



Highlights

Highlights of OCA-12-001

Why OCA Did This Study

Effective water and wastewater systems are critical to public health, the environment, and the economy. The City of San Diego has an aged and deteriorating water and sewer infrastructure resulting in violations to the Clean Water Act and California Health and Safety Code. Like many cities, San Diego has a Capital Improvement Program (CIP) for installing new and replacing deteriorating capital infrastructure. This audit was conducted to determine the extent to which Public Utilities is effectively identifying renewal and replacement needs and planning for capital infrastructure; Public Utilities and Public Works/Engineering are effectively managing projects; and Comptroller's Office is charging appropriate overhead rates. To do this, OCA analyzed financial data; reviewed best practices for asset management, capital planning, and project management; and assessed project delivery data.

What OCA Recommends

OCA is making 18 recommendations to improve Public Utilities' asset management program and capital planning, including (1) determining the frequency that the condition of assets should be assessed and establishing a schedule for these assessments, particularly for water transmission mains; (2) completing an asset management plan, including clear numeric goals for the target level of condition of appropriate assets; and (3) developing a comprehensive Wastewater Master Plan when the plan is updated. To improve the monitoring and reporting of project delivery costs, we are recommending that Public Works/Engineering establish specific requirements to monitor and report project delivery costs and annually compile and analyze performance data of completed projects to identify and address inefficiencies.

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Public Utilities Capital Improvement Program

Steps Have Been Taken to Implement Asset Management and Planning, but Improvements Are Needed to More Effectively Manage Projects

What OCA Found

Comprehensive asset management is a recommended best practice for identifying needed maintenance and planning capital investments for asset renewal and replacement, because it will provide key data on the inventory and condition of assets to help officials make sound decisions. The Department has taken various steps toward implementing asset management, but these efforts are not comprehensive and improvement is needed. For example, Public Utilities has assessed the physical condition of many above-ground assets, but has only assessed about one percent of its water transmission pipes. This is largely due to the challenges of accessibility of underground water mains, service disruption, and high associated costs. In addition, the Department lacks targets for acceptable asset condition levels and has not completed an asset management plan, although officials told us they expect to complete the plan by the end of fiscal year 2012.

Master planning and capital improvement planning provide an overall perspective of developments in the City so that decision-makers can take a long-range view of future needs, projects, and priorities. Public Utilities has developed three master plans to address capital needs—the Water Facilities Master Plan, Draft Metropolitan Wastewater Plan, and Municipal Wastewater Collection System Master Plan—but only the Water Facilities Master Plan is comprehensive and in-line with best practices. The affordability of water and wastewater rates is a primary concern to the City and constrains the amount of funds that can be raised for CIP projects. Given the deteriorating and aged infrastructure, capital needs are generally greater than available funds. While Public Utilities' master plans include an extensive planned infrastructure replacement program over the next 20 years, the Department is not reporting a backlog of projects that it is unable to implement due to funding constraints. By not reporting the backlog of unfunded projects, stakeholders cannot see the big picture and fully understand the implications of deferring projects.

The California Multi-Agency CIP Benchmarking Study provides statewide averages for project delivery costs. Based on our sample of 44 projects, we found that the City of San Diego's average project delivery cost is in line with the statewide average of 25 percent. However, for smaller projects valued between \$100,000 and \$2 million, the City's average delivery costs are 14 percent higher than the statewide average of 33 percent. Officials attribute higher project delivery costs for small projects to several uncontrollable factors, including the City's limited access to public bond markets from 2004 to 2008 and below market bids due to the nation's economic recession. We believe that the City's project delivery costs are higher for smaller projects because Public Works/Engineering officials are not reviewing and reporting project delivery costs for each project or generating summary reports at project completion. As a result, the high delivery cost for smaller projects is not observable because likely savings from larger projects overshadow inefficiencies in smaller projects.