

# Clean Water Plan

*Making the Right Investments at the Right Time*

Mobility and Environment Committee

March 24, 2021

Presenters:

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**Clean Water Plan**

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**King County**

Department of Natural Resources and Parks  
Wastewater Treatment Division

# Why the Clean Water Plan?



Threats to regional water quality



Capacity needs due to growing population



Aging infrastructure



Current and expected regulations (CSO, nitrogen)



Utility rate affordability

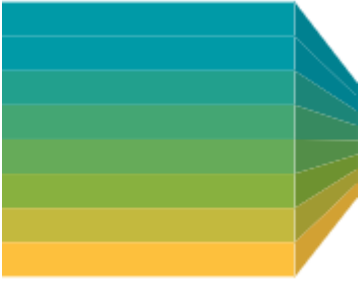


Resiliency (climate change, natural hazards)

**Core Planning Question:** *What is the most appropriate path to ensure we direct the right public investments to the right actions at the right time for the best water quality outcomes?*

# Clean Water Plan Planning Process Overview





# Exploring a Range of Actions Within Each Decision Area

## Wastewater Treatment

*What treatment plant and wet weather facility investments should be made?*

## Pollution Source Control and Product Stewardship

*Are there more efficient or effective methods to address pollutants of concern than wastewater treatment?*

## Wet Weather Management

*What approach should be taken to address stormwater and combined sewer overflows in King County's system?*

## Wastewater Conveyance

*What are the best investments in collections systems to ensure sufficient capacity and improve system condition?*

## Asset Management, Resiliency, and Redundancy

*What investments should be made to care for an aging regional wastewater system and protect the investments that have been made?*

## Legacy Pollution

*What are the opportunities to address legacy pollution?*

## Resource Recovery

*How should King County recover resources in wastewater?*

## Finance

*How will regional water quality investments be financed?*

# Actions are Building Blocks for Strategies



**A specific program or set of projects that addresses one of the Decision Areas.**

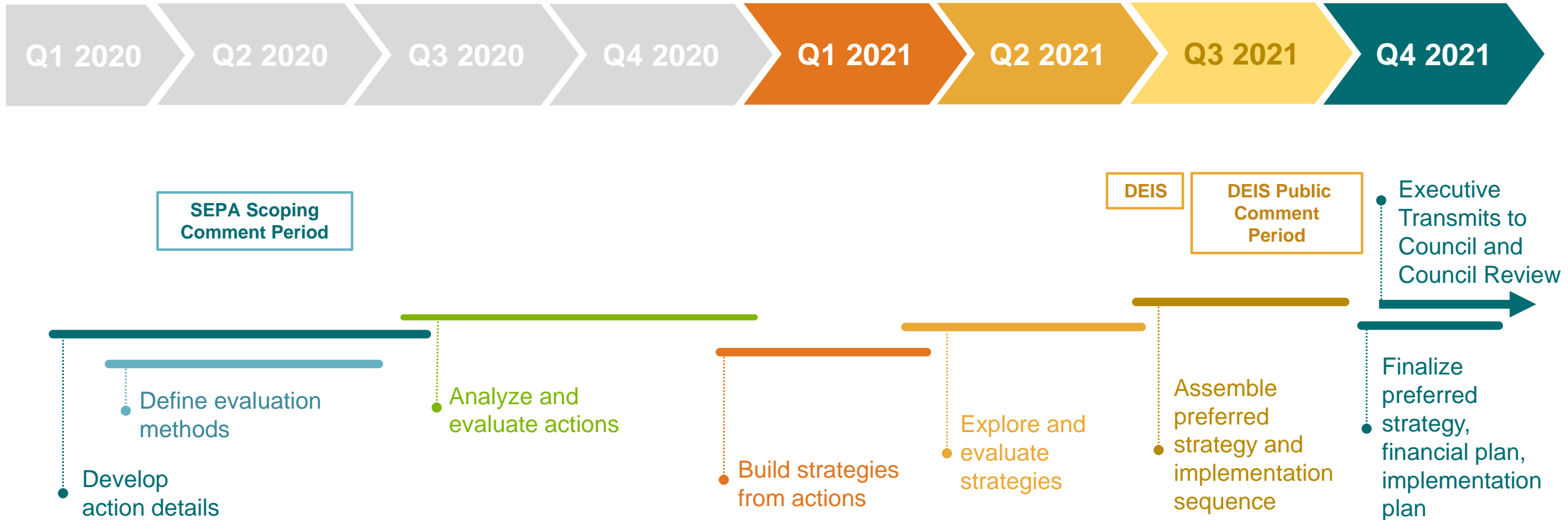
Actions are not standalone solutions but building blocks that will be shaped and combined in different ways to form Strategies.



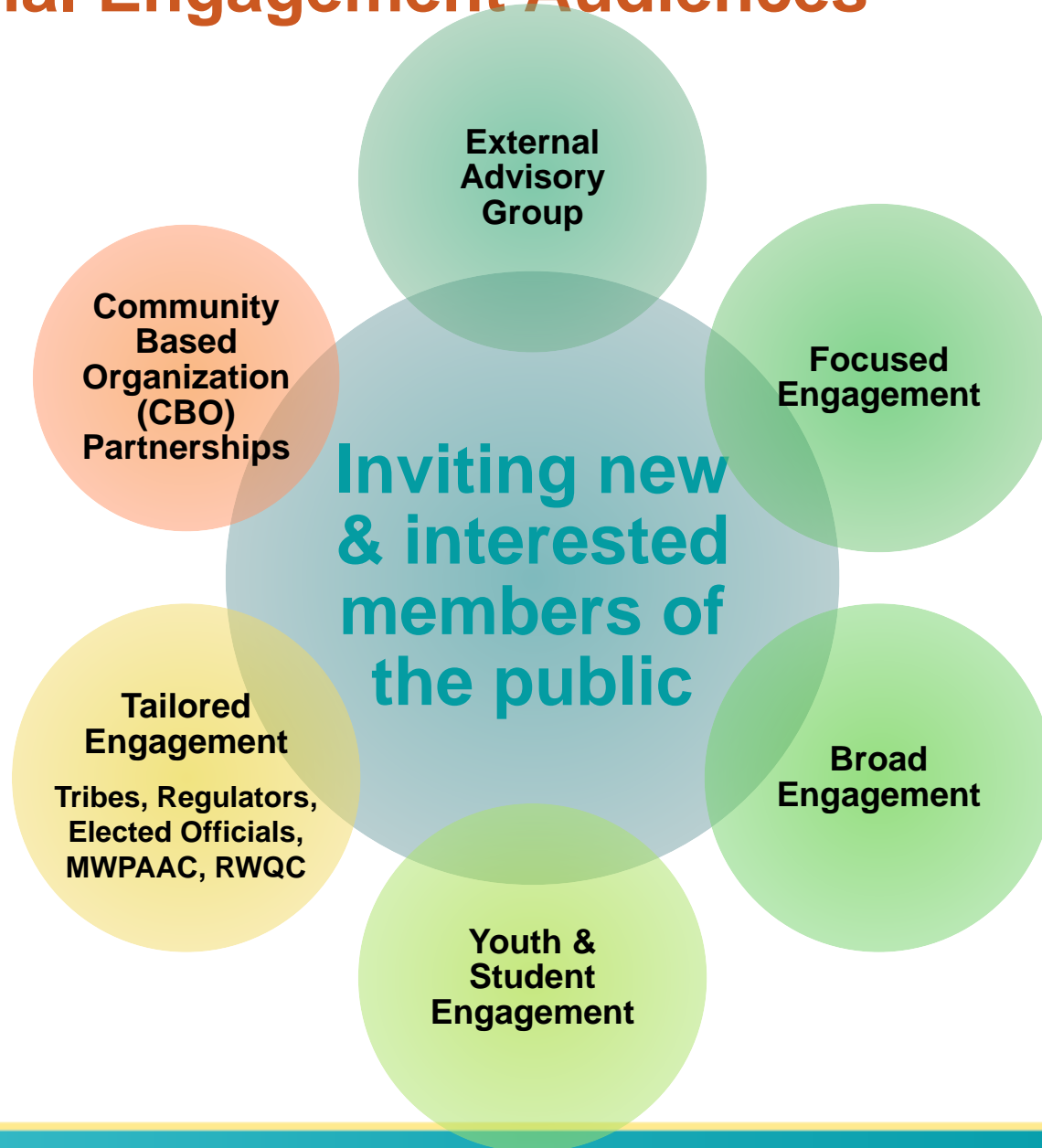
**A group of multiple Actions.**

Each strategy reflects a complete water quality investment approach the County could take for water quality and the regional wastewater system.

# Planning Process – Timeline and Steps Overview



# Regional Engagement Audiences



## County & Community Priorities



Avoid sewer system failures




Prepare and fight climate change



Equity




Increase collaboration



Prioritize best water quality outcomes



Healthy habitats for fish and wildlife



Keep rates affordable



Maintain effective wastewater workforce



Protect and restore rivers, lakes, and Puget Sound



Protect public health

# Clean Water Plan Engagement: Community Input

## Community Questionnaire

Questionnaire will collect feedback on how community wishes to engage with us in 2021 and how we can improve our engagement practices

## Community Conversations

Interviews with key community groups and youth & student organizations to understand the level of interest in the Clean Water Plan among a varied group of individuals and organizations

## Topic Sheets

Plain language and graphic-heavy document to increase understanding of a specific topic area related to the Clean Water Plan

- Process
- Actions

## Engagement on Actions

Opportunities to virtually engage with project team on Clean Water Plan topic areas

**Creating the Clean Water Plan:**  
An Exploratory Process

The wastewater system is vital to our community because it collects and cleans the water that people send down the drain, and protects public health and our rivers, lakes, and Puget Sound.

King County has tough decisions to make about the future of our regional wastewater system. We have a long and growing to-do list that could cost billions of dollars in the coming decades. In making these investments, we need to consider things like our aging system of pipes, pumps and tanks, population growth, regulations, equity, and climate change.

King County takes these decisions seriously, and is working on a Clean Water Plan to guide our investments. The process of making the plan will allow us to do a thoughtful and transparent evaluation, so we make the right investments at the right time.

**An Exploratory Process**

The Clean Water Plan is working on interrelated, complex problems. We are looking at new and different approaches to a whole range of decisions together, including the ones down the road. To find the best solutions, we need to explore as we go.

**The Clean Water Plan will:**

- Guide King County investments that protect our local waterways, the environment, and public health for decades to come
- Consider how to distribute the benefits and burdens of these investments equitably
- Determine how to use money from your sewer bills for the best water quality outcomes

**CLEAN WATER PLAN DECISION AREAS**

- Wastewater treatment plants capacity and level of treatment
- Capacity in sewer pipes and pumps
- Aging sewer systems, natural disasters and climate change
- Recycling resources from wastewater
- Stormwater and combined sewer overflows
- Preventing pollution at the source
- Pollution from historical activities

**STRATEGY FOR THE FUTURE**

Water Quality, Cost/Finances, Equity/Community, Sustainability, Sewer System Health

King County  
Department of Natural Resources and Parks  
Wastewater Treatment Division

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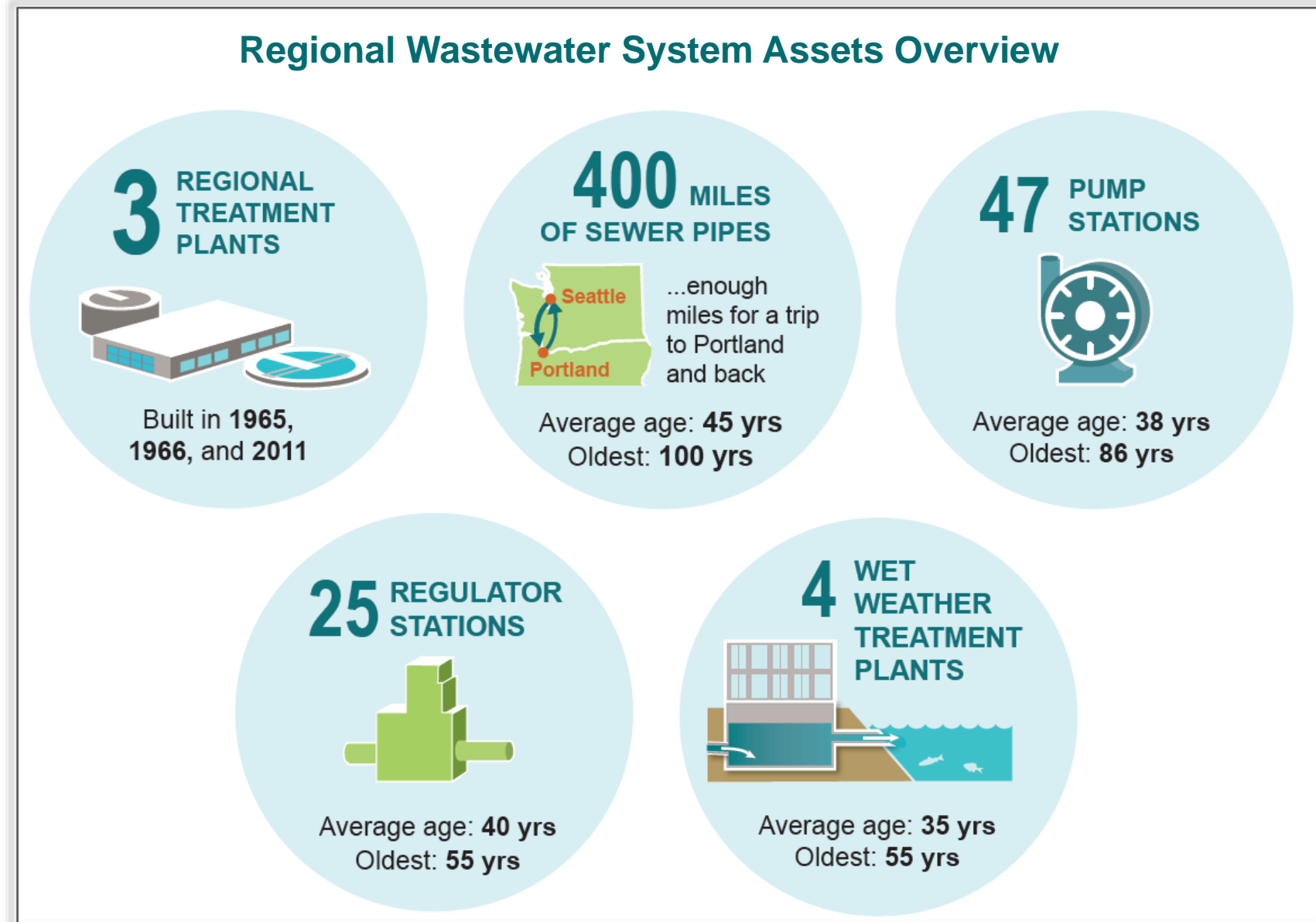
# Expected Policy Discussions in the Planning Process

## Existing Policies: Metropolitan Functions – King County Code 28.86

- **Wastewater Treatment**
  - Treatment plant policies (TPP)
  - Conveyance policies (CP)
  - Infiltration and Inflow policies (I/IP)
  - Combined sewer overflow control policies (CSOCP)
  - Biosolids policies (BP)
  - Water reuse policies (WRP)
  - Wastewater services policies (WWSP)
  - Water quality protection policies (WQPP)
  - Wastewater planning policies (WWPP)
  - Environmental mitigation policies (EMP)
  - Public involvement policies (PIP)
  - Financial policies (FP)
  - Reporting policies

# Some Potential Policy Considerations

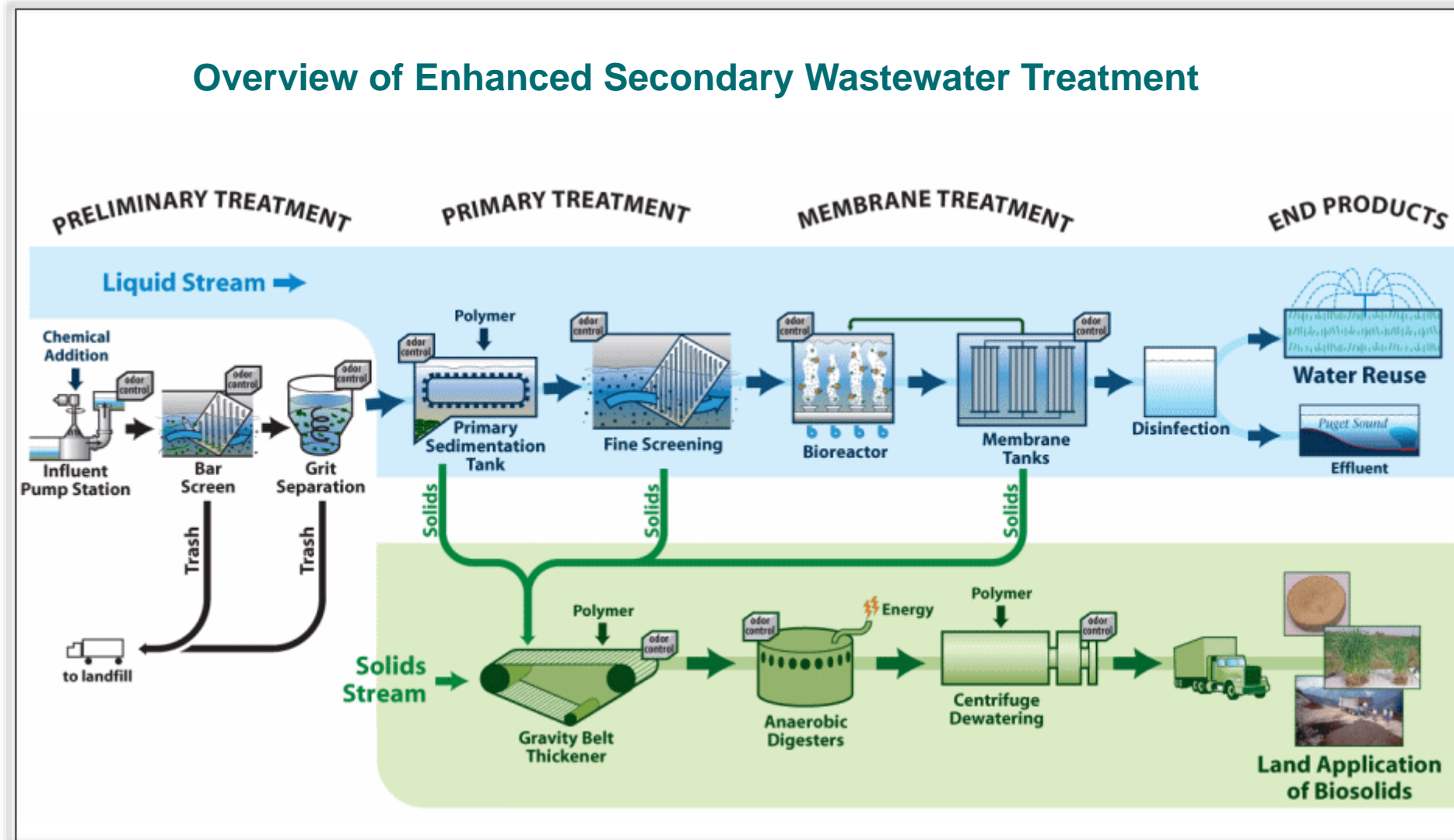
- **Asset Management (repair/replacement of equipment), Resiliency, and Redundancy**
  - ▶ **Current policy example – Directs establishment of an Asset Management Program**
  - ▶ **Potential considerations include – Guidance on acceptable level of service and risk of failure and resulting consequences (e.g., sewage overflow), and acceptable balance between planned and emergency spending**



# Some Potential Policy Considerations

- Wastewater Treatment Plants

- ▶ Current policy example – Directs that secondary treatment will be provided to all base sanitary flows
- ▶ Potential considerations include – Guidance on implementation of improvements to or additional construction of regional treatment plants for capacity to accommodate population growth or increased levels of treatment

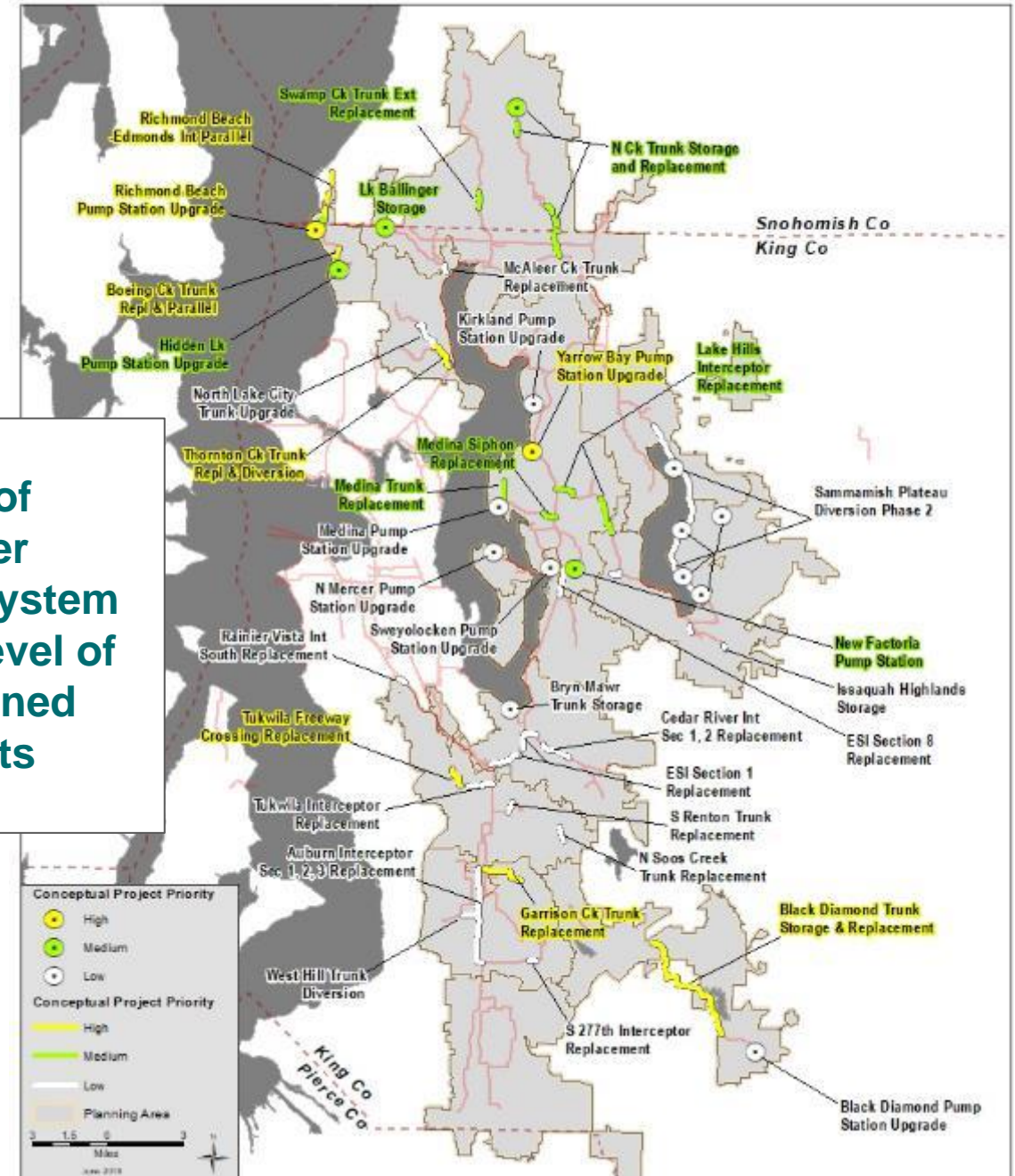


# Some Potential Policy Considerations

- **Wastewater Conveyance**

- ▶ Current policy example – Design and construction of separated sewer system to twenty-year peak flow (5% chance overflow any given year)
- ▶ Potential considerations include – Reaffirm or update design standard

**Overview of Wastewater Conveyance System and 20-year Level of Service Planned Investments**



# Information to be Developed to Inform Policy Conversations

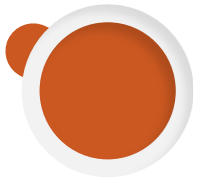


## Water Quality\*

Pollutant Removals

Waterbody Impacts (+/-)

Endpoint (e.g., salmon) impacts (+/-)



## Management and Operations\*

Regulatory implications

Infrastructure renewal rates

System resiliency and redundancy

Funding (rate and borrowing) projections



## Sustainability\*

Energy use

Greenhouse gas emissions



## Cost/Financial\*

Capital costs

O/M costs

Funding (rate and borrowing) projections

Low-income affordability metrics



## Community\*

Economic impacts (+/-)

Facility host community impacts (+/-)

Cultural uses impacts (+/-)



**\*Apply Equity and Social Justice - Equity Determinants**

# Regional Elected Officials Workshops

- More detailed overview of the Clean Water Plan in development and opportunity for input from King County Council members, Regional Water Quality Committee Members, and elected officials from local sewer utilities (cities and districts)
- Five workshops in 2021
- First workshop scheduled for March 31st, 3:00 – 5:00 p.m.
- Workshops also anticipated in May, June, September, and October of 2021



# Upcoming Mobility and Environment Discussions

- Actions, overview of Decision Area water quality investment program options
- Summary of regional engagement input received, including SEPA scoping
- Strategies, overview of complete water quality investment approaches King County could take for water quality and the regional wastewater system

# Thank you!

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