

Advisory Group Meeting #9 Briefing Document

Introduction

This briefing document provides Advisory Group members with the background information needed to engage in discussions at the February 4, 2021 Clean Water Plan Advisory Group Meeting. The objectives for the meeting are to:

- Provide an overview of King County's Clean Water Healthy Habitat Strategic Plan and how it relates to the Clean Water Plan.
- Respond to Advisory Group interests related to the County's assumptions and analytical approach driving Action results, specifically around costing, pollutant loading, and collaboration and partnership requirements.
- Preview upcoming regional engagement outputs that will provide detailed Actions information, specifically the Actions Technical Workshops and the Actions Document, and discuss Advisory Group member feedback on the outlines for these outputs.
- Review next steps in the planning process.

For reference, [Attachment A](#) includes all 35 Clean Water Plan Actions for exploration, organized by Decision Area.

Clean Water Healthy Habitat Strategic Plan

King County's Clean Water Plan is encompassed under the Clean Water Healthy Habitat Initiative. A briefing on the initiative and supporting strategic plan will be part of the Advisory Group meeting. An Executive Summary of the strategic plan is included as [Attachment B](#) as an introduction.

Meeting #9 Discussion – Part 1

In the meeting, Advisory Group members will have the opportunity to ask clarifying questions related to the Clean Water Healthy Habitat Strategic Plan and its relationship to the Clean Water Plan.

Synthesis of Advisory Group Feedback

After Meeting #8 (held December 10, 2020), Advisory Group members were given the opportunity to provide written input on what additional information or questions would be most helpful to them to better understand the performance results for the Actions. Advisory Group facilitator Rob Greenwood also held one-on-one check-in calls with all Advisory Group members to discuss how best to formulate and share the results of the Action Analysis as the County nears completion of its efforts to characterize the Actions and begins the process of formulating alternative Strategies.

See [Attachment C](#) of this briefing document for a non-attributed synthesis of feedback collected across these two consultations.

Meeting #9 Discussion – Part 2

Based on Advisory Group member feedback submitted via the input opportunity and check-in calls, the key areas of Advisory Group interest fall into three categories -- cost, pollutant reduction, and collaboration and partnership requirements. At the Advisory Group meeting on February 4, the Clean Water Plan team will walk through the County's approach to analyzing Actions relative to these three areas, responding to members' key areas of interest. The intent is to cultivate a deeper understanding of the County's approach to Action Analysis results.

In the meeting, Advisory Group members will also have the opportunity to ask clarifying questions and provide perspective related to the County's approach to these areas.

Actions External Engagement: Compiling and Sharing the Action Details and Analysis

The Clean Water Plan team is currently developing two regional engagement efforts to share Action details and analysis results. Dates will be scheduled for as soon as March 2021, with the goal of these dual efforts is to provide a better understanding of the 35 Actions the County has characterized and to prepare interested and impacted parties to engage in the Strategies phase of the planning process. The team is sharing working draft outlines of these two efforts to provide the Advisory Group with a sense of the detail and content to be included. Advisory Group member thoughts on whether these efforts fulfill members' information needs and the perceived information needs of the broader regional community as they pertain to Actions and in preparation for their respective engagement on Strategies is appreciated. **Note that these outlines are initial working drafts and the specifics are likely to change leading up to the roll-out of these regional engagement efforts.**

Actions Technical Workshops – Working Draft Approach and Content Outline

In March-May 2021, the Clean Water Plan team plans to host three Actions Technical Workshops centered on the topics of Wastewater Treatment, Wet Weather Management, and Wastewater System Operations and Health. These workshops will be preceded by the release of a pre-recorded introductory video to update interested parties on Clean Water Plan development progress and set the context for the Actions Technical Workshop series. The purpose of these technical workshops is to present the “why and what” of the 35 Actions to assist interested parties with engaging in an upcoming conversation about Strategies. Specifically, the workshops will highlight:

- **Action Descriptions** – providing an overview of individual (or groups) of Actions related to their purpose and why they are relevant to the Clean Water Plan, water quality, and a healthy wastewater treatment system for the region; and
- **Action Performance** – providing data and analysis for individual (or groups) of Actions related to what is needed to deliver the Action and the outcomes, including pollutant removal potential and total cost.

See [Attachment D](#) of this briefing document for more details on the working draft approach and content outline of the three Actions Technical Workshops and an accompanying introductory module.

Actions Document – Working Draft Outline

Included as [Attachment E](#) of this briefing document is a working draft outline of the Actions Document, which the County plans to release prior to the Actions Technical Workshops. The Actions Document will provide comprehensive information on the Action details and analysis results, and act as a companion to the Actions Technical Workshops. This document will provide technically-oriented information to enable a clearer understanding by interested and impacted parties of: the purpose and nature of Actions; major assumptions; regulatory implications; implementation considerations; and characterization of Action performance, including pollutant parameter reduction, cost, and other significant outcomes.

Meeting #9 Discussion – Part 3

At the February 4 meeting, the Clean Water Plan team would like to engage Advisory Group members in discussion about the purpose and content of these two upcoming regional engagement efforts relative to Advisory Group member expressed interests in receiving information related to Action Analysis results. The discussion will also explore how best to meet the information needs/interests of the broader regional community in laying the foundation for engaging in forthcoming Strategies conversations.

Attachment A: Clean Water Plan Actions for Exploration

Decision Area: Wastewater Treatment

Actions for Exploration:

- Status Quo Treatment
- Nutrients – Individual Discharge Permits
- Nutrients – Single Bubble Permit Across Discharges
- Nutrient Trading – Multiple Source Discharge Management
- Advanced Treatment for WTD Treatment Plants
- Decentralized Satellite Treatment Plants
- Building Scale Decentralized Treatment
- Decentralized Combined CSO/Wastewater Treatment
- Status Quo Onsite Septic System Program
- Expanded Onsite Septic System Program
- Decentralized Onsite Septic System Program

Decision Area: Wet Weather Management

Actions for Exploration:

- Status Quo CSO Program
- Modified Approaches to CSO Control
- Expanded Stormwater Treatment at Existing Facilities
- Stormwater Treatment at New Facilities
- Stormwater Retrofit Fund – Regional Collaboration

Decision Area: Pollution Source Control/ Product Stewardship

Actions for Exploration:

- Status Quo Source Control Program
- Expanded Pollution Source Control Program
- Far Reaching Pollution Source Control Program

Decision Area: Asset Management, Resiliency, and Redundancy

Actions for Exploration:

- Run to Failure Asset Management
- Low Level Asset Management Investment
- Medium Level Asset Management Investment
- High Level Asset Management Investment
- Adaptive Sea Level Rise

Decision Area: Resource Recovery

Actions for Exploration:

- Status Quo Biosolids and Energy Program
- Enhanced Biosolids and Energy Program

Decision Area: Wastewater Conveyance

Actions for Exploration:

- Status Quo Conveyance
- 5-year Conveyance Level of Service
- Inflow and Infiltration – Point of Sale Inspections
- Inflow and Infiltration – Peak Flow Standards
- Smart Utility – Data Driven, Real Time Control

Decision Area: Legacy Pollution

Actions for Exploration:

- Status Quo Sediment Management
- Accelerated Legacy Pollution Program
- Far Reaching Legacy Pollution Program

Attachment B: Clean Water Healthy Habitat - Executive Summary



EXECUTIVE SUMMARY

Purpose

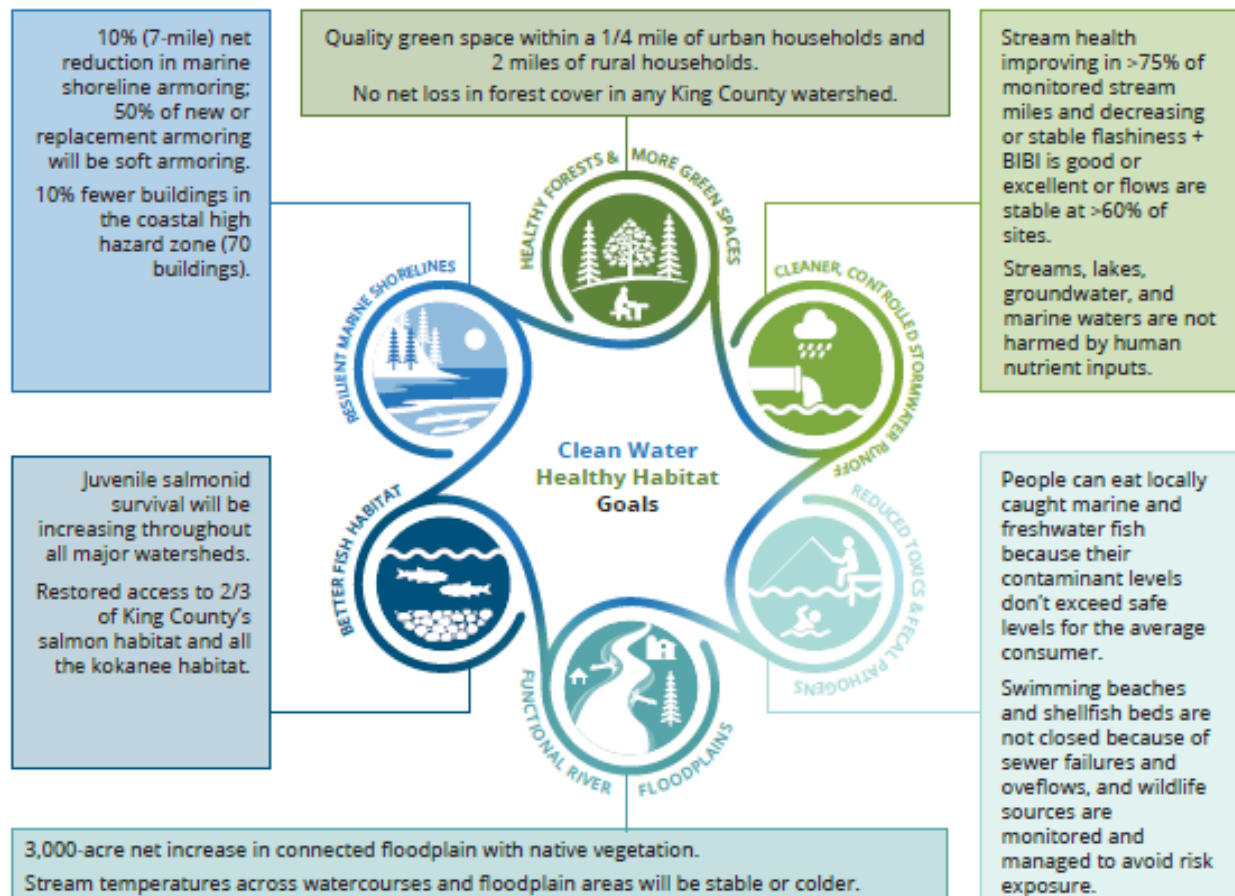
King County is committed to protecting and restoring clean water and healthy habitat in order to preserve and enhance the health and well-being of 2.25 million residents, fulfill tribal treaty rights, eliminate inequities, and recover threatened salmon and orca.

The purpose of the Clean Water Healthy Habitat Strategic Plan (strategic plan) is to align the County's work around shared goals and empower employees to deliver faster, better results in their work with residents, businesses, tribes, customers, partners, other governments, and nonprofit organizations.


In 2019, Executive Dow Constantine created the Clean Water Healthy Habitat Initiative with a vision to protect and restore the water and land that sustains all of us within a generation. The Executive challenged King County leaders and employees across the enterprise to:

- Develop measurable 30-year goals that represent environmental success and benefit all people, including, and especially, marginalized communities.
- Develop strategies that guide County work to achieve better, faster results; incorporate equity practices; and yield higher returns on public investments.

Goals The strategic plan centers on six 30-year goals that are connected to 12 measures to assess King County's progress.



In addition, each goal has 30-year outcomes described in three parts, like braided strands:

- 
- The best environmental outcomes believed to be possible in 30 years.
 - Benefits to humans from clean water and healthy habitat, when and where they need them.
 - Elimination of racial inequities and an increase in equitable environmental outcomes and benefits.

Healthy Forests and More Green Spaces:

- Forest cover and green spaces are protected, increasing, widespread, equitably distributed, healthy, and connected in ways that sustain habitat, stream functions, carbon storage, clean air, cool waters and air temperatures, and natural streamflow.
- Human health is supported, and cultural values and practices are ensured.
- Inequities in people's access to quality green space are eliminated by 2050.

Cleaner, Controlled Stormwater Runoff:

- Stormwater has less contaminants, pathogens, or nutrients; and water levels and stream flows are healthy for fish and aquatic life.
- Waters consistently provide swimming, fishing, and shellfishing opportunities and drinking water is clean.
- All lives, homes, and properties are protected from stormwater-related flooding.

Reduced Toxics and Fecal Pathogens:

- Toxic chemicals and fecal pathogens consistently decline and the health of salmon and resident orca is improving.
- King County is responsive to fecal pathogen contamination so that waters are safely managed and open for swimming and recreation for all people in King County.
- People can enjoy fish, crab, and other shellfish that are safer to eat, more plentiful, and sustainable.

Functional River Floodplains:

- Floodplains are reconnected and revegetated.
- Reductions in flood risk to people and structures, while supporting agriculture and open space.
- People have equitable access to flood programs and projects and King County provides targeted support to land and capital for farmers who are Black, Indigenous, and people of color (BIPOC).

Better Fish Habitat:

- Native wild fish populations are thriving and self-sustaining, with ample healthy habitat.
- People can enjoy locally caught fish.
- Tribes have abundant salmon to provide for their economic and cultural prosperity.

Resilient Marine Shorelines:

- Beach and marine shoreline habitat processes are maintained and fewer structures are vulnerable to sea level rise.
- People aren't in harm's way, functions provided by vital infrastructure are sustained, and residents' drinking water is clean.
- Treaty rights can be meaningfully exercised related to fish and shellfish.

Attachment C: Synthesis of Advisory Group Consultation Feedback

Advisory Group members have been recently provided two opportunities to provide input on what additional information would be most helpful in understanding the performance results of the Actions and feedback on how to characterize and present Action Analysis results. Input opportunities consisted of: an Excel table providing summary descriptive text for each of the 35 Actions along with the key factors, considerations, and assumptions that materially impact performance results; and one-on-one phone calls to discuss the most effective form and format for sharing Action Analysis results. These consultations have highlighted two primary areas of Advisory Group member interest relative to Action Analysis findings.

1. Approach to Characterizing Key Performance Attributes of Actions
 - a. **Action Costing** – Advisory Group members have expressed an interest in better understanding how the County has derived the total and annual cost estimates for each Action. This includes understanding the scope of costs included (e.g., those directly borne by the County, those borne by partners, those needed to set new policies), the type of costs included (e.g., capital, O&M, overhead), the nature of the costs included (e.g., discretionary, non-discretionary), and understanding the cost estimation methods used.
 - b. **Action Pollutant Loadings** – Advisory Group members have expressed interest in better understanding how the County has derived estimates for the pollutant loadings reductions associated with each action. This includes understanding what baselines have been used, the degree of certainty associated with reductions (e.g., as related to the voluntary or mandatory nature of an action, or as related to the hard or soft infrastructure nature of an action), as well as other influencing factors, such as seasonality. Members also expressed an interest in context setting that would allow for answering the “so what” question relative to any given loadings reduction (e.g., what percent of load is reduced, what impact will such a load reduction have on the receiving environment).
 - c. **Action Collaboration and Partnership Requirements** – Advisory Group members have observed that several of the 35 Actions the County has been characterizing are dependent on actions that would be taken by individuals, enterprises, or public agencies not under the direct control of the County, resulting in the need for establishing an enhanced collaboration and partnership context for effectively implementing the Actions. Advisory Group members expressed interest in understanding how the County is characterizing any interdependencies that Actions have with other regional actors and how the County will approach moving forward with any Actions contained in the final Clean Water Plan that have critical interdependencies for their success. Particular areas of interest included: understanding which Actions reside under the direct control of the County versus those where there is an ability to influence; Actions that would reside within the current WTD service area versus reside within the broader King County or regional geography; those Actions that are a direct WTD/County obligation versus the obligation of other partners/parties; and the relationship of Actions to other County/regional plans (e.g., Duwamish sediment cleanup).

2. Approach to Formulating and Formatting Action Details and Analysis Results
 - a. Advisory Group members expressed interest in selective access to Action Analysis result details (reflective of the granularity currently available from the Action Description Sheets). Members would like the option, but not the obligation, to review all Action Description Sheets (or have access to a similar level of detail).
 - b. Recognizing that the Action Description Sheets across the 35 Actions the County has characterized runs in many hundreds of pages of material, Advisory Group members expressed interest in access to some form of summary template (or similar format) that provides key highlights for each Action. Hopeful that such a summary could run no more than the two sides of a single page, Advisory Group members suggested focusing on the following information areas: one paragraph description of the Action; quantitative pollutant parameter results; quantitative cost results; other performance information uniquely germane to the Action; and key learnings/findings. Consistent with previously provided Advisory Group member feedback, interest also remains high in understanding the assumptions driving the analysis, methods used (how analysis was conducted), and conclusions/recommendations.
 - c. Even as Advisory Group members indicated an interest in optional access to detailed analysis information, several members emphasized the need to provide a “big picture” view of the findings from the Action Analysis. These members suggested starting with the big picture (what are the key learnings and conclusions), and then drill down into individual Action Analysis results. Overall, Advisory Group members presented a picture of a hierarchy of Action Analysis results-related information: a high-level overview focused on key takeaway points; individual templates (or similar summary information) for each Action capturing analytical result highlights; and finally the option of selectively probing more deeply to examine the full spectrum of information available from the analysis of each Action.
 - d. Advisory Group members also expressed an interest in visual or other means that “groups” the data and findings to provide an accessible, intuitive understanding of Action Analysis results (e.g., comparison charts and visuals). Members signaled that it remains difficult to understand the relationships between and among the 35 Actions and how the performance of one may influence the performance of others. In this context, some members indicated it will be helpful to better isolate and articulate the key choices and opportunities the region faces (as reflected across the spectrum of the 35 Actions) to help better focus Advisory Group member understanding and for purposes of enabling an effective regional dialog about the Clean Water Plan.

Attachment D: Draft Approach and Content Outlines for the Actions Technical Workshops

Note: These approach and content outlines are initial working drafts and the specifics are likely to change over the course of planning activities for the Actions Technical Workshops.

Draft Approach to the Workshop Series

Workshop Series Introduction

- **Goal:** Update interested parties on Clean Water Plan development progress and set the context for Actions Technical Workshop series.
- **Audience:** Technical and non-technical (environmental groups, Advisory Group members, elected officials and staff, Metropolitan Water Pollution Abatement Advisory Committee members (MWPAAC), plus Community Based Organizations (CBOs) and the broader public)
- **Format:** Pre-recorded
- **Length:** < 1hr
- **Timing:** Released in March 2021 in advance of the Actions Technical Workshops

Three Technical Workshops - Wastewater Treatment, Wet Weather Management, Wastewater System Operations and Health

- **Goal:** Orient audiences to the Clean Water Plan Actions
- **Audience:** Technical (environmental groups, Advisory Group members, elected officials and staff, MWPAAC, CBOs)
- **Format:** 2 modules per workshop
 - **Module 1 (< 60 mins, pre-recorded):** Background/Technical overview
 - **Module 2 (2-2.5 hr virtual meeting):** Action concepts/approaches
 - Break-out rooms for more focused presentations, interactive Q&A
- **Timing:** April – May 2021

Draft Content Outline: Introductory Video

- I. Introduction
 - a. Overview of Clean Water Plan Process
 - b. Purpose of Clean Water Plan Actions
 - i. Provide the range of Actions in an example decision area, e.g., wastewater system level of service treatment
 - c. Use of Actions in Developing Strategies
 - i. Continue the example in highlighting why individual Actions cannot stand alone, and that the Clean Water Plan will combine individual actions into strategies that consider the decision areas together.
- II. Action Development Process
 - a. Decision Areas

- b. Scope of Actions Considered within Decision Areas
 - c. Process to Develop Action (Methodology)
 - i. Conceptual Description
 - ii. Analysis and Evaluation
- III. Actions Overview
 - a. Treatment Plants and Wet Weather Facilities
 - b. Wet Weather Management
 - c. Pollution Source Control/Product Stewardship
 - d. Asset Management/Resiliency/Redundancy
 - e. Resource Recovery
 - f. Legacy Pollution
 - g. Wastewater Conveyance System
- IV. Planning Considerations
 - a. Regional Setting
 - i. Regional water bodies
 - ii. Population growth
 - iii. Land use patterns
 - iv. Economic conditions
 - v. Climate Change and regional effects
 - b. Factors affecting water quality
 - i. Types of pollutants
 - ii. Sources of pollution
 - iii. Pollution Pathways
 - iv. Water quality impacts
 - v. Regional Water quality
 - vi. Climate change
 - vii. Pollution pathways
 - c. Authorizing environment and organization
 - i. Regulations
 - ii. Regional clean water services and programs
- V. Closing
 - a. What to expect in the upcoming Actions Technical Workshops
 - b. Other opportunities to stay engaged in the Clean Water Plan

Draft Workshop Content Breakdown

Potential Approaches and Groupings within Workshops

Workshop 1: Wastewater Treatment	Workshop 2: Wet Weather Management	Workshop 3: Wastewater System Ops & Health
Approaches:		
Increasing Treatment at Regional Systems	Treatment of More Stormwater	System Re-Investment
De-centralization for Resilience and Capacity	New Stormwater Management	Conveyance System Capacity
Control and Removal of Pollutants Prior to Treatment	CSO Control	Climate Change Adaptation
	Collection System Optimization	Onsite Management
		Resource Recovery Opportunities

Note: Order of workshops may be adjusted.

Potential Actions Grouping within Workshops

Workshop 1: Wastewater Treatment
<i>i. Increasing Treatment at Regional Systems</i>
1. Existing levels of treatment
Nutrient Removal Group
2. Individual plant nitrogen removal
3. KC WTD Nitrogen bubble permit
4. Nutrient trading – Multiple Source Discharge Management
End Nutrient Removal Group
5. Advanced treatment upgrades
<i>ii. De-Centralization for Resilience and Capacity</i>
Resilience and Capacity Group
6. Building scale on-site decentralized treatment
7. Decentralized small-scale satellite plants to offset conveyance capacity constraints
8. Decentralized small-scale satellite plants for OSS conversion
9. Decentralized CSO/WW treatment plants
<i>iii. Control and Removal of Pollutants</i>
Pollution Source Control Group
1. Status quo pollution source control
2. Expanded pollution source control

3. Far-reaching pollution source control
Legacy Pollution Group
1. Status quo legacy pollution
2. Accelerated legacy pollution
3. Far-reaching legacy pollution

Workshop 2: Wet Weather Management

i. Treatment of More Stormwater

1. Leverage existing King County infrastructure

ii. New Stormwater Management

2. New stormwater management infrastructure
3. Regional stormwater retrofit fund

iii. CSO Control

1. Status quo CSO program
2. Alternative CSO program

iv. Collection System Optimization

3. Systemwide I/I reduction
4. Incentivized peak flow reduction
5. Smart utility

Workshop 3: Wastewater System Operations and Health

i. System Re-Investment

1. Low Investment Level
2. Medium Investment Level
3. High Investment Level
4. No Investment Level

ii. Climate Change Adaptation

5. Adaptive Sea Level Rise

iii. Conveyance System Capacity

1. 20-year LOS
2. 5-year LOS

iv. Onsite Management

1. Status quo OSS program
2. Far-reaching OSS program

v. Resource Recovery Opportunities

1. Status quo biosolids and energy programs
2. Enhanced quo biosolids and energy programs

Draft Content Outline:

Actions Technical Workshop 1 – Wastewater Treatment

- I. Welcome, convening info, agenda/plan for the day
- II. Clean Water Plan Overview
- III. Module 1: Technical Overview – context/existing conditions
 - a. Wastewater sources and characteristics
 - b. Levels of Treatment and current regulatory environment
 - c. Liquid Process
 - d. Solids Process
- IV. Module 2: Wastewater Treatment Approaches and Actions Explored
 - a. Approaches Overview
 - i. Increasing Treatment at Regional Systems
 - ii. De-Centralization for Resilience and Capacity
 - iii. Control of and Removal of Pollutants
 - b. Approaches
 - i. Increasing Level of Treatment at Regional Systems
 - 1. Wastewater Treatment Action 1: Existing levels of treatment
 - 2. Nutrient Removal Grouped Concept Approach:
 - a. Wastewater Treatment Action 2: Individual plant nitrogen removal
 - b. Wastewater Treatment Action 3: KC WTD Nitrogen bubble permit
 - c. Wastewater Treatment Action 4: Water quality trading – multiple source discharge
 - 3. Wastewater Treatment Action 6: Advanced treatment upgrades
 - 4. *Facilitated Q&A*
 - ii. Decentralized Systems for Resilience and Capacity
 - 1. Resilience and Capacity Grouped Concept Approach:
 - a. Wastewater Treatment Action 7: Building scale on-site decentralized treatment
 - b. Wastewater Treatment Action 8: Decentralized small-scale satellite plants to offset conveyance capacity constraints
 - c. Wastewater Treatment Action 9: Decentralized small-scale satellite plants for OSS conversion
 - d. Wastewater Treatment Action 10: Decentralized CSO/WW treatment plants
 - 2. *Facilitated Q&A*
 - iii. Control and Reduction of Pollutants
 - 1. Pollution Source Control Grouped Concept Approach:
 - a. Pollution Source Control and Product Stewardship Action 1: Status quo pollution source control
 - b. Pollution Source Control and Product Stewardship Action 2: Expanded pollution source control
 - c. Pollution Source Control and Product Stewardship Action 3: Far-reaching pollution source control
 - 2. Legacy Pollution Grouped Concept Approach:
 - a. Legacy Pollution Action 1: Status quo legacy pollution
 - b. Legacy Pollution Action 2: Accelerated legacy pollution

- c. Legacy Pollution Action 3: Far-reaching legacy pollution
- 3. *Facilitated Q&A*
- c. Closing

Draft Content Outline:

Actions Technical Workshop 2 – Wet Weather Management

- I. Welcome, convening info, agenda/plan for the day
- II. Clean Water Plan Overview
- III. Review first Workshop and look ahead to third
- IV. Module 1: Technical Overview (context/existing conditions)
 - a. Landscape context (natural v developed)
 - b. Wet weather runoff sources and characteristics (impervious surface, pollutants on the landscape)
 - c. Types (stormwater, CSO, I/I)
- V. Module 2: Wet Weather Management Approaches and Actions Explored
 - a. Approaches Overview
 - i. Treatment of More Stormwater
 - ii. New Stormwater Management
 - iii. CSO Control
 - iv. Collection System Optimization
 - b. Approaches
 - i. Treatment of More Stormwater
 - 1. Stormwater Action 1: Leverage existing King County Infrastructure
 - ii. New Stormwater Management
 - 1. Stormwater Action 2: New stormwater management infrastructure
 - 2. Regional stormwater retrofit fund
 - iii. *Facilitated Q&A*
 - iv. CSO Control
 - 1. CSO Action 1: Status quo CSO program
 - 2. CSO Action 2: Alternative CSO program
 - v. Collection System Optimization
 - 1. Conveyance Action 3: Systemwide I/I reduction
 - 2. Conveyance Action 4: Incentivized peak flow reduction
 - 3. Conveyance Action 5: Smart utility
 - vi. *Facilitated Q&A*
 - c. Closing

Draft Content Outline:

Actions Technical Workshop 3 – Wastewater System Operations and Health

- I. Welcome, convening info, agenda/plan for the day
- II. Clean Water Plan Overview
- III. Review first and second Workshop
- IV. Module 1: Technical Overview (context/existing conditions)
 - a. Overview of system size, age, etc.

- b. Existing standards/levels of service
- c. Resource Recovery
- V. Module 2: Wastewater System Operations and Health Approaches and Actions Explored
 - a. Approaches Overview
 - i. System Re-Investment
 - ii. Climate Change Adaptation
 - iii. Conveyance System Capacity
 - iv. Onsite Management
 - v. Resource Recovery Opportunities
 - b. Approaches
 - i. System Re-Investment
 - 1. Asset Management, Resiliency, Redundancy Action 1: Low Asset Management Investment Level
 - 2. Asset Management, Resiliency, Redundancy Action 2: Medium Asset Management Investment Level
 - 3. Asset Management, Resiliency, Redundancy Action 3: High Asset Management Investment Level
 - 4. Asset Management, Resiliency, Redundancy Action 4: No Asset Management Investment Level
 - ii. *Facilitated Q&A*
 - iii. Climate Change Adaptation
 - 1. Asset Management, Resiliency, Redundancy Action 5: Adaptive Sea Level Rise
 - iv. Conveyance System Capacity
 - 1. Conveyance Action 1: 20-year Level of Service
 - 2. Conveyance Action 2: 5-year Level of Service
 - v. *Facilitated Q&A*
 - vi. Onsite Management
 - 1. Wastewater Treatment Action 11: Status quo OSS program
 - 2. Wastewater Treatment Action 12: Far-reaching OSS program
 - vii. Resource Recovery Opportunities
 - 1. Resource Recovery Action 1: Status quo biosolids and energy programs
 - 2. Resource Recovery Action 2: Enhanced quo biosolids and energy programs
 - viii. *Facilitated Q&A*
 - c. Closing

Attachment E: Draft Actions Document Outline

Note: This outline is a working draft and the specifics are likely to change leading up to the release of the Actions Document.

Clean Water Plan Actions Document – Water Quality Investment Program Options *Working Concept Outline*

(Document that presents to the region the range of and planning-level detail on the conceptual water quality investment Actions.)

- I. Introduction
 - a. Overview of Clean Water Plan Planning Process
 - b. Purpose of Clean Water Plan Actions
 - c. Using Actions to Developing Strategies
- II. Action Development Process
 - a. Decision Areas
 - b. Scope of Actions Considered within Decision Areas
 - c. Action Development and Analysis Methodology
 - i. Conceptual Description
 - ii. Analysis and Evaluation
- III. Wastewater Treatment
 - a. Wastewater Treatment Decision Area Overview
(Introduction to Decision Area, performance being explored, questions Decision Area is seeking to address, acknowledgement of current state/progress, etc.)
 - b. *Example:* [Status Quo Treatment Action]
 - i. Program Overview
(Overview/summary and key components of Action)
 - ii. Existing King County Policies
(Relevant existing King County policies)
 - iii. Regulatory Implications
(Relevant existing regulatory requirements and how Action complies; and other regulatory considerations/assumptions/opportunities)
 - iv. Major Assumptions
 - v. ESJ Opportunities
 - vi. Implementation Considerations
(Implementation challenges and risks; duration and timeline information)
 - vii. Graphics
(maps, layouts, etc.)
 - viii. Analysis and Evaluation Results
(variables defined in order to develop strategies.)
 - 1. Water Quality
 - a. Potential change in total pollutant load
 - b. Receiving waterbodies impacted
 - c. Relative load of pollutant to waterbody
 - d. ESJ outcomes
 - 2. Cost
 - a. Total King County capital cost

- b. Annual King County O&M and administrative costs
 - c. Cost to other entities
 - d. ESJ outcomes
 - 3. Additional Performance Outcomes of note/significance
(Key outcomes of importance for the qualitative outcomes identified during action development, analysis, and evaluation. For example, additional ESJ, sustainability, management and operations, community, etc. outcomes.)
- c. Repeat for each Action within Decision Area
- IV. Wet Weather Management
(Includes a section for each Action within the Wet Weather Management Decision Area)
- V. Pollution Source Control and Product Stewardship
(Includes a section for each Action within the Pollution Source Control and Product Stewardship Decision Area)
- VI. Asset Management, Resiliency, and Redundancy
(Includes a section for each Action within the Asset Management, Resiliency, and Redundancy Decision Area)
- VII. Resource Recovery
(Includes a section for each Action within the Resource Recovery Decision Area)
- VIII. Wastewater Conveyance
(Includes a section for each Action within the Wastewater Conveyance Decision Area)
- IX. Legacy Pollution
(Includes a section for each Action within the Legacy Pollution Decision Area)