

## **ACTION ITEM 7.5 – SEWER SYSTEM REHABILITATION PROGRAM**

### **ACTION ITEM**

Maintain a program for prioritizing and performing needed sanitary sewer system rehabilitation projects.

### **OBJECTIVE**

Sanitary sewer system rehabilitation projects restore the structural integrity of the sewer system and reduce the hydraulic loads by eliminating I/I.

### **DESCRIPTION OF MEASURE**

Local wastewater providers within the Metro Water District will maintain a sewer system rehabilitation program. The purpose of a sewer system rehabilitation program is to ensure rehabilitation projects identified during system inspections are properly recorded and implemented. The sewer system rehabilitation program, at a minimum, will include the following:

- Procedures for prioritizing rehabilitation projects based on severity of defects, cost effectiveness, and hydraulic capacity
- Schedule for sewer system rehabilitation projects

**Responsible Party**

Local Government

Local Wastewater Provider

Other: \_\_\_\_\_

  

**In Coordination With**

Site Plan Review Staff

Community Development/ Zoning

Local Stormwater Program

Local Water Providers

Local Wastewater Provider

County Board of Health

Other: neighboring wastewater providers, as necessary

### **SPECIFIC SUB-TASKS**

<b>Sub-Task</b>	<b>Description</b>
Prioritize rehabilitation projects	Develop a priority list of rehabilitation projects.
Develop schedule and budget	Based on available budget and staff project the timeframe for the most critical rehabilitation projects.
Implement rehabilitation program	Rehab infrastructure based on schedule and budget for critical infrastructure.
Annual planning and budgeting	Consider rehabilitation needs as part of the annual budget process.
Rehabilitation project documentation	Document the rehabilitation performed in the asset management program or CMMS program.

### **REHABILITATION TECHNIQUES (OPTIONAL)**

Several traditional and new rehabilitation projects that may be considered by local wastewater providers are outlined below. Many of the local wastewater providers in the Metro Water District have ongoing rehabilitation programs, with a number of projects already accomplished.

## Section 7: COLLECTION SYSTEM INSPECTION AND MAINTENANCE

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Trenchless technology is a method of construction for replacing sanitary sewer pipelines without employing the longer-term disruptive aspects of conventional open cut excavation. Benefits of rehabilitation work performed using trenchless technology versus conventional rehabilitation methods include shorter disruption of sewer service during work and lower costs. Common trenchless technologies used in sewer system rehabilitation programs include pipe bursting and sliplining. Pipe bursting is a method for replacing a failing sewer pipe by inserting a new pipe of equal or larger diameter into an existing pipe by bursting open the existing pipe and pulling or pushing a new pipe into the old pipe and expanding it into the surrounding soil. The new pipe is simultaneously inserted into the hole created by the expander. Sliplining involves sliding a liner pipe of slightly smaller diameter into an existing sewer pipeline and grouting the residual annular space to secure the liner position and improve resistance to external loads.

Manhole repair technologies include grouting, cementitious lining, fiberglass, epoxy and expansive synthetic materials. Grouting rehabilitation involves grouting manhole defect areas where there is evidence of leaks. Manhole leaks are often concentrated at joints, pipe inverts or lift holes. Typically, grouting is used to repair smaller leak areas found in manholes. Alternatively, cementitious lining, fiberglass, epoxy and expansive synthetic materials are used for full manhole rehabilitation where leaks are found over a large proportion of the manhole. In this technology, manholes are fully lined to seal the areas where leaks are occurring.