



Response to Questions on the 2016 LOBs

Request By: Supervisor Cook

Relevant LOB(s): N/A

Question: What is the wastewater system's actual average asset life versus industry average life?

Response:

Reinvestment in the existing infrastructure is a priority for the Wastewater Program. Funding for reinvestment is included in the financial models and projected on a ten year horizon. Long range projections are generated utilizing industry standards, the value of the assets, the criticality of the assets, and the estimated life of the assets, which varies with asset type. The County maintains an asset management system that includes an inventory, a maintenance history, a criticality rating, and a condition assessment when the information exists. Much of the Wastewater system was built prior to computer automation and the asset management system has evolved and continues to evolve as new technologies become available. New technologies both determine and predict asset condition as well as manage and utilize a large volume of information. Staff has provided below examples of two major elements in the system and their average lifespan and reinvestment planning.

Pump Stations:

The industry average life of a pump station is estimated to be 30 years. Wastewater staff builds the program's financial plan based on an average 30-year life, but not all pump stations and not all components will last the full 30 years. Some assets will last considerably longer than the projected life and frequently staff is required to replace a component such as a generator, but not the actual pumps or structural components such as the roof. On average, staff is rehabilitating pump stations every 25-27 years. The rehabilitations are done in advance of the pump station failure to prevent raw sewage spillage. The oldest station is 63 years old and has been rehabilitated twice, most recently in 2014. More than one third of the program's pump stations lasted more than the average life of 25-27 years, ranging from 27 to 50 years, before requiring rehabilitation.

Collection System Pipes:

The industry average life expectancy of collection system pipes is estimated to be 60 years, but if staff can relined the pipes before they fail, the lifespan of the pipe is extended by another 30-60 years. This practice is much less expensive and is less disruptive than if a total failure occurred. Wastewater staff utilizes maintenance history and television inspection to determine pipe conditions. This information is used in conjunction with the criticality of the pipe to determine which segments to relined each year.



Staff will provide a briefing on the asset management programs and reinvestment strategies for wastewater facilities at an upcoming Environmental Committee meeting. This will allow for additional explanation regarding current practices and the ability for staff to answer additional Board of Supervisors' questions.