

King County's Wastewater Today

Wastewater Treatment: Realities & Reinvestment



March 25, 2020

Clean Water Plan

Making the right investments at the right time



King County

Department of Natural Resources and Parks
Wastewater Treatment Division

How to participate in the webinar

All attendees are muted. To adjust your audio settings in the webinar, click on **Audio Settings**.

Please use the **Q&A window** to ask questions or offer comments.



Send a **chat** to the host if you have a technical issue.

Land Acknowledgement



Welcome!

- Sonia-Lynn Abenojar, Capital Project Manager
- Kelly Foley Kruse, Community Services
- And YOU!



Q&A: Tell us about you!

We want to know, are you:

- tribal representative
- a water professional
- an environmental advocate
- a government employee
- a student
- interested community member
- or someone else?



Water quality is improving, and we have more to do



Our region is changing



So we need to make a plan

The Clean Water Plan will

- Guide decisions about our wastewater system and how to protect our local waterways and health.
- Identify policies, programs, and projects that reflect community priorities.
- Provide a path for investments in the near future and in the long-term (over the next 40 years).



Purpose of this webinar

We hope that you will:

- Learn about our current wastewater system
- Understand factors we need to consider when making decisions
- Continue the conversation on what challenges and solutions matter most



We clean water to protect rivers, lakes, and Puget Sound

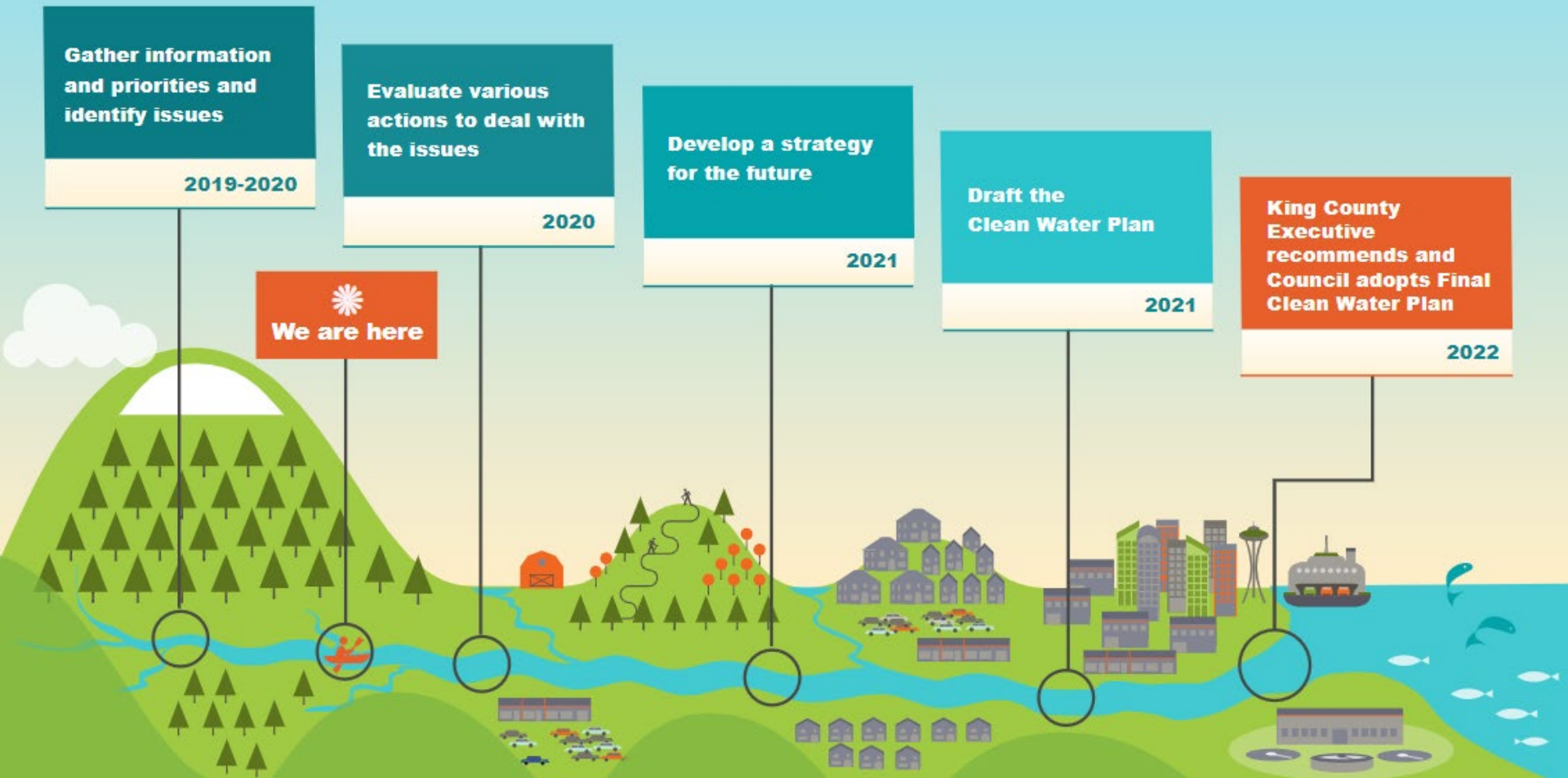
- **400** miles of pipe
- **700** employees
- **34** local sewer utilities
- **Serving 1.8 million** people each day



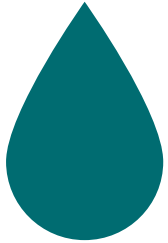
We don't do this alone



Project timeline



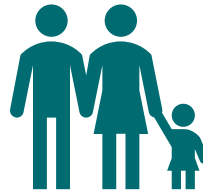
We heard you



**Avoid sewer
system failures**



**Prepare and
fight climate
change**



Equity



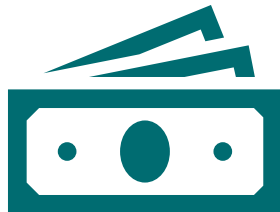
**Increase
collaboration**



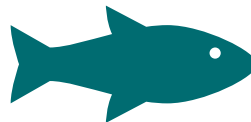
**Prioritize best
water quality
outcomes**



**Maintain effective
wastewater
workforce**



**Keep rates
affordable**



**Healthy habitats
for fish and wildlife**



**Protect and restore
rivers, lakes, and
Puget Sound**



**Protect public
health**

The Challenge



Clean Water Plan issues

WASTEWATER SYSTEM ISSUES

- 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

WET WEATHER ISSUES

- Stormwater and combined sewer overflows

POLLUTION REDUCTION ISSUES

- Preventing pollution at the source
- Pollution from historical activities

FINANCIAL ISSUES

- Paying for clean water investments

**STRATEGY FOR
THE FUTURE**

Issue #1: Aging sewer systems

3 REGIONAL
TREATMENT
PLANTS



Built in **1965**,
1966, and **2011**

400 MILES
OF SEWER PIPES



...enough
miles for a trip
to Portland
and back

Average age: **45 yrs**
Oldest: **100 yrs**

47 PUMP
STATIONS



Average age: **38 yrs**
Oldest: **86 yrs**

25 REGULATOR
STATIONS



Average age: **40 yrs**
Oldest: **55 yrs**

4 WET
WEATHER
TREATMENT
PLANTS

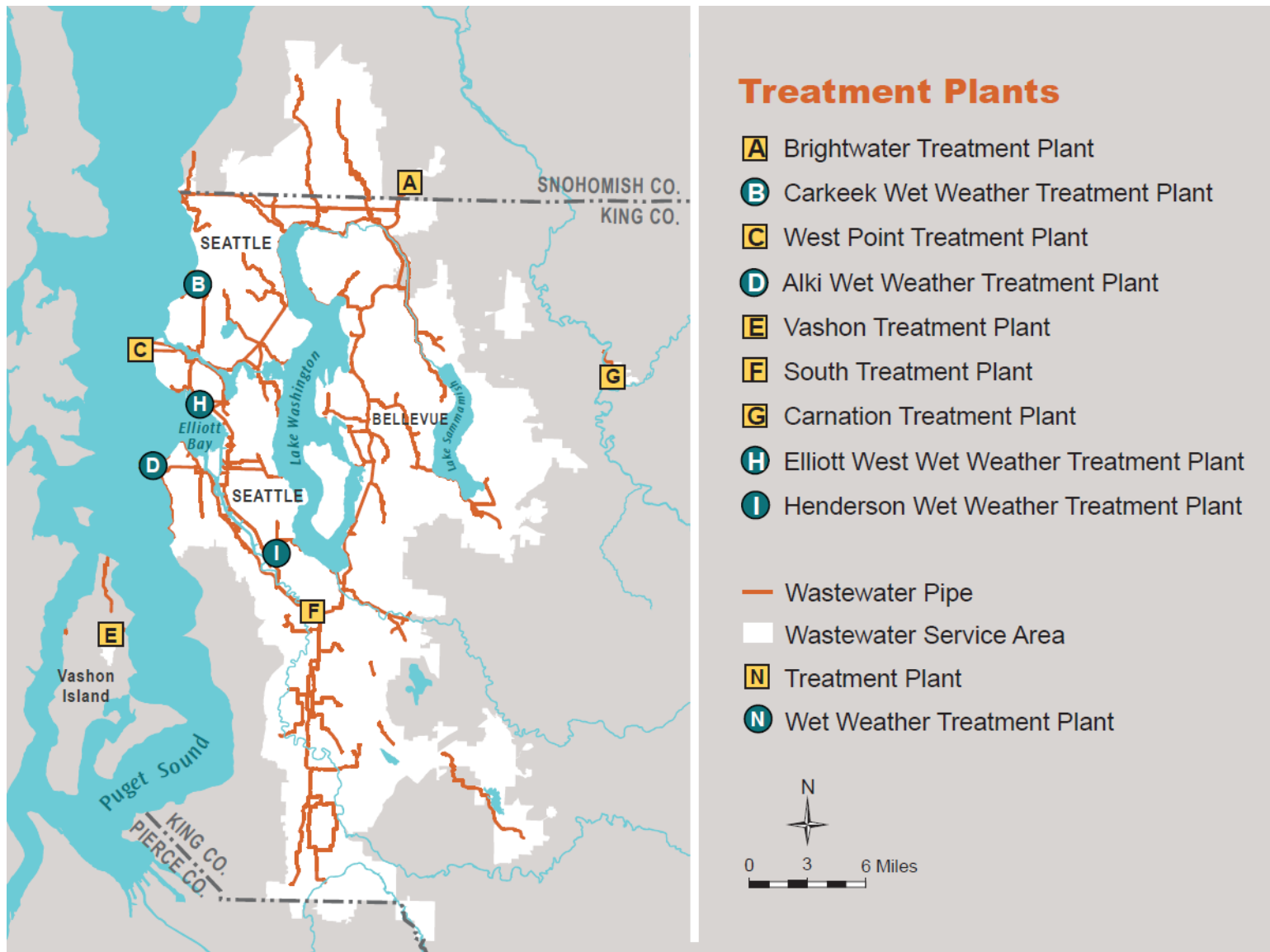


Average age: **35 yrs**
Oldest: **55 yrs**

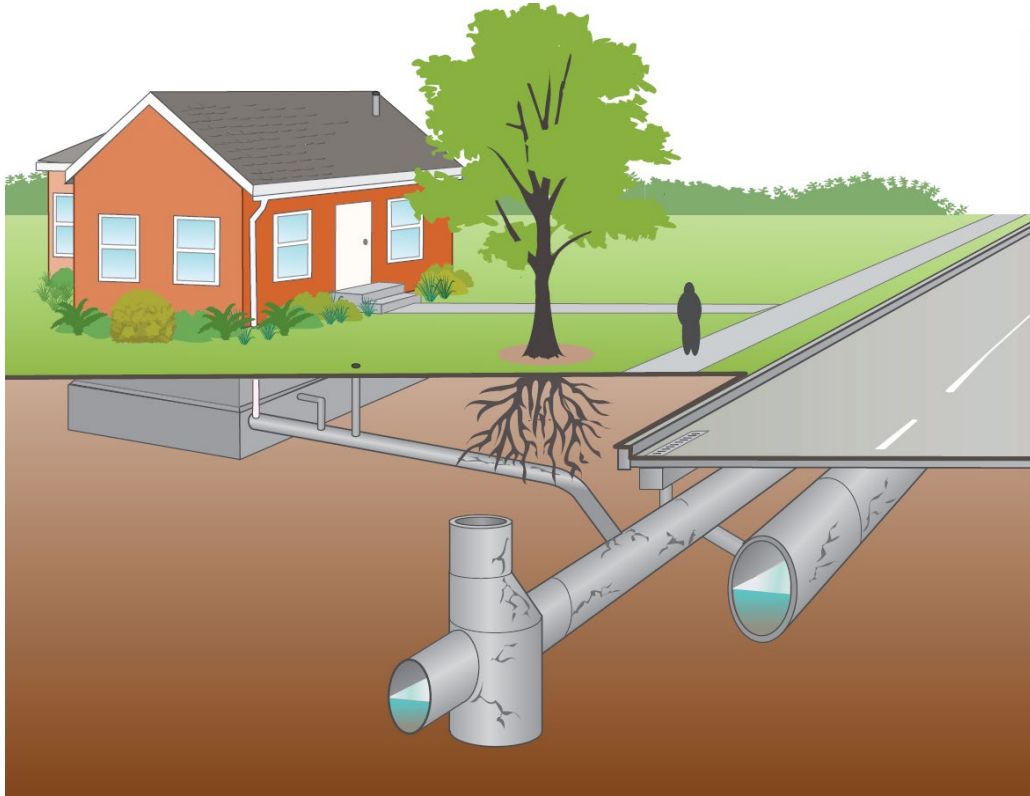
Issue #1: Aging sewer systems



Issue #2: Capacity in sewer pipes and pumps



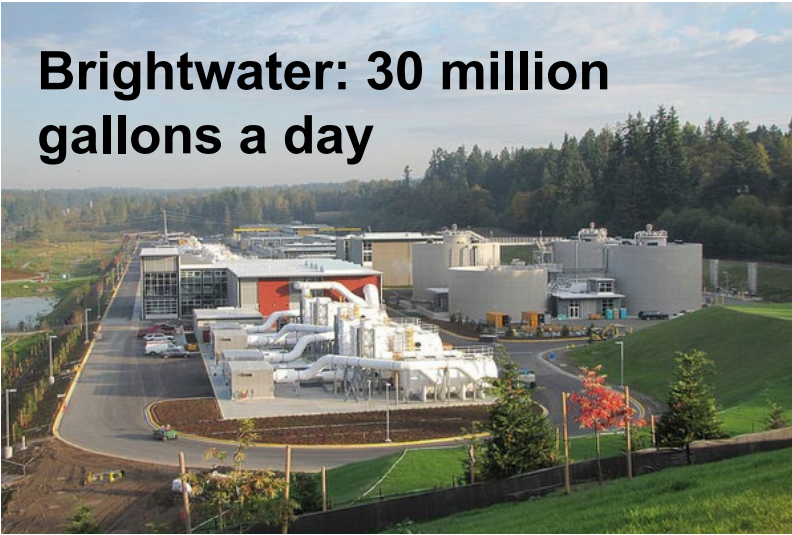
Issue #2: Capacity in sewer pipes and pumps



A segment of excavated side sewer completely blocked by roots

Issue #3: Upgrades to wastewater treatment plants

**Brightwater: 30 million
gallons a day**



**West Point: 133 million
gallons a day**



**South Plant: 115 million
gallons a day**



**Vashon: 260,000
gallons a day**



**Carnation: 220,000
gallons a day**

Issue #3: Upgrades to wastewater treatment plants



Issue #4: Recycling resources from wastewater

Organic biosolids we remove from wastewater, called Loop®.

- Farmers use Loop® on crops
- Using Loop® stores carbon



Issue #4: Recycling resources from wastewater

- Recycled water used for irrigation and industry
- Renewable energy production



Weighing the tradeoffs

WASTEWATER SYSTEM ISSUES

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WET WEATHER ISSUES

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POLLUTION REDUCTION ISSUES

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FINANCIAL ISSUES

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**STRATEGY FOR
THE FUTURE**

It's our legacy



Keep the conversation going

Ways to stay involved:

- Join our list for email or text updates
- Attend a future community event or join an upcoming webinar
- Participate in the SEPA comment period later this year
- Read more online
- Let us know the best way to reach you



Q&A

- We want to hear from you.
- What questions do you have about the Clean Water Plan?
- What would you like to know more about regarding wastewater system issues?



Questions or feedback?

Web: www.kingcounty.gov/cleanwaterplan

Email: CleanWaterPlan@kingcounty.gov

Phone: 206-263-8068



Alternative formats available 206-477-5371 TTY relay: 711