

A closer look at

Water Tank Maintenance Programs

A different approach to protecting and
prolonging the life of your capital assets



Water Tank Maintenance 101

Replacement Construction Cost:

\$1.50 to \$3.00 per gallon of storage



500,000 gallon
elevated tank



3,000,000 gallon
ground reservoir



8,300,000 gallon
ground reservoir

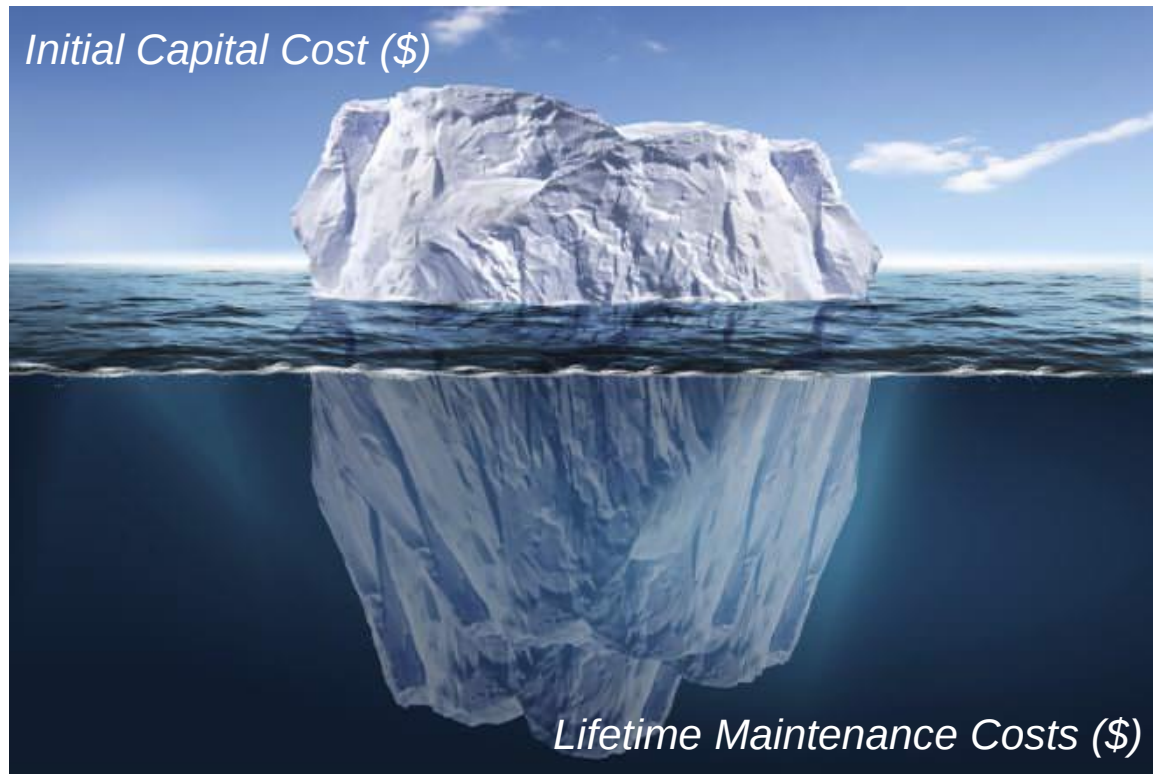


5,000,000 gallon
ground reservoir

Nearly **17,000,000** gallons of storage in the City of Brighton's potable water storage system.

Over **\$30M** in water storage assets

Water Tank Maintenance 101



Total life-cycle maintenance costs are usually **one to two** times the capital cost of a water tank asset.

Water Tank Maintenance 101

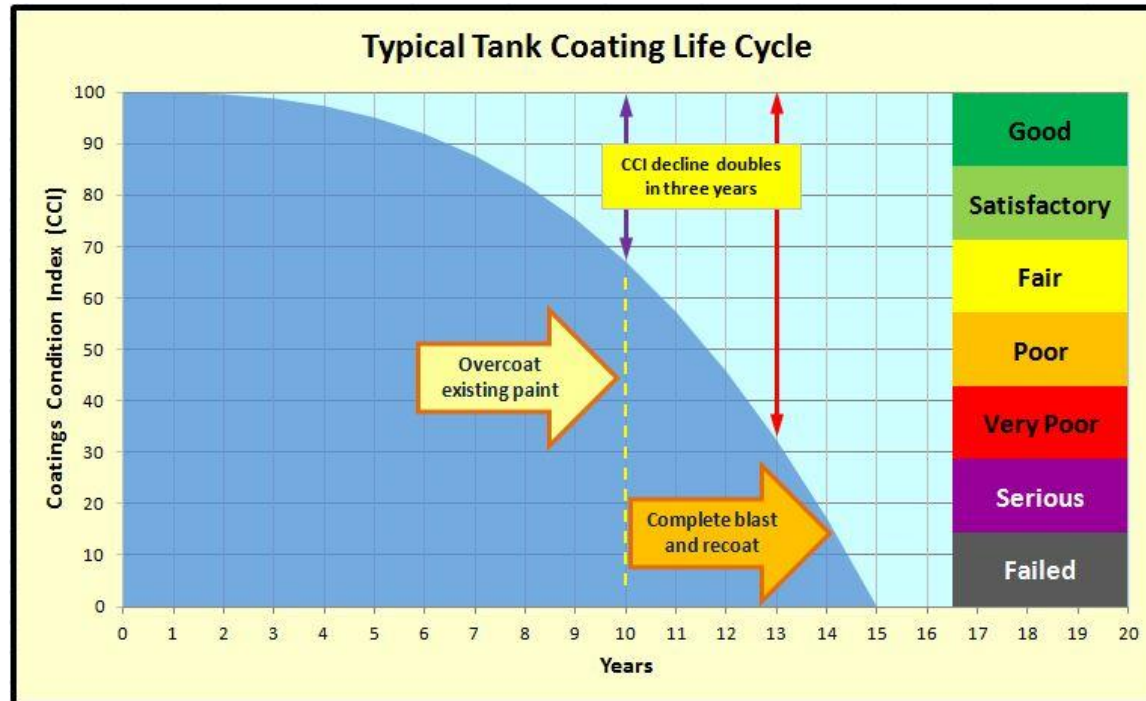
Typical design service life of 75+ years.

Given a practical maintenance schedule, the functional life can be extended indefinitely.



Water Tank Maintenance 101

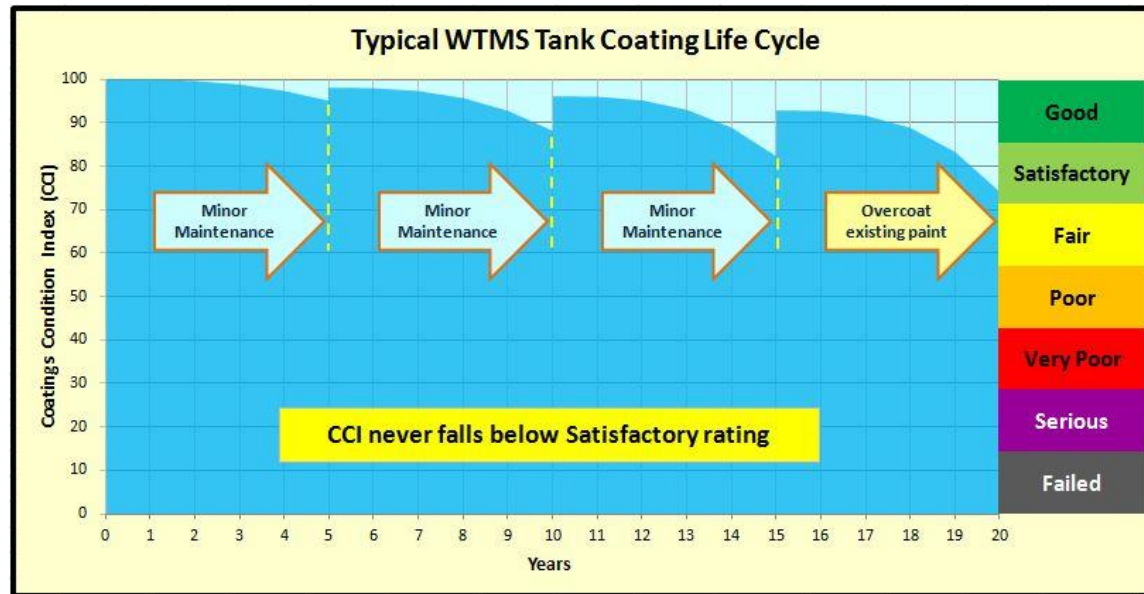
“Paint it and forget it...”



Desired coating life: 15-20 years

Water Tank Maintenance 101

Pro-active maintenance approach



Ongoing maintenance extends the duration between major rehabilitations projects.

Water Tank Maintenance 101

The Typical Approach
(design-bid-build)

A Different Approach
(maintenance contract)

How do the two methods compare?

The Typical Approach (*design-bid-build*)

A Different Approach (*maintenance contract*)

Preliminary tank inspection			Included
Inspection report			Included
Identification of project scope			Included
Construction plans/work orders			Included
Project specifications			Included
Project cost identification			Locked, not an estimate

How do the two methods compare?

The Typical Approach (*design-bid-build*)

A Different Approach (*maintenance contract*)

Bidding assistance		 Not necessary
Final project cost		 Total cost locked from onset
Project contractor		 Pre-determined
Contractor experience		 References available
Contractor safety record		 Ability to research record
Tank inspection and oversight		 Included

How do the two methods compare?

The Typical Approach (*design-bid-build*)

A Different Approach (*maintenance contract*)

Warranty on workmanship	1-2 years	✓	Up to 10 years
Final invoice	Due at completion	✓	Spread costs over contract
Routine tank maintenance	\$	✓	Included
Annual inspections	\$	✓	Included
Cleaning and touch-up	\$	✓	Included

What's right for Brighton?

- Compliance with CDPHE sanitary survey
- Quarterly inspection protocol
- NACE/CWI-certified inspection staff
- Significant rehabilitation needs on existing storage facilities
- Budgeted repair costs on 8.3 MG tank exceed \$3.0M alone
- Spread out the rehabilitation costs for all three tanks
- Provision of a one-stop-shop for all potable tank needs

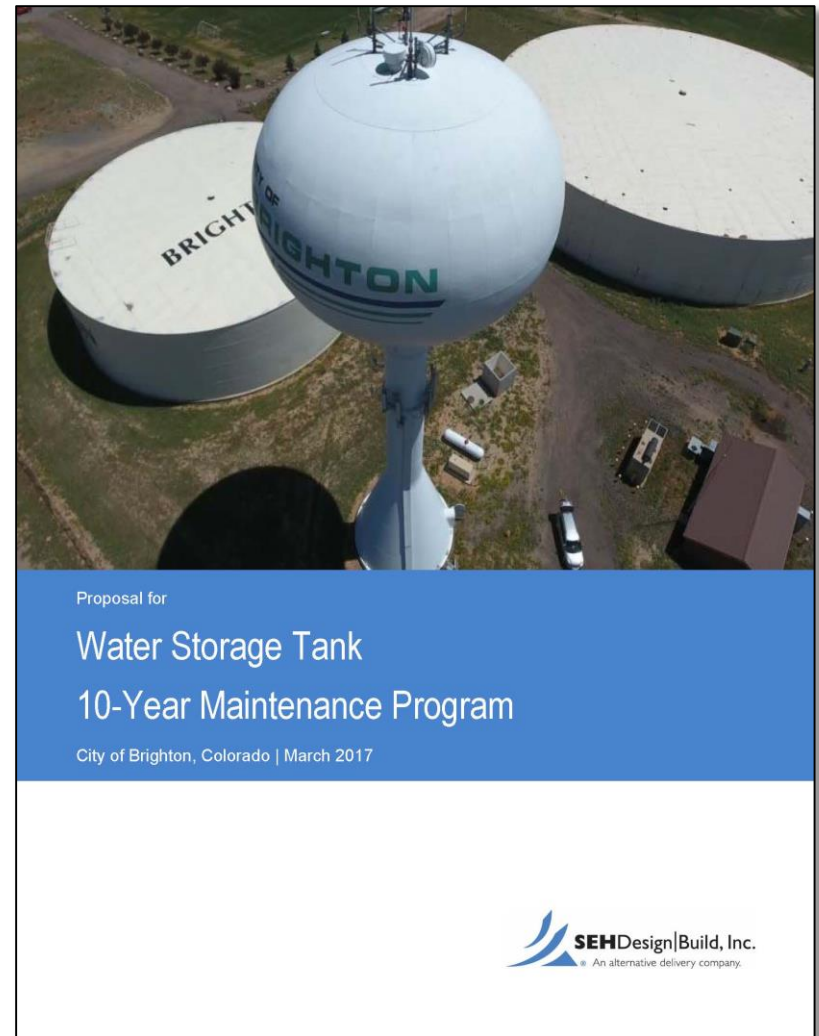


COLORADO
Department of Public
Health & Environment



Tank Maintenance Proposal

- Up-to-date and compliant with CDPHE, AWWA and OSHA requirements
- Proactive protection of your water storage facilities
- Extend functional life and push out capital replacement costs
- Comprehensive 10-year maintenance and warranty
- Flexible payment terms
- All at a competitive price



Other Questions



Jason P. Sprague
SEH Design|Build
jsprague@sehinc.com
612.217.4420

Thank you!