

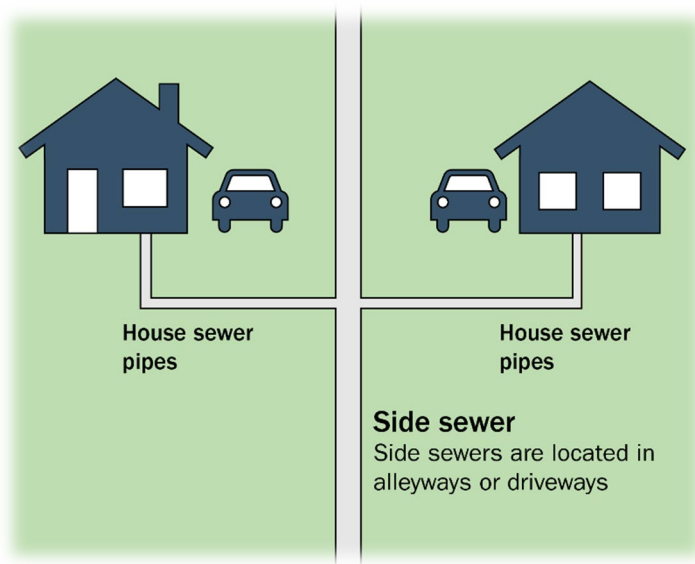


King County

Department of
Natural Resources and Parks
Wastewater Treatment Division

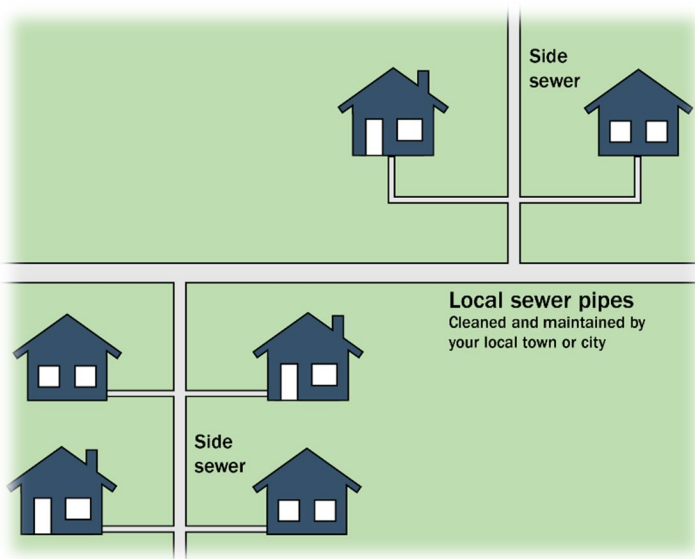
King County Wastewater 101

How Your Sewers Work



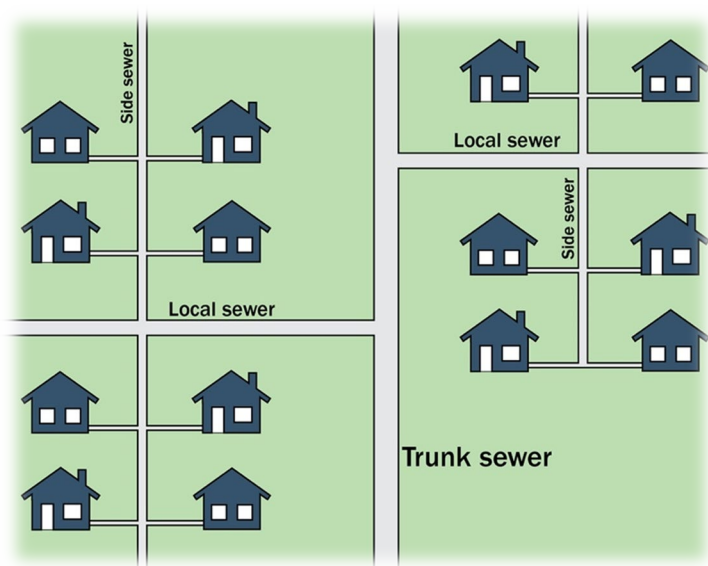
Side Sewer Pipe

Side sewer pipes are found underneath your driveway or alleyway. They carry wastewater to a sewer line under your local street. Property owners are responsible for installing, inspecting, maintaining, and repairing their side sewers.



Local Sewer Pipe

Local sewer pipes run underneath your city streets and arterial streets. Usually, local sewer pipes are maintained by a city or sewer district. King County coordinates with local sewer agencies to connect local sewer lines with King County's regional wastewater system, but King County does not manage or maintain local sewers.



Trunk Sewer Pipe

Trunk sewer pipes are one of the main sewer lines in the wastewater collection system. They collect and carry wastewater from your local sewer pipes to an *interceptor sewer pipe* (see next glossary item), or directly to the regional wastewater treatment facility. Trunk sewer pipes are to local sewer pipes as arterial streets are to neighborhood streets.

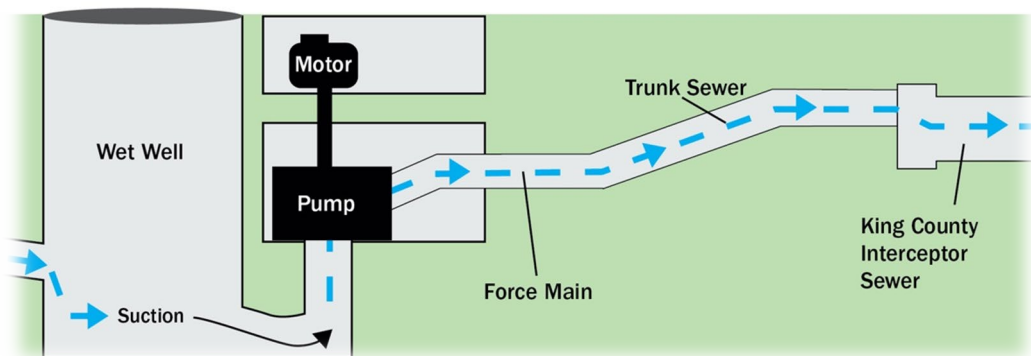


Interceptor Sewer Pipe

Interceptor sewer pipes receive wastewater from several trunk sewer pipes and carry it to a regional wastewater treatment facility. These are the largest sewer pipes in the system. They are also the last type of sewer pipe wastewater flows through before arriving at a treatment facility. An interceptor sewer pipe is like a highway that wastewater takes to reach its destination.

Force Main

A *force main* is a pressurized sewer pipe that carries wastewater uphill from a sewer pump. Force mains are used when wastewater needs help making it up a steep hill or slope. Force mains are specially designed to avoid odor problems.



Pump Station

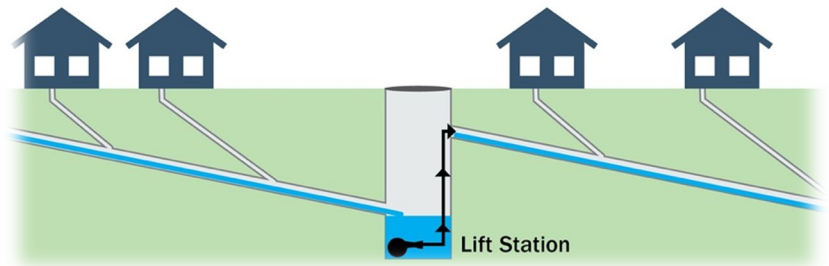
Pump stations pump wastewater uphill. Stations vary in size and type depending on the quantity of wastewater to be handled, how far it needs to go, and how far the wastewater must be pumped before it reaches another pump station or starts to flow downhill.

Gravity Sewer Pipe

Gravity sewer pipes use gravity to convey wastewater. Gravity sewers require less energy than *force mains*.

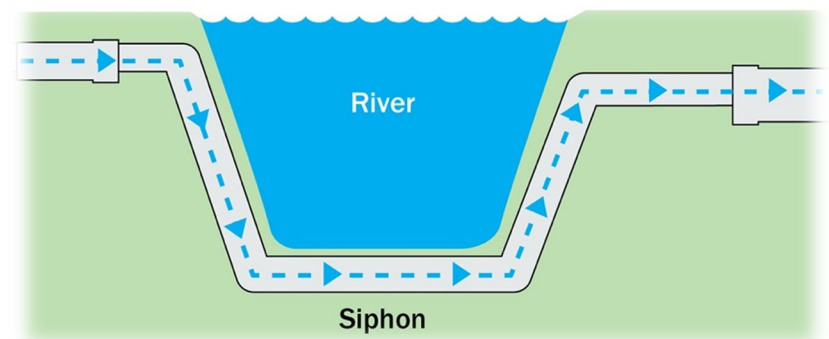
Lift Station

Lift stations are facilities designed to move wastewater from lower to higher elevation, particularly where the elevation of the source is not sufficient for gravity flow or when the use of gravity conveyance will result in excessive excavation depths and high sewer construction costs.



Siphon

A *siphon* carries wastewater through a pipe under a roadway, waterway or around a utility or other obstacle. A siphon carries wastewater downhill, so it does not require pumping, minimizing energy use.



How King County Works

20-year peak wastewater flows

King County is using a *20-year peak wastewater flow* design standard for its sewer conveyance facilities. This means that the County designs sewer projects to be able to hold an amount of water that only has a 5% chance of flowing through our system in any given year. This includes wastewater from homes and businesses and the excess water that flows into sewer pipes from groundwater and stormwater, called infiltration and inflow. By designing to this standard, we greatly reduce the likelihood that our pipes will reach their capacity at any given time.

King County Equity and Social Justice Ordinance

King County's Equity and Social Justice Ordinance identifies specific approaches to implement the countywide strategic plan for fair, just, and equitable opportunities for all people and communities.

Public Involvement Plan (PIP)

For every Wastewater Treatment Division project, the community relations team develops and implements a Public Involvement Plan (PIP). The PIP provides all project team members with a roadmap for engaging

with key stakeholders and other affected people and organizations during each phase of the project or program.

Geotechnical investigations

Geotechnical work helps the project team understand physical conditions underground. It involves testing the soils and rocks around a project site. Activities related to this work may include observing physical conditions, mapping, digging, trenching, or boring. During planning and design, project teams perform geotechnical investigations to explore a project area and plan and design a project that works well within the existing environment.

Easement

An easement gives the holder the right to use and or enter property for a specified purpose. Many projects require King County Wastewater Treatment Division to obtain a temporary easement or permanent easement from a property owner to access property for construction or maintenance work. King County staff works one-on-one with property owners to discuss and negotiate these easements.