

Sustainable Tank Asset Management



Utility Service Group

- ▶ National Service Capability
- ▶ Solutions to Optimize CapEx & OpEx
- ▶ Focused on Asset Management and Preserving Water and Wastewater System Assets
- ▶ Largest provider of water tank maintenance and management in Nation.
- ▶ Distribution System Rehabilitation Services
- ▶ Unique business approach which combines AM principles, technology, funding and fixed payments
- ▶ Over (5,200) water tanks under the Full Service Maintenance Program nationwide
- ▶ Over (1,400) Renovations completed in 2014



Water Tank Styles & Designs:



Leg Tank





Standpipe



Reservoir or Ground Storage





Concrete Tanks



Bolted Tanks



Redwood Tank



Tank converted into restaurant



House Tank



Would could go wrong?



Tank Failure: 300,000 gal GST



Tank Failure: 250,000 gal Elevated





Tank Asset Management

The Asset Management Concept:

An asset management provider will evaluate, plan and provide ALL maintenance and repair needs for the water storage facilities on an ongoing sustainable basis. (GASB34)

VS. “Run to Failure”



Why Asset Management?

- **AWWA M42: Steel Water Storage Tanks (1998):**
 - **“ A good, comprehensive preventative maintenance program can extend the life of an existing tank (as well as that of a new tank) INDEFINITELY”**
 - **“ Many thousands of dollars can be saved and complaints from citizens can be eliminated if a planned approach to tank maintenance is adopted.”**
 - **“ Small outlays for maintenance can substantially delay or eliminate the need to replace a utilities large capital investment in tanks**



Why Asset Management?

▶ **AWWA “Steel Water Storage Tanks”
(2010) Chapter 10, Page 381:**

“Why have a maintenance program? The answer is simple: Preventive maintenance has been, and always will be, less expensive than crisis maintenance.”

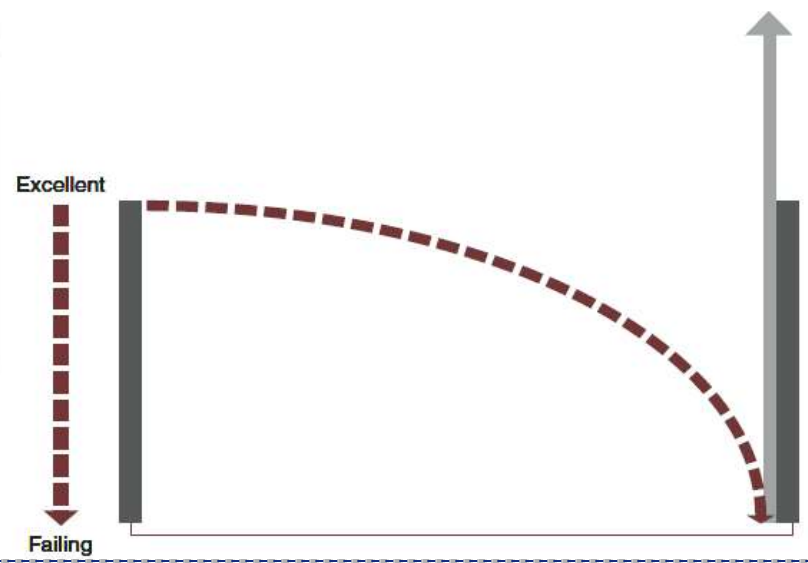




Asset Management Programs are Designed to Extend the Useful Life of Assets

Run-to-Failure Management Model

Sewer system assets that are not regularly maintained usually deteriorate faster than expected and lead to higher replacement and emergency response costs.



Cost-effective!

Asset Management Model

Components are regularly maintained over long planning cycles, and finally replaced when deterioration outweighs the benefit of further maintenance. Costs are well-distributed over the life of the asset.



Traditional Method of Tank Maintenance Procurement

- ▶ Owner or third party firm conducts condition assessment & develops scope of work and specifications
- ▶ Specifications are advertised
- ▶ Contract awarded to lowest bidder
- ▶ Owner hires an inspection firm for enforcement of specification
- ▶ Typically one year warranty period
- ▶ Limited sustainability





Traditional Method of Tank Maintenance Procurement

Benefits:

- ▶ Total Control of Scope of Work

Drawbacks:

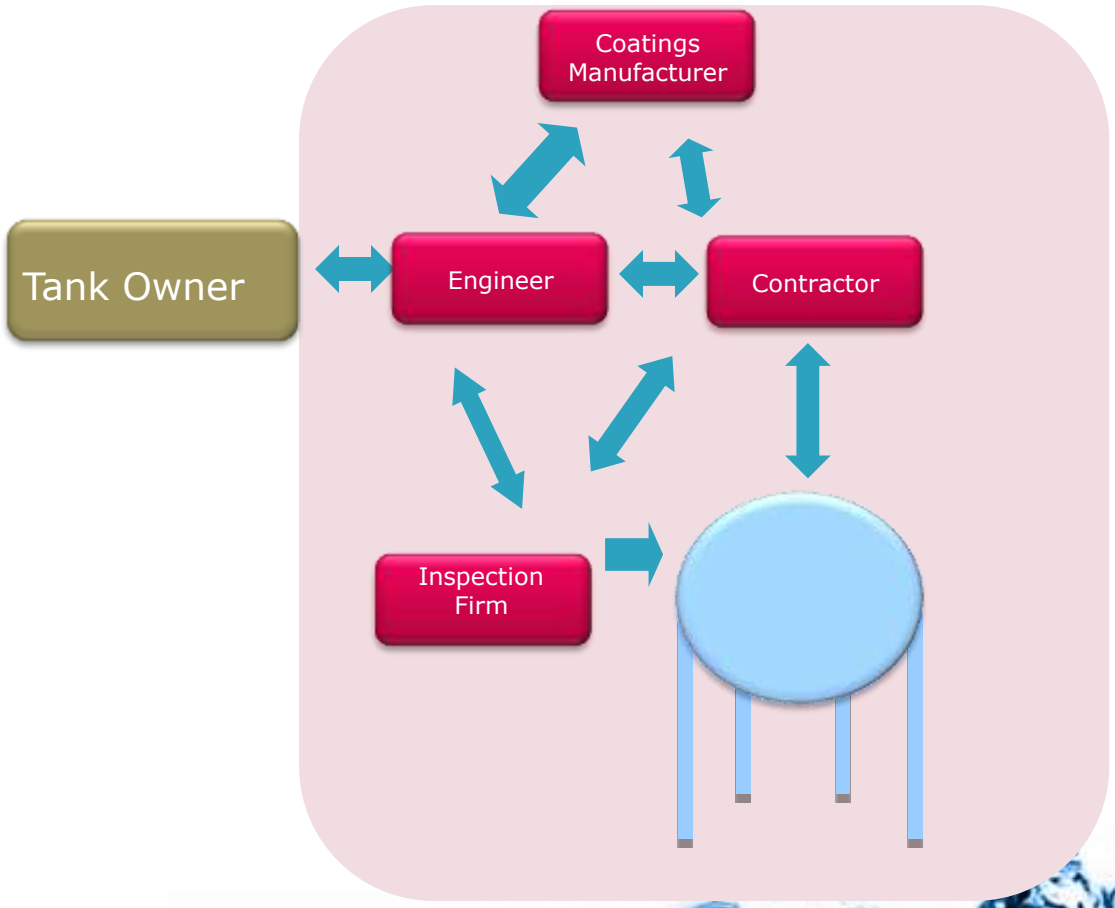
- ▶ Potential adversarial relationship
- ▶ Responsibility “passing” among contractors
- ▶ Potential for additional work (Change Orders)
- ▶ Limited warranty period
- ▶ Limited sustainability



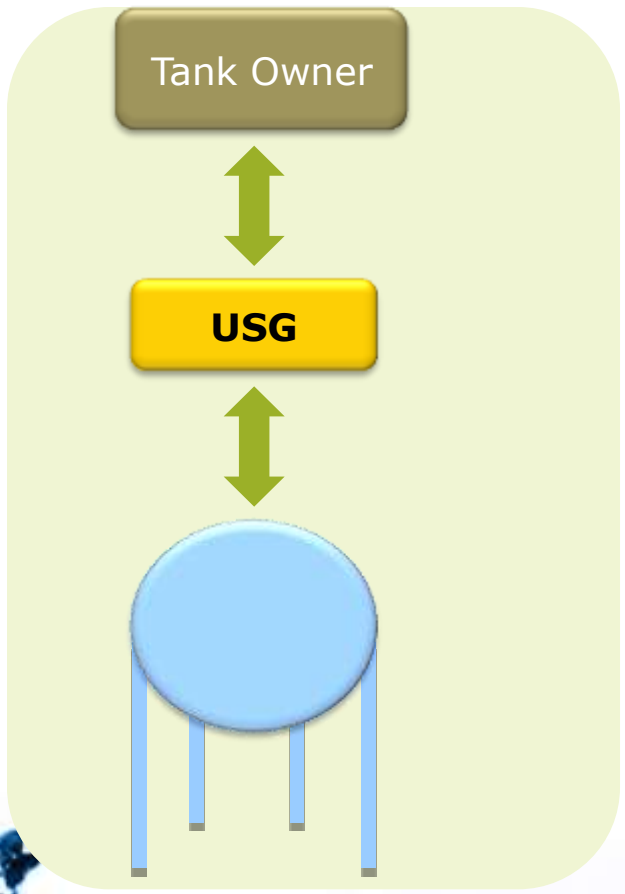


Traditional vs Asset Management

CLASSIC – Fragmented Business Model



NEW – USCI Business Model





Comprehensive Asset Management Programs

Benefits:

- ▶ Single source responsibility
- ▶ Balanced funding/Spreading of Costs
- ▶ Evaluation and planning
- ▶ Regulatory compliance
- ▶ Annual inspection and maintenance
- ▶ Emergency repair service
- ▶ GASB 34 compliance possible
- ▶ Sustainable method of maintenance

Drawbacks:

- ▶ Long-term status of the maintenance provider



Single Source Responsibility

- ▶ Maintenance provider is responsible for ALL aspects of tank maintenance
- ▶ Reduces time and training requirements of elected officials and system employees
- ▶ Eliminates passing of responsibility



Balanced Funding/Spreading Costs

- ▶ Eliminates large lump sum expenditures
- ▶ Provides easy budgeting and controlled allocations of maintenance funds
- ▶ Allows for initial repair costs to be spread out over a number of years and covers cost of future repaints
- ▶ Eliminates need for emergency repair funds
- ▶ Assures dedicated funding for maintenance of the systems more valuable assets



Evaluation and Planning

- ▶ Provides detailed evaluation of all maintenance needs by qualified engineers and N.A.C.E. certified coatings inspectors
- ▶ Provides detailed short-term and long-term plans for maintenance
- ▶ Maintenance provider assumes responsibility for implementation of plan



Regulatory Compliance

- ▶ Maintenance provider assures compliance with all Federal, State and local regulatory issues: AWWA, OSHA, NSF, ODHS and FAA
- ▶ FCC regulations regarding antenna installations
- ▶ Annual inspections to verify continued compliance with current regulations



Annual Inspections and Maintenance

- ▶ Annual visual inspection.
- ▶ Biennial washout inspection to remove sediment with chemical cleaning for biofilm removal
- ▶ Annual inspections to verify GASB 34 compliance.





Emergency Repair Service

- ▶ Maintenance provider provides emergency repair service
- ▶ Sanitary conditions verification annually
- ▶ Leak repair
- ▶ Damage from vandalism



Components of a Comprehensive Tank Asset Management Program

- ▶ Must include ongoing maintenance of the following conditions:
 - Safety Conditions
 - Sanitary Conditions
 - Coatings Conditions
 - Structural Conditions
 - Security Conditions



GASB 34 Compliance

- ▶ GASB: Governmental Accounting Standards Board
- ▶ Formed in 1984 as private sector organization
- ▶ Setup to establish financial accounting and reporting standards for state and local governments
- ▶ Statement No. 34



GASB 34 Modified Approach

To use the Modified Approach there are two requirements:

- ▶ An asset management system (maintenance program) must be used to maintain ALL aspects of tank maintenance.
- ▶ Documentation that the assets are being preserved at, or above, the declared condition level (inspections).



GASB 34 Modified Approach

- ▶ Allows communities to avoid the need for setting up depreciation schedules
- ▶ Net assets (Net worth) will be higher than comparable communities using the depreciation method
- ▶ Estimated service life for water storage tanks is not accurate (30 to 60 years)



American Public Works Association Guidance Position Statement on GASB 34

“Because accounting based on historical costs and depreciation is not a useful management tool, and because effective tools are available to develop asset management systems, **APWA recommends that agencies local and state government use the “*modified approach*” allowed under **GASB 34.....”****





Practical Sustainable Tank Asset Management Program Summary

A comprehensive practical tank asset management program is a viable option to the traditional tank maintenance procurement methods and offers a simplified, economical, SUSTAINABLE approach to tank maintenance

VS. “Run to Failure”



Full Service Asset Management Program

- ▶ Single Source Responsibility/Reassignment of Risk
- ▶ Balanced Funding/Spreading of Costs
- ▶ Evaluation and Planning of All Maintenance
- ▶ Regulatory Compliance
- ▶ Emergency Repair Service
- ▶ Indefinite Warranty / No Surprises
- ▶ GASB 34 Compliance: Modified Approach
- ▶ Set annual budget figure
- ▶ Equity Builds Towards Future Renovations
- ▶ Annual Inspection, Biennial Washouts with detailed reports
- ▶ Access to Online Portal
- ▶ No Change Orders
- ▶ N.A.C.E. Inspection on All Renovations
- ▶ Capital Assets RETAIN their value





Burning Questions?





Sustainable Tank Asset Management

Contact Info:

Jeff Austin

Phone: 503-713-8823

jaustin@utilityservice.com





Summary of Options:

	Traditional Method	Contract Services	Full Service Asset Mgt
Description	One-time job	Fees for specific tasks	Provider manages the asset
Warranty	1-year	1-year	Perpetual
Entities Involved	3+	1+	One firm
Risk	w/ the Owner	w/ the Owner	the Provider
Future Renovations	No	No	Yes
Emergency Services	No	No (unless specified)	Yes
Inspections and Cleanings	No	Yes (if specified)	Yes
Sustainable & GASB 34	No	No	Yes