



## Advisory Group Meeting #6 Briefing Document

### Introduction

This briefing document provides Advisory Group members with the background information needed to engage in discussions at the June 11, 2020 Clean Water Plan Advisory Group Meeting. The objectives for the meeting are to:

- Provide an overview of the evaluation framework
- Present and discuss action evaluation categories and criteria
- Provide a regional engagement update and receive feedback on options for future engagement

### Overview of the Evaluation Framework

The Clean Water Plan process continues to move through a series of steps to lay the foundation for a thoughtful and transparent evaluation to make critical decisions that will shape the scope and focus of water quality investments in the coming decades. The planning process will explore alternative investments the County can make in support of wastewater treatment services and regional water quality improvements, seeking to inform decisions on the best investments for regional water quality. For a graphical representation of the planning process, and its relationship to the meeting topics for the Advisory Group, visit Attachment A: Clean Water Plan Milestones & Advisory Group Meeting Topics.

The Clean Water Plan alternative investments exploration process will include two steps: first, an evaluation of potential actions and second, an evaluation of alternative strategies. The following provides an overview of this two-step process.

#### Step 1: Action Evaluation

Actions are the potential specific programs and associated projects within each decision area that are being considered as part of the Clean Water Plan. Attachment B provides an overview of the decision areas and associated actions (we reviewed and discussed these at the last Advisory Group meeting). In this stage of the evaluation, the Planning Team is developing an understanding of each action's potential water quality outcomes and other impacts to:

- Understand the impacts of each action, particularly as related to the evaluation categories (see below and Attachments C & D)
- Compare actions against each other, both within and across decision areas
- Identify actions and inform rationale for actions that are not evaluated further
- Inform the grouping of actions into water quality investment strategies

#### Step 2: Strategy Exploration

A strategy is the grouping of multiple actions that incorporates timing, sequencing, and inter-relationships, and reflects a complete water quality investment approach the County could take. At this

phase in the process, the Planning Team will explore the water quality outcomes, benefits, and impacts of comprehensive water quality investment approaches to facilitate a comparison and understanding of tradeoffs, and to inform the shaping and selection of a preferred strategy. The Planning Team expects the strategy evaluation process to have similarities to the action evaluation process, but not be identical, since evaluation of strategies will allow for a more comprehensive, systemwide understanding of outcomes, such as affordability and overall water quality outcomes.

## Action Evaluation: Analytical Approach

### Overview

The Planning Team has developed five categories to evaluate the performance of the actions. Each action will be explored using specific criteria related to each of the five evaluation categories. This will provide both a quantitative understanding of water quality and cost outcomes and a primarily narrative understanding of management and operations, community, and sustainability outcomes for each action. The five categories are:

- **Water Quality:** addresses action performance relative to a specified set of pollutant parameters (e.g., bacteria, nitrogen, PCBs) in regional waterbodies (e.g., Puget Sound, Lake Washington) and will seek to associate an action's pollutant reduction performance to ecological endpoints (e.g., Orca) and public health endpoints (e.g., contact recreation).
- **Cost:** addresses action performance relative to operations, maintenance, capital, and other costs on a full life-cycle cost basis.
- **Management and Operations:** addresses action performance relative to reliability and resilience, legal and regulatory obligations, and public confidence.
- **Community:** addresses action performance relative to construction impacts in neighborhoods, land use and economic development, and community livability.
- **Sustainability:** addresses action performance relative to energy use, carbon footprint, resource recovery, and ecosystem services.

Attachment C outlines the two categories that will be evaluated quantitatively: water quality and cost. The evaluation criteria for both water quality and cost lend themselves to quantitative evaluation and have a more direct tie to quantitative results. The table includes a description of the criteria as well as the metrics proposed for evaluating performance.

Attachment D provides the criteria for evaluating the performance of each action relative to the management and operations, community, and sustainability evaluation categories. These categories lend themselves more readily to a narrative description of impacts and provide perspective to assess against water quality and cost outcomes, as well as are important to reflect County and community values and initiatives.

Development of evaluation categories has drawn on a combination of inputs, including the community priorities derived from various regional engagement activities, including feedback provided by the Advisory Group. Attachment E provides an overview of the connection between the eleven Community Priorities and the five Evaluation Categories. Please note that the Planning Team has structured the evaluation categories and the criteria within each to be mutually exclusive of each other. In that way, each criterion addresses a single, unique performance characteristic of an action alternative and there is no risk of double counting performance benefits as the analysis is conducted. The categories and associated criteria are still being refined, and there is flexibility to define the scope of analysis and placement of individual criteria within each.

## Initial Thinking on Assumptions

As with any planning process, assumptions about future conditions are required. Some example assumption categories and references are included in Attachment F to provide Advisory Group members with context during the evaluation discussion. These assumptions will be used in several ways. Assumptions will be needed to inform development of actions or water quality investments to be analyzed in the planning process. Assumptions are also needed for the analysis of actions. It is expected that after initial analysis of actions and/or strategies, sensitivity analysis will be done to test some of the assumptions. Examples are included as Appendix F. These examples are not intended as a complete list, and resources to inform assumptions continue to be collected.

## Action Evaluation: Equity Implications

The Clean Water Plan equity analysis will be informed by the King County [Equity and Social Justice Plan](#). This plan identifies the indicators to establish a baseline of equity in King County, referred to as [Determinants of Equity](#). For the Clean Water Plan, WTD has identified six of the fourteen determinants that have particularly high affinity relative to the actions under consideration. These determinants are:

- **Equity in County practices** that eliminates all forms of discrimination in County activities to provide fair treatment for all employees, contractors, clients, community partners, residents and others who interact with King County.
- Safe, affordable, high quality and healthy housing for all people.
- **Healthy built and natural environments** for all people that include mixes of land use that support jobs, housing, amenities and services; trees and forest canopy; clean air, water, soil and sediment.
- **Parks and natural resources** that appeal to the interests of all communities and provide safe, clean and quality outdoor spaces, facilities and activities.
- **Economic development** that supports local ownership of assets, including homes and businesses, and ensures fair access for all to business development and retention opportunities.
- **Strong, vibrant neighborhoods** that support all communities and individuals through strong social networks, trust among neighbors, and the ability to work together to achieve common goals that improve the quality of life for everyone in the neighborhood

These determinants of equity act as a foundation for the equity and social justice evaluation criteria. The evaluation of equity and social justice is weaved in throughout the evaluation categories as narrative descriptions of how the action disproportionately burdens or benefits communities for the equity conditions related to each category – now and in the future, rather than parsed out as its own category. Specifically, equity outcomes will seek to characterize impacts of actions to communities that experience known disparities and have been historically underrepresented in public processes (e.g., communities of color, low-income populations).

Equity outcomes are anticipated to encompass:

- **Geographic Distribution of Services:** Seeks to identify impacts of actions related to clean water infrastructure and operations (e.g., location of infrastructure, target outreach locations) on the built (e.g., housing and public services) and natural environments (e.g., air, water, soil, fish and wildlife habitat) as well their ability to enhance or detract from strong, vibrant neighborhoods.

- **Geographic Impact of Services:** Seeks to characterize the impact of actions on specific geographies of interest (e.g., water bodies, neighborhoods) and the ways communities interact with those geographies (e.g., subsistence fishing, recreation), and the contribution those actions make to natural environments, health and human services, and access to parks and natural resources.
- **Gaps of Services:** Seeks to understand how actions may contribute to or lessen disparities in system reliability, improvements, failures, and mitigation (e.g., greater rates of overflows in certain neighborhoods due to infrastructure age and rates of repair) and the contribution those actions make to safe, affordable, high quality and healthy housing and neighborhoods.
- **Indirect Impact of Services:** Seeks to characterize the impact of actions on economic development, livability, and affordability within communities (e.g., job opportunities, economic opportunities).
- **Magnification of Impacts/Choices:** Seeks to understand how impacts of cost and benefits are absorbed within the context of specific communities (e.g., costs and benefits may accrue differently for communities of color, lower socio-economic communities, as well as for members of Indian tribes with treaty right to hunt, fish, and gather).

## Regional Engagement Update

### Overview

From Fall 2018 to Spring 2020, the Clean Water Plan team has engaged communities across the region and is continuing to do so throughout 2020. The [2019 Outreach Summary](#) provides an overview of those activities as of Fall 2019. Highlights include:

- **Community Interviews:** Project staff interviewed individuals from 24 organizations representing diverse communities and interests through 30- to 60-minute phone discussions. Participants learned about the planning effort and provided input on how to effectively inform, involve, and collaborate with communities.
- **Clean Water Plan Workshop:** At the workshop, 38 participants learned directly from King County staff and each other about the issues affecting water quality and the need for the Clean Water Plan. Participants gave input on their priorities and key trends affecting water quality.
- **Fairs and Festivals:** King County set up a booth at seven events in the summer and fall of 2019 to meet communities in their own neighborhoods and collect feedback on their clean water priorities. The events were in diverse communities and staffed by teams skilled at multicultural outreach who spoke multiple languages. During these seven events, the team engaged over 400 individuals from a broad spectrum of cultures, age groups, levels of educational attainment, and geographies.
- **Fall 2019 Online Open House:** From July 9 to November 1, 2019, King County hosted an online open house to share information about the Clean Water Plan. The online open house included a public questionnaire to collect input on community clean water priorities. The questionnaire was available in nine languages. The County received 336 responses to the questionnaire.
- **King County Employee Events:** Staff from the Department of Natural Resources and Parks (DNRP), with an emphasis on staff from the Wastewater Treatment Division (WTD), provided their input and feedback into the planning process through workshops, open houses, “lunch and learn” sessions, briefings, and internal communications efforts.
- **Youth Engagement Events:** King County collected a questionnaire from WTD college intern program applicants, conducted targeted outreach at high school career fairs, and held a

workshop for DNRP high school and college interns to provide information and collect input on clean water priorities.

- **Webinar:** On March 25, 2020, the Clean Water Plan project hosted a lunchtime educational webinar, which was designed to inform the public about the existing conditions in our wastewater treatment system and highlight areas for decision-making for the Clean Water Plan. This was an opportunity to share technical planning information with the community in a public-friendly and accessible way. The webinar was designed to provide participants with background and context so they can weigh in on future Clean Water Plan decisions. A majority of the 278 attendees (60%) identified as either government employees or water professionals.

### Community Based Organization Partnership

The Clean Water Plan is partnering with community based organizations (CBOs) as trusted advocates in the community who are experts in the best ways to engage historically underrepresented populations in WTD's long-range planning. Throughout this engagement process, WTD is committed to centering the voices of native peoples, communities of color, immigrant and refugee communities, limited English-speaking communities, low-income people and individuals with disabilities. WTD is seeking to advance King County's equity and social justice mission by investing in community partnerships and compensating organizations for implementing engagement and outreach work for the Clean Water Plan. WTD is working with ECOSS, a subconsultant on the Clean Water Plan Regional Engagement Team, to recruit, develop a memorandum of agreement, onboard and support CBOs during engagement. CBOs that partner will participate for a 12-month period and are compensated for their contribution.

### Objectives of partnership

- Deepen or develop positive long-term relationships between King County and CBOs
- King County learns CBO constituencies' needs and interests related to the region's water quality
- Ensure that the Clean Water Plan and its outcomes are informed by community input
- Increase CBOs understanding of WTD's services and trends facing the region's water quality
- Seek to empower community leaders of historically underrepresented communities to design and implement engagement methods that are effective in engaging their respective community members
- Serve as a capacity building resource for CBO partners in the form of trainings, tools, and compensation for participation

### Confirmed organizations

- **Casa Latina:** community organizing around issues impacting domestic workers and day laborers
- **InterIm CDA:** low-income Asian and Pacific Islanders, immigrants, and refugees
- **Living Well Kent:** healthier, equitable, and more sustainable City of Kent
- **Urban League of Metropolitan Seattle:** economic opportunities and education for African American community
- **Young Women Empowered:** mentorship and empowerment programs serving diverse young women, ages 13 to 24, and adult women mentors in the greater Seattle area
- **Na'ah Illahee Fund:** support and promote the leadership of indigenous women and girls in the ongoing regeneration of indigenous communities

## SEPA Process Engagement

On May 20, 2020, WTD, the lead agency for the Clean Water Plan, issued a Determination of Significance and Request for Comments on the Scope of the Programmatic Environmental Impact Statement (EIS). This formally began the State Environmental Policy Act (SEPA) scoping public comment period. “Scoping” refers to the formal public comment period, required under SEPA, which takes place before a Draft EIS is written. A second formal public comment period also occurs after the Draft EIS has been issued. During scoping, interested parties—state and local agencies, Tribes, and the general public—are invited to comment on the information that will be used to develop the Draft EIS. The purpose of the scoping notice is to seek input on what environmental considerations the Draft EIS should analyze.

- **Online Open House:** An [online open house](#) (OOH) launched on May 20 concurrent with the opening of the scoping period. The OOH educates the public on how to participate by providing SEPA comments by email or mail and provides information about the process for developing the Clean Water Plan and issues and actions that will be explored as part of the SEPA process. Participants can ask clarifying questions using an online form in the OOH.
- **Tribal Government Briefing:** On May 13, 2020, the Clean Water Plan team hosted an informational online briefing for Indian tribal governments. The purpose of the briefing was to provide information about the process for developing the Clean Water Plan as well as regional clean water services and programs, and to introduce the key issues and potential actions that will be explored as part of the SEPA process. King County extended invitations to representatives of five tribal governments: Muckleshoot, Puyallup, Snoqualmie, Suquamish, and Tulalip. A representative of each of the five governments except for Muckleshoot attended the briefing.

## Early Consideration for Outreach Fall/Winter 2020

As the Clean Water Plan planning team looks to refine the plan, the regional engagement team has begun to identify potential topics for community engagement and outreach in the Fall and Winter of 2020. The initial list of topics below aim to elevate the public's understanding of the complex planning process and prepare the public for the next significant community input milestone during the Draft EIS process (2021).

- Share with the public how input on community priorities has been incorporated into the evaluation process and share information gathered from the SEPA Scoping comment period
- Share information on how equity is being considered as part of the process and influencing Clean Water Plan outcomes
- Share potential tradeoffs to be explored as part of the strategy evaluation process

The tools and techniques used to engage will be identified based on the needs of key audiences. Currently, no in-person meetings are planned due to COVID-19. However, the County remains committed to sharing information and gathering input from community members in alternative ways.



## Attachment A: Clean Water Plan Milestones & Advisory Group Meeting Topics



## Attachment B: 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

### 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 Elimination and Control Focus
- State/Federal Requirements Source Control Approach

### 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
- Advanced 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
- Far Reaching Legacy Pollution Program
- Accelerated Sediment Management



## Attachment C: Quantitative Evaluation Categories and Related Criteria

Evaluation Category	Evaluation Criteria and Description	Metrics
Water Quality	<p><b>Impact to Ecosystem Health Endpoints:</b></p> <ul style="list-style-type: none"> <li>▪ <b>Orca</b> – expected impact to resident orca populations</li> <li>▪ <b>Chinook Salmon</b> – expected impact to Chinook salmon populations</li> <li>▪ <b>General Aquatic Ecological Health</b> – qualitative description of expected impacts to the health of waterbodies (beyond those described through other endpoints)</li> </ul> <p><b>Impact to Public Health Endpoints:</b></p> <ul style="list-style-type: none"> <li>▪ <b>Recreation</b> – expected impact to beach closures</li> <li>▪ <b>Edible Fish and Shellfish</b> – expected impact to safety of fish and shellfish consumption in King County waterbodies</li> </ul> <p><b>Equity</b> – Narrative description of water quality-related equity benefits and burdens – now and in the future.</p>	<p><b>Pollutant Reductions:</b></p> <ul style="list-style-type: none"> <li>○ Nitrogen</li> <li>○ Phosphorus</li> <li>○ Copper</li> <li>○ Zinc</li> <li>○ Suspended solids</li> <li>○ PCBs</li> <li>○ PBDEs</li> <li>○ PAHs</li> <li>○ Fecal coliform</li> </ul> <p><b>Receiving Waters:</b></p> <ul style="list-style-type: none"> <li>○ Puget Sound</li> <li>○ Elliott Bay</li> <li>○ Duwamish Waterway</li> <li>○ Lake Union/Ship Canal</li> <li>○ Lake Washington</li> <li>○ Lake Sammamish</li> <li>○ Rivers, small lakes, streams/tributaries</li> </ul>
Cost	<p><b>Lifecycle Cost</b> Net present value of the costs and revenues associated with the action over the planning period (through 2060)</p> <p><b>Equity</b> – Affordability and other related equity considerations to be addressed at the strategy evaluation step.</p>	<ul style="list-style-type: none"> <li>○ Capital cost</li> <li>○ Operational costs</li> <li>○ Maintenance costs</li> <li>○ Replacement costs</li> <li>○ Administrative costs</li> <li>○ Revenues</li> </ul>

## Attachment D: Narrative Evaluation Categories and Related Criteria

Evaluation Category	The evaluation of each action will include a description of the action's performance relative to the following criteria:
<b>Management and Operations</b>	Reliability and Resiliency: impacts to system reliability (performance and failures, including public exposure to wastewater), adaptability, and resilience to acute (e.g., earthquake) and chronic (e.g., climate change) hazards.
	Regulatory Compliance: potential changes in the number or likelihood of lawsuits, claims, permit violations, fines, and/or loss of permit.
	Community Confidence: potential impacts on media coverage, public perception (loss or improvement in public confidence), and/or stakeholder participation/cooperation.
	<b>Equity:</b> Equity benefits and burdens relative to management and operations - now and in the future.
<b>Community</b>	Construction: potential community disruptions (e.g., noise, traffic, limited access) during action implementation
	Economic: potential impacts to land use, the ability to support growth and development
	Livability: potential impacts to quality of life through community amenities (e.g., access to green space) or permanent facilities (e.g., odors, aesthetics, noise).
	<b>Equity:</b> Equity benefits and burdens relative to community – now and in the future.
<b>Sustainability</b>	Direct Energy Use/Generation: overall energy profile from direct uses/sources, including both energy consumption and energy generation
	Carbon Footprint: overall carbon profile from direct energy use, direct greenhouse gas emissions, and carbon offset.
	Resource Consumption/Recovery: non-renewable and renewable resource consumption (other than energy) and renewable resources recovered.
	Ecosystem Services: magnitude and multitude of impacts such as habitat restoration and soil tilth recovery.
	<b>Equity:</b> Equity benefits and burdens relative to sustainability – now and in the future.

## Attachment E: Connection of Community Priorities and Evaluation Categories

Key Priorities	Evaluation Categories				
	Water Quality	Cost	Management & Operations	Community	Sustainability
– Avoid sewer system failures			●		
– Ensure benefits and impacts are experienced equitably	●	●	●	●	●
– Increase collaboration between agencies	●			●	
– Keep rates affordable within the context of a growing region		●			
– Prepare for and fight climate change	●		●		●
– Protect and restore our rivers, lakes, and Puget Sound	●				●
– Protect public health	●		●		
– Support healthy habitats for fish and wildlife	●				●
– Communicate with the public about the plan	●	●	●	●	●
– Prioritize the best water quality investments	●	●	●	●	●
– Maintain an effective wastewater treatment workforce	●	●	●	●	●

Indicates evaluation categories with specific affinity to priority



Indicates programmatic priorities addressed across all categories



## Attachment F: Initial Thinking on Assumptions and Resources

Assumption Category	Resources Include	Expected Use Includes
<b>Population and employment growth</b>	<ul style="list-style-type: none"> <li>▪ Puget Sound Regional Council Growth Projections</li> </ul>	<ul style="list-style-type: none"> <li>▪ Future wastewater flows and loadings from population and employment growth</li> <li>▪ Future land use and development patterns</li> </ul>
<b>Demographics</b>	<ul style="list-style-type: none"> <li>▪ Office of Financial Management</li> </ul>	<ul style="list-style-type: none"> <li>▪ Affordability analysis</li> <li>▪ Equity analysis</li> </ul>
<b>Receiving water quality and aquatic habitat</b>	<ul style="list-style-type: none"> <li>▪ Surface water quality monitoring data and impaired water listings (Ecology and others)</li> <li>▪ 2016 State of Our Watershed (Northwest Indian Fisheries Commission)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Future conditions in regional water bodies</li> <li>▪ Future habitat quality and quantity</li> </ul>
<b>Wastewater flows and loadings</b>	<ul style="list-style-type: none"> <li>▪ King County Wastewater Treatment Division modeling flow forecasting assumptions</li> </ul>	<ul style="list-style-type: none"> <li>▪ Future wastewater flows and loadings from population and employment growth</li> </ul>
<b>Stormwater flows and loadings</b>	<ul style="list-style-type: none"> <li>▪ Regional rainfall forecasting assumptions</li> <li>▪ Regional water quality monitoring data (Ecology, King County, others)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Future stormwater runoff estimates and pollutant loads</li> </ul>
<b>Climate change</b>	<ul style="list-style-type: none"> <li>▪ University of Washington Climate Impacts Group</li> <li>▪ NOAA Sea Level Rise Model</li> <li>▪ Washington Coastal Resiliency Project</li> </ul>	<ul style="list-style-type: none"> <li>▪ Future rainfall and stormwater runoff estimates</li> <li>▪ Sea level rise timing and extent</li> </ul>
<b>Water quality regulations</b>	<ul style="list-style-type: none"> <li>▪ Washington State and Federal Clean Water Laws</li> <li>▪ Current rules, Washington Administrative Code, etc.</li> <li>▪ Puget Sound Nutrient Source Reduction Project</li> </ul>	<ul style="list-style-type: none"> <li>▪ Future regulatory conditions</li> </ul>