



Project Element: Odor Control

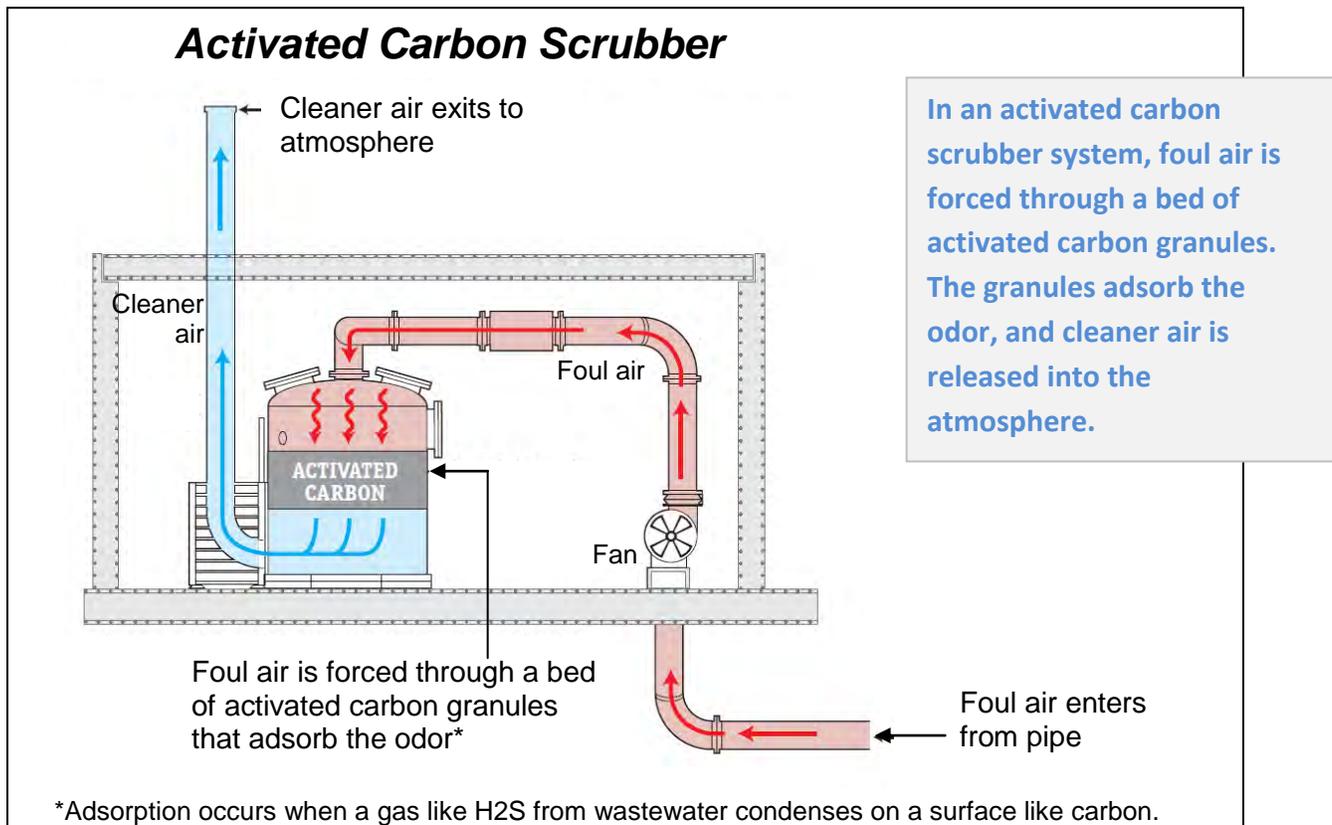
Spring 2012

King County is currently designing a replacement for the Fremont Siphon, a wastewater conveyance system that extends from Fremont to Queen Anne in a concrete tunnel located under the Lake Washington Ship Canal. King County proposes to install two new pipelines in a new crossing under the Ship Canal just west of the existing siphon pipelines.

In response to community concerns and field investigations to evaluate odor from King County's existing sewer system, the project team is refining the project proposal to include odor control. During the planning phase, Fremont neighbors expressed concerns about odor from manholes associated with the North Interceptor. King County staff conducted odor monitoring and analysis of the existing system while the design team modeled air flow in the new system. As a result of these efforts, the project includes odor control for both the existing and new system.

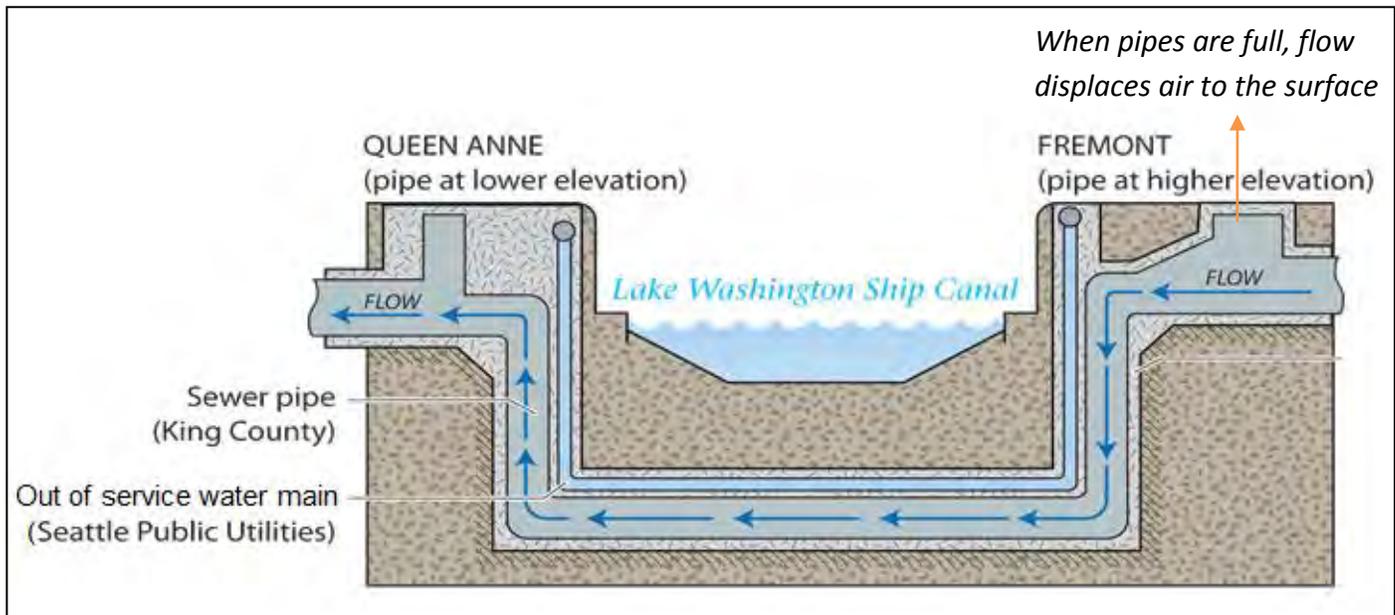
The county is recommending an activated carbon scrubber system to mitigate odors (see diagram below). The odor control structure is anticipated to include both above- and below-ground elements and structure designs and aesthetics will be developed with community input.

How does odor control work?



Why is there odor in Fremont?

When the North Interceptor pipelines in Fremont fill up and flows enter the Fremont Siphon, air is displaced in the pipes and finds its way to the surface. Analysis of this air indicates that odor is coming primarily from organic compounds in wastewater, not from hydrogen sulfide gas common in wastewater systems. Odor control is designed to treat the volume of air present in the system and the type of compounds causing the problem.

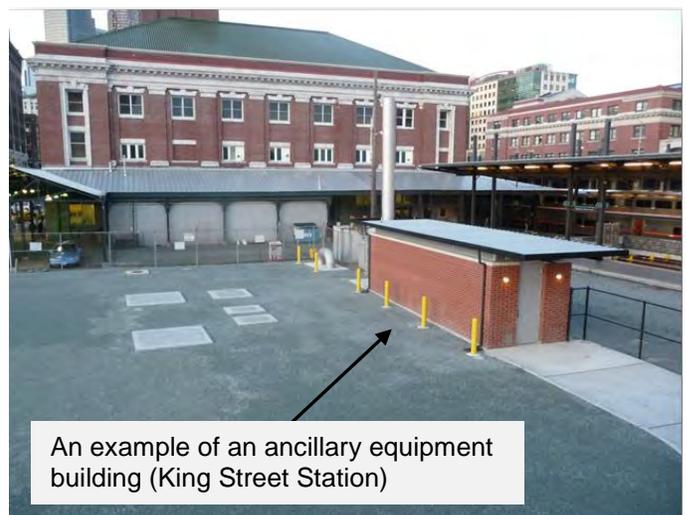


Why do we need odor control?

King County protects public health and the environment by treating millions of gallons of wastewater every day. Being a good neighbor by controlling odors is a part of normal operations:

- We continuously monitor our existing treatment plants, pipeline network and pump stations
- We take measures to avoid odor problems in the system
- We respond immediately to odor complaints and continually explore solutions to odor issues

The Wastewater Treatment Division makes every effort to respond to odor complaints promptly and effectively. Odor complaints in the Fremont and Queen Anne areas believed to be associated with King County's system can be reported to West Point Treatment Plant Main Control 24/7 at 206-263-3840.



An example of an ancillary equipment building (King Street Station)