

Challenges and Opportunities

Informing the Vision for Clean Water

RWQC

March 5, 2025



Purpose of identifying Challenges and Opportunities

- Establish a compelling rationale for why we need a 75-year Vision
- Call to action: Challenges must be addressed to avoid significant negative impacts to the region





Context

- Topics drawn from multiple streams of engagement and input
- Challenges and Opportunities are helping inform development of draft Vision themes
- Will not replace more detailed Existing Conditions report for the RWSP



Sources of input

- Water leader interviews
- Listening sessions
- Review of Clean Water Plan feedback
- Existing Conditions Report
- RWSP Working Group

11 Challenges and Opportunities



Aging infrastructure



Changing regulations



Climate change



Community engagement



Customer affordability of wastewater services



Digital technology and artificial intelligence



Emergency Preparedness



Equity and social justice



Pollution reduction and source control



Population growth



Workforce development



Aging infrastructure



- Need to replace and upgrade aging infrastructure
- Regularly assessing infrastructure and proactively planning upgrades
- Ensure infrastructure sustainability over time
- Will require substantial investments



Changing regulations



- Constantly evolving rules
- Requires ongoing investments and communication with regulatory agencies
- Opportunities to anticipate new rules and influence future policy
- Embrace innovation to cost-effectively meet or go beyond requirements and provide greater water quality benefits

Climate change



- Climate change impacts will require improving system resiliency
- Opportunities to reduce GHG emissions and use more renewable resources
- New and better ways to mitigate impacts





Community engagement



- Regular engagement with community members and partners, including component agencies and local elected officials
- Opportunity to be a community “anchor” to boost connections and better meet community needs
- Facilitate clean water conversations

Customer affordability of wastewater services



- Work to better understand local affordability, develop metrics to measure it, and focus on actionable solutions
- Opportunities to explore:
 - Act as a resource in partnership with local sewer agencies to expand financial assistance through customer assistance programs (CAPs)
 - Better reach multifamily households
 - Work with national organizations and others to advocate for wastewater funding



Digital technology & artificial intelligence



- Technology is transforming wastewater system operations
- Cybersecurity is a current and future threat that utilities must face
- Future technologies & AI can make system monitoring more effective, helping spot problems before they arise





Emergency preparedness



- Natural and human-caused disasters could have catastrophic impacts on wastewater services
 - Earthquakes, severe flooding, cyber attacks, etc.
- Preparedness and mitigation
 - Upgrading infrastructure to handle seismic events
 - Disaster response plans
- Continued investment and innovation
 - Prepare our system to withstand disasters
 - Protect our communities and the environment

Equity & social justice



- Wastewater investments should prioritize avoiding impacts on traditionally under-served populations
- Promote equity through opportunities like employment and job training, and improved community education





Pollution reduction & source control



- While water quality has improved since the 1950s, there is still more to be done
- Contaminants of emerging concern pose new challenges
- Invest in strategies to remove or reduce pollutants upstream (e.g., collaboration with local partners)

Population growth



- Expand infrastructure to keep up with growing demands on the system
- May involve building new pipes, pumps, and treatment facilities
- Tracking potential problems and planning for the future



Workforce development



- Staff shortages, aging workforce, difficulty in retaining qualified individuals
- Explore new ways to strengthen recruitment and retention efforts
- Highly skilled workforce across the region's water-sector utilities





Next steps

- Challenges and Opportunities will be presented at the March 26 MWPAAC meeting
- Challenges and Opportunities will be included as part of the final Vision package
- Vision Themes/Options in May and June



Questions ?



King County | Wastewater Treatment