



King County

Protecting Our Waters

Doing our part on rainy days

Combined Sewer Overflow Consent Decree Modification

Presented to the
Metropolitan Water Pollution Abatement Advisory Committee
Joint Subcommittee Meeting

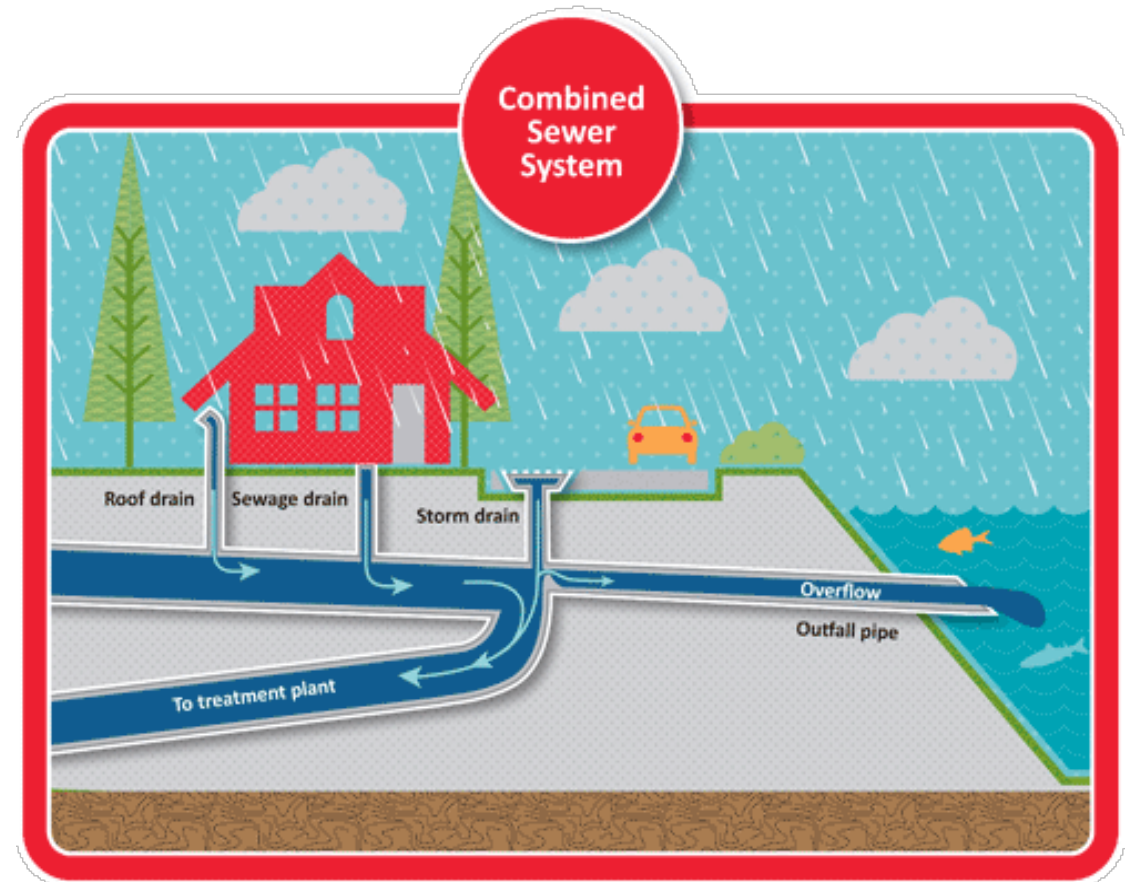
August 1, 2024



What are Combined Sewer Overflows?

CSOs are relief points in older sewer systems that carry sewage and stormwater in the same pipe.

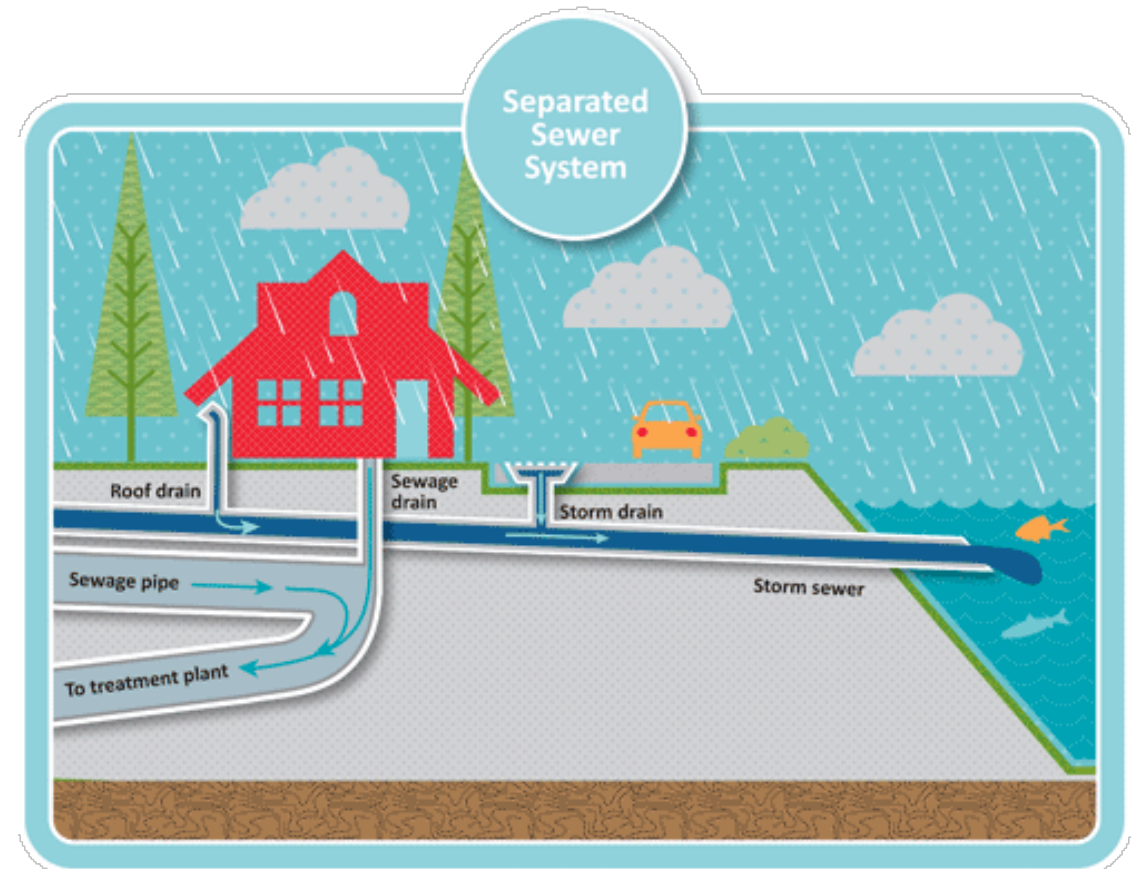
When heavy rains fill the pipes, CSOs protect homes and businesses by overflowing excess sewage and stormwater into local water bodies.





Separated sewer system

Separated sewer systems have separate pipes for sewage and stormwater.





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Why is CSO Control important?

- CSOs are a recognized source of water pollution and public health concerns.
- CSOs are regulated under the Federal Clean Water Act.
- Washington State requires the “greatest reasonable reduction of combined sewer overflows at the earliest possible date.” (RCW90.48.480).
- Outfalls must be controlled so that no more than one untreated discharge occurs per year on average. (WAC 173-245-20)

WARNING:
Rains can cause pipe overflows and temporary pollution in this area.

To find out if you should use the water here today:

ADVERTENCIA:
las lluvias pueden causar desbordes en las tuberías y contaminación temporal en esta área.
Investigue las condiciones actuales de la calidad del agua para esta área: (Spanish)

경고:
비가 내리면 이 구역에 배관 범람 및 일시적 오염이 발생할 수 있습니다.
이 구역의 현재 수질 상태를 파악하십시오: (Korean)

CẢNH BÁO:
mưa có thể gây sự cố tràn ống và ô nhiễm tạm thời trong khu vực này.
Tìm xem thông tin về tình trạng chất lượng nước hiện tại cho khu vực này: (Vietnamese)

警告:
下雨可能會使水管溢流並且造成這個地區暫時被污染。
請查看本地區目前的水質情況: (Chinese)

206-386-1800 or TTY: 711
www.kingcounty.gov/CSOstatus

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CSO #: 007

King County City of Seattle




King County and Seattle each manage their own CSO systems

- King County has 38 CSO outfalls.
- Seattle has 82 CSO outfalls.
- King County and Seattle are obligated to control their CSOs to meet the state standard of one untreated discharge per year on average.



Progress to date

12 CSO projects in the consent decree

-  7 completed
-  3 in progress, plus Elliott West upgrade
-  2 upcoming projects

Completed CSO Projects

1. North Beach CSO Control Project
2. Ballard Siphon CSO Control Project
3. South Magnolia CSO Control Project
4. Murray CSO Control Project
5. Barton CSO Control Project
6. Rainier Valley Wet Weather Storage Facility
7. Georgetown Wet Weather Treatment Station



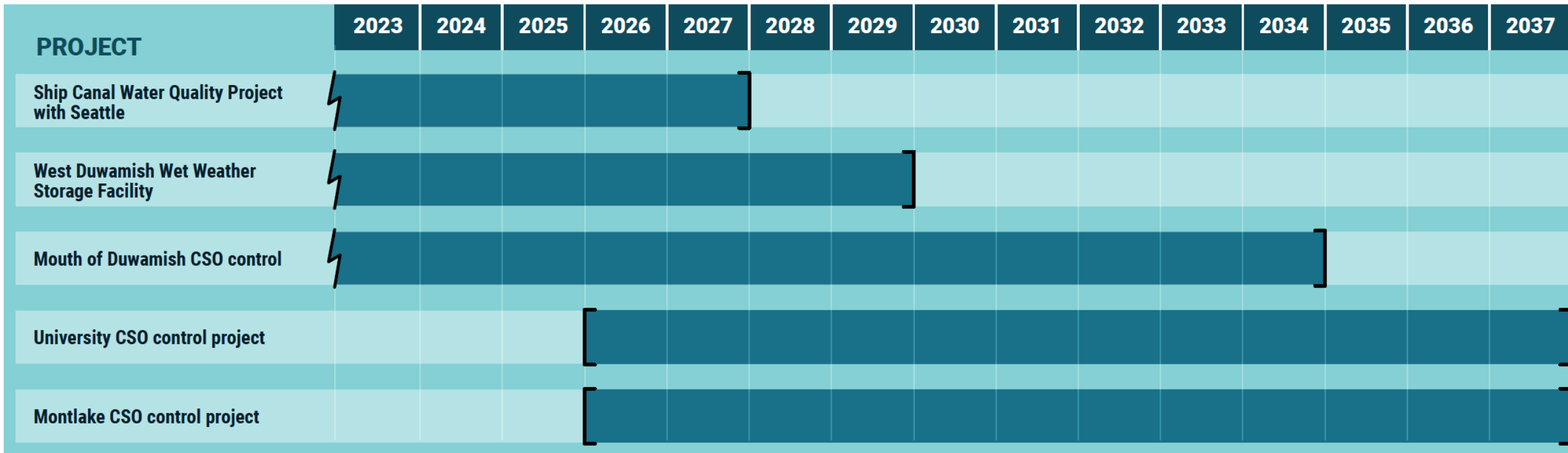
Rationale for CD modification

- Original CD signed in 2013 with 2030 end date. Two projects are completed, five others are addressed in the CD modification.
- In 2019, the County initiated negotiations to modify the CD because conditions had changed, and the remaining CSO projects were no longer deemed sufficient to meet regulatory needs.
- The revised projects and timeline in the modified CD will allow us to meet legal obligations and provide water quality benefits to our region for decades to come.

Benefits of CD Changes

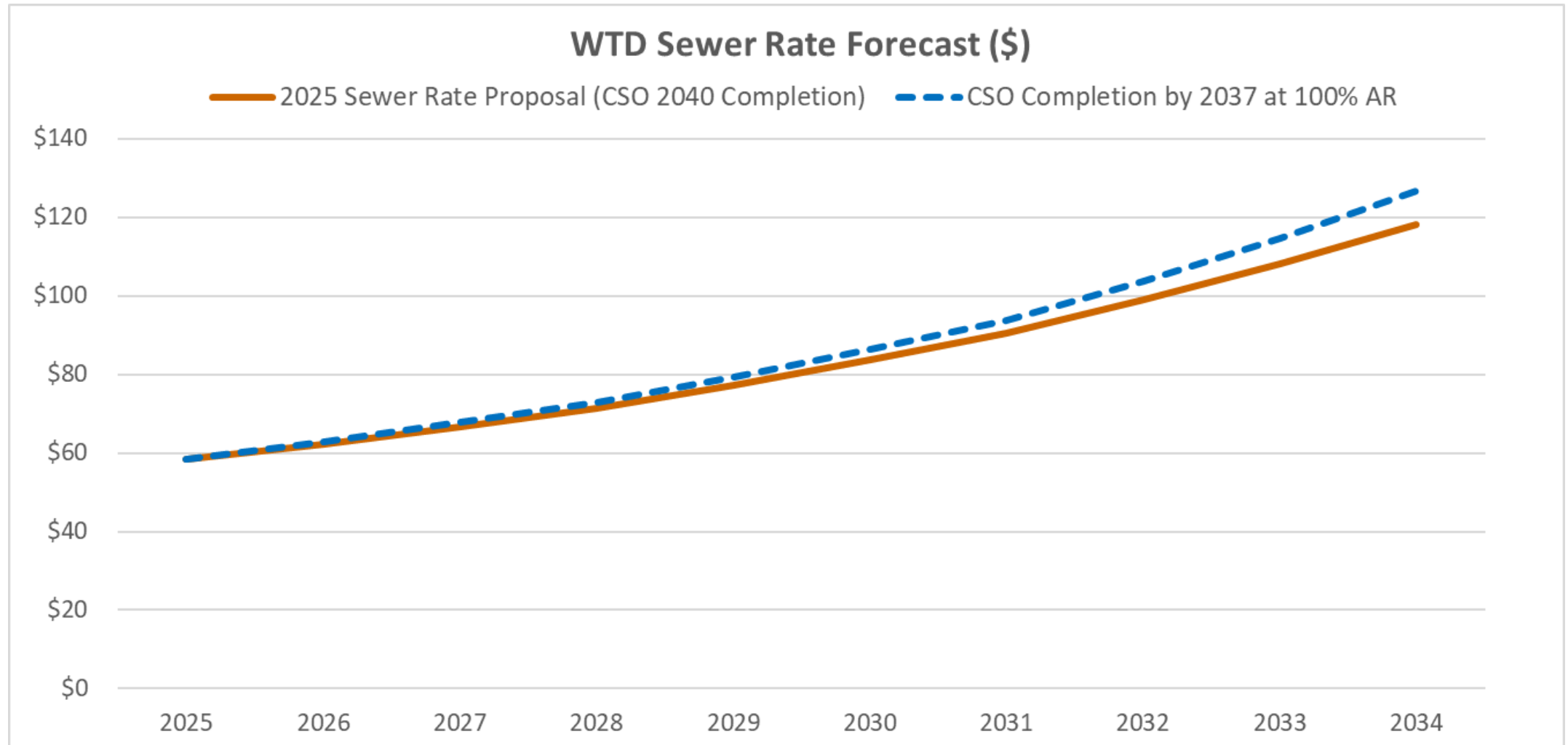
- **More time** – extended end date from 2030 to 2037 is needed to build larger projects and will help with affordability.
- **Updated projects** – larger sizes and more control measure options to ensure we reliably achieve needed control status.
- **Re-sequenced remaining projects** - Mouth of Duwamish before University and Montlake.
- **Clarified flexibility** to adjust project size to address climate change and handle larger, more frequent storms.
- **Closer coordination with Seattle** to optimize our systems and how they work together to protect water quality.
- **Improved monitoring** and reporting practices.

Modified CD Delivery Schedule



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Sewer rate forecast of 2040 completion vs. 2037 completion at 100% accomplishment rate



CLIMATE CHANGE IS IMPACTING OUR WASTEWATER SYSTEM



Heavy rainstorms can overload our wastewater system, leading to overflows into local waterways.

CSO OUTFALL

Sea level rise causes saltwater to infiltrate and corrode wastewater pipes.

Heat waves affect employees and the bacteria that process wastewater.

TREATMENT PLANT

Higher tides and river flooding can cause sewer backups in some communities and inundate our low-lying infrastructure.

Extreme weather disrupts power sources and causes equipment to falter.

Smoke from wildfires can be dangerous for workers.

RECYCLED WATER

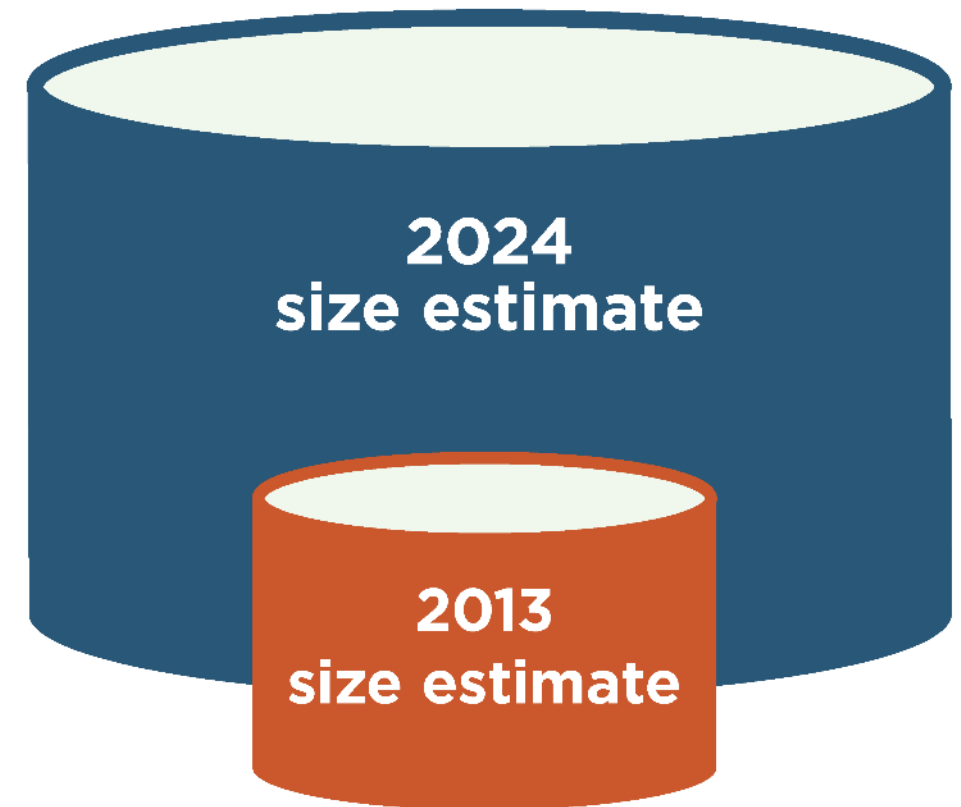
TREATED WATER

Climate Resilience

- Climate change is impacting how we design and build wastewater infrastructure.
- By the 2080s, the region's severe rainstorms are expected to bring 22% heavier rainfall flow to our system.
- We are adapting to climate impacts by building larger, more resilient projects that protect us against larger, more frequent storms.
- Ensures compliance with federal and state regulations and meets our goals for improving water quality.

ADAPTING OUR PROJECTS FOR CLIMATE CHANGE

Wet weather storage tanks need to be larger than previously estimated to withstand the storms of the present and future.



Opportunity for Green Solutions

- WTD has incorporated Green Stormwater Infrastructure (GSI) into dozens of capital projects to date.
- Larger volumes are challenging for control with distributed GSI alone.
- "Green for gray" substitutions can still be explored for remaining projects.
- GSI is a promising strategy to supplement the performance of gray infrastructure and maintain control in the face of climate change.



Modification Approval Process Tentative Schedule

- **June 2024:** Transmittal to Council
- **July 2024:** Council review and approval
- **Q3/Q4 2024:** DOJ transmittal to federal court once King County and Seattle have authorized modifications
- **Q1/Q2 2025:** Court approval, modification complete

Communications & Outreach

- Key messages:
 - **Commitment to water quality:** These changes improve our CSO control program so that we can make the best investments in water quality for the Puget Sound region for decades to come.
 - **Climate resilience:** We will build better projects that protect us against larger, more frequent storms.
 - **Equitable approach:** We will prioritize communities in the Duwamish where equity is needed.
 - **Better affordability:** We will be better able to manage the cost burdens on ratepayers.
- WTD, Seattle, and regulators coordinating on communications plans for external parties (media and stakeholders).
- King County and Seattle coordinating on respective legislative processes.



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Questions