

# Water/Wastewater Asset Manager

## A Management Tool for Integrating Capital Planning, Replacement and Operation and Maintenance Decisions

Implementation of an asset management program provides agencies with the opportunity to examine in detail the current state of their facilities and plan for the future. By defining a level of service and implementing an effective maintenance program, utility managers can stretch existing resources. An asset management system allows managers to accomplish these actions.

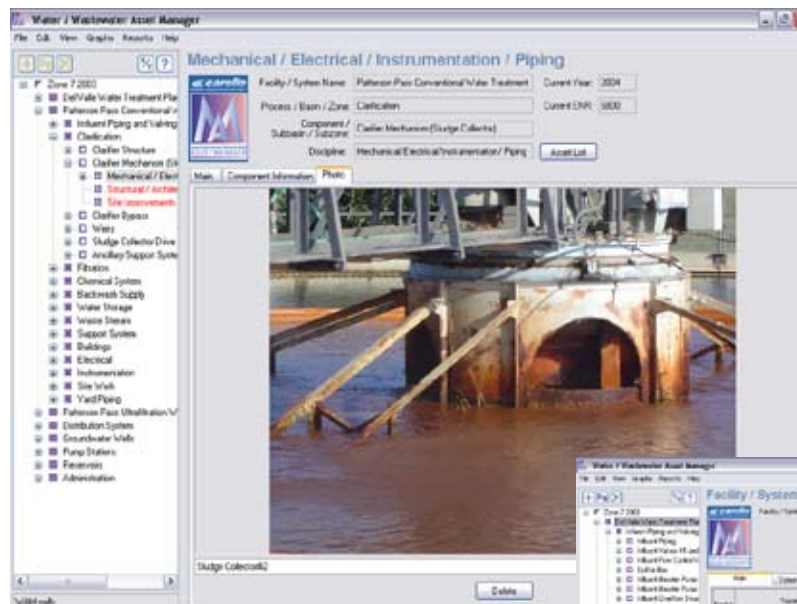
Carollo Engineers' Water/Wastewater Asset Manager software can provide valuable insight into the effectiveness of existing maintenance programs, potential impacts on facility and asset valuations, and future facility needs. The Water/Wastewater Asset Manager delivers to utility managers a powerful computer-based program that will meet an agency's needs today and tomorrow.

### Features

- ▶ Detailed Inventory Database Capabilities.
- ▶ Asset Assessment Tracking.
- ▶ Multiple Simultaneous Facility Valuations.
- ▶ GASB 34 Straight-line and Modified Depreciation Approaches.
- ▶ Ability for Maintenance Program Integration.
- ▶ Customized Queries for Reports and Graphs.
- ▶ Compatible with the Master Plan Manager and Financial Planning Tool.

### Purpose

Carollo Engineers' Water/Wastewater Asset Manager software program serves as the information hub and processor for the major steps involved in implementing an asset management program. Those steps include: (1) developing a strategic vision; (2) performing a detailed inventory of the physical assets; (3) conducting assessments of facilities; (4) calculating the valuation of the facilities and its components; and (5) integrating the repair and maintenance schedule within the capital improvement planning; (6) performing strategic decision analyses on the results of Step 5; and (7) implementing and continuing the asset management program.



The Water/Wastewater Asset Manager software provides the necessary financial and assessment data for agencies to make better decisions.

Facility / System	Current Year	Current CAPX
Palmdale Plant Conventional Water Treatment	2008	5632

Category	Current Year	Current CAPX
Sludge Collector	100	100
Sludge Collector Pump	100	100
Sludge Collector Pipe	100	100
Sludge Collector Valve	100	100
Sludge Collector Structure	100	100
Sludge Collector Instrumentation	100	100
Sludge Collector Electrical	100	100
Sludge Collector Piping	100	100
Sludge Collector Foundation	100	100
Sludge Collector Access	100	100
Sludge Collector Safety	100	100
Sludge Collector Maintenance	100	100
Sludge Collector Replacement	100	100
Sludge Collector Decommission	100	100
Sludge Collector Other	100	100
<b>Total</b>	<b>100</b>	<b>100</b>

"Dedicated to creative, responsive, quality solutions for those we serve."

The Water/Wastewater Asset Manager is tailored to facility field assessments including printable field assessment sheets, and provides a detailed record of each assessed component/subbasin/subzone. The program serves as the data collector for the asset inventory and integrates the condition, criticality, vulnerability, risk and level-of-service rankings into a database. It uses a Microsoft Access™ database format for easy retrieval and analysis of collected information. The software also allows for Microsoft Excel™ spreadsheets to be imported and integrated to allow for the easy inclusion of buried infrastructure data. In addition, the software calculates the remaining useful life and costs for repair and replacement of each component/subbasin/subzone, process/basin/zone, and for the entire facility/system. When used in conjunction with the financial analysis feature, it can also provide direction for the future on how to achieve the maximum benefit from facilities, infrastructure, and equipment.

The software provides a consistent methodology for evaluating assets, and for prioritizing repair and/or replacement projects. It also allows for the various parameters to be "tracked" over their lives with database time series capabilities. Water/Wastewater Asset Manager also has global update features to simultaneously change certain parameters throughout the software.

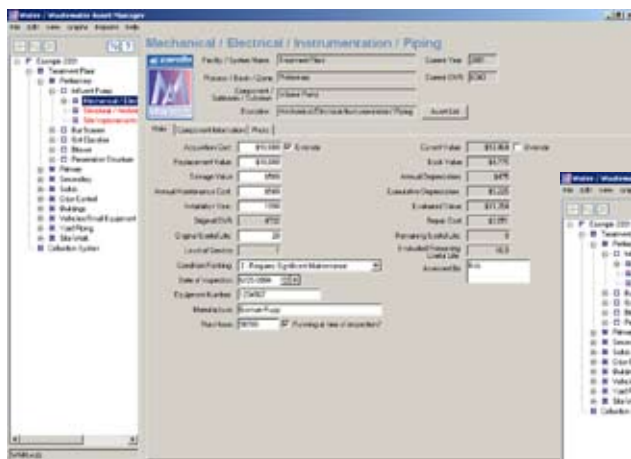
Several financial valuation approaches are commonly used today to assess the value of water and wastewater assets. These include acquisition cost, current value, book value, current value less repair costs and replacement value. Other financial features include

evaluated value, salvage value, and annual and cumulative depreciation. The Water/Wastewater Asset Manager allows for the simultaneous calculation of various valuation methods.

With the established asset inventory, assessments, and valuations, Carollo Engineers' Water/Wastewater Asset Manager software provides for a "what-if" analysis of the agency's maintenance programs and Capital Improvement Program (CIP). These analyses are accomplished in part through the customized queries that mine data for various reports and graphs. Based upon the selected level of service, the asset management software determines the resulting annual repair and/or replacement cost to meet the defined level of service.

Carollo Engineers' Water/Wastewater Asset Manager, when used in conjunction with Carollo Engineers' Financial Planning Tool, allows for detailed financial analysis. The impact on cash flows resulting from changes in the maintenance program and CIP is an important consideration in the financial outlook for an agency.

The Financial Planning Tool is used in conjunction with the Water/Wastewater Asset Manager to investigate the ability to meet debt service obligations, required coverage ratios, and changes to user rates and connection fees. By examining the agency's maintenance program, the Water/Wastewater Asset Manager can be used to examine GASB 34's straight-line and modified depreciation approaches.



*The Water/Wastewater Asset Manager database contains asset inventory and classification assessment, and valuation data in one convenient, central location.*

