“The main question for policy-makers and utility managers is whether the increased rate of infrastructure spending that utilities must face over the next 20 years can be financed by utilities themselves at rates that customers can afford.” -- American Water Works Association, 2001

“Extensive and efficient infrastructure is critical for ensuring the effective functions of the economy.” -- World Economic Forum, The Global Competitiveness Report 2013
King County Provides Wholesale Wastewater Service to 34 Local Agencies

- Collects and conveys wastewater:
  - 390 miles of sewer pipe
  - 47 pump stations
  - 25 regulators stations

- Treats wastewater at:
  - 3 regional plants
  - 2 community plants

- Operates wet weather facilities:
  - 4 treatment
  - 9 peak flow storage
Our Challenge

Achieve the rate of infrastructure spending that is currently planned and anticipated over the next 20 years at an affordable rate in light of the following:

- Aging infrastructure and asset management
- Current and future regulatory requirements
- Management of stormwater in combined system and inflow/infiltration in separated system
- Steeplely growing population leading to increase in solid and organic loadings
- Need for resiliency in system
Systemwide Comprehensive Plan

**Purpose** - Update the WTD Comprehensive Plan using an approach that addresses:

- protecting and improving water quality
- plans for population growth
- ensures resiliency for an aging system
- addresses climate change
- establishes a financing and rate structure that is reasonably affordable
Anticipated Contract Value and Schedule

- Two contracts
  - Planning, Economic, Financial and Engineering Technical Services
  - Strategic Communications and Regional Leaders Forum Management

- Value: $2-4 million

- Schedule
  - Advertise 2018
  - Notice to Proceed – Q3 2018
Existing WTD Plan – 1999 Regional Wastewater Services Plan (RWSP)

System Investments

Capital Projects

King County needs to make sure its regional wastewater system keeps pace with growth and meets permitting standards. Here is an overview of planned projects we’re undertaking through 2030 as part of the Regional Wastewater Services Plan, or RWSP, to protect public health, the environment and the economy for both present and future wastewater customers.

RWSP Recommended Conveyance Projects

Completed

In Design or Construction

Future (2012-2030)

Protecting Our Waters Program Projects – Controlling Combined Sewer Overflows (CSOs)

Completed

In Design or Construction

Future (2015-2030)

Treatment Plant Projects

Completed

Regional Wastewater Treatment Divisions

Department of Natural Resources and Parks

Wastewater Treatment Division
Inputs into WTD System Plan

- Strategic Asset Management Plan
- Treatment Plant Flows & Loads Study
- Combined Sewer Overflow Long-term Control Plan Update
- West Point Treatment Plant Restoration
- Conveyance System Improvement Plan
- Inflow & Infiltration Study
- Strategic Climate Action Plan
- Resiliency & Recovery Plan
- Biosolids, Recycled Water, Energy, Technology Assessment Strategic Plans
- Capacity Charge Affordability Study
- Equity and Social Justice Strategic Plan

King County
Department of Natural Resources and Parks
Wastewater Treatment Division
Plan Approach

Use scenario planning and traditional infrastructure concepts

**Part 1:** Scenario Planning - multiple stories that cover a variety of plausible futures

**Part 2:** Traditional Infrastructure Planning - analysis of alternatives to address a defined need
Scenario Planning: Analysis of Scenarios

- **Feasibility analysis**: First level of analysis to assess which concepts should move forward in process

- **Outcome**: Alternatives (2 or 3) for further development and analysis
Framing Plausible Scenarios

- Scenario 1
- Scenario 2
- Scenario 3
- Scenario 4
- Scenario 5

Key Themes:
- Affordability/Equity
- Water Quality Protection/Public Health
- Asset Management/Resiliency
- Sustainability
- Regulatory
Range of Concepts to be Considered in Scenarios

- Baseline WTD plans
- Alternate approaches to CSO compliance
- Demand/capacity management
- Alternate financial models
- Alternate water quality protection approaches
- Asset management and resiliency
- Advanced resource recovery
Traditional Infrastructure Planning: Analysis of Alternatives

• **Engineering analysis**: Second level of analysis to determine which alternative to implement
  • Refinement and further definition of scenarios.
  • Multiple analyses including engineering, full social cost benefit analysis, environmental, policy

• **Outcome**: Recommended alternative with financing plan for prioritized strategy for regional water quality protection
Consideration of Regional Infrastructure Needs

Plan must consider other infrastructure needs in the region.
Public and King County Leadership Involvement

Plan Development:
- WTD Staff
- Consultant Team

Regional Input:
- Regional Leaders Forum
- MWPAAC
- Public Engagement

Advisory:

Decision Makers:
- King County Leadership
  - King County Executive
  - King County Council

System Plan:
Public Affairs and Public Engagement

- Involve stakeholders to shape planning, advise the King County Executive
- Establish a Regional Leaders Forum
  - Forum will guide a parallel community engagement effort
Equity and Social Justice

WTD Service Area
Equity and Social Justice

System Planning

- Evaluate our system using Equity and Social Justice considerations, strategies, and goals will be components at every step of the process.
- System Plan Team (Consultants and Staff) are expected to apply equity considerations and develop pro-equity alternatives.
Expected Outcomes of Systemwide Comprehensive Plan

- Strategic Plan to guide future investments
- Allocating the right dollars to the right projects at the right time
- Ensure core mission to protect water quality
- Achieving best water quality benefit for the investments made
- Prioritized list of activities WTD is going to undertake to protect water quality
Next Steps

• Consultant procurement Q2 2018
• Initiation of planning work Q3 2018
Questions

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