

CASE STUDY

TANK ASSET MANAGEMENT PROGRAM

TOWN OF NORTH LIBERTY, IN



Project Summary

Customer:

North Liberty Water Works | Town of North Liberty, IN

Type of Project:

Implementing a strategic tank asset management program provides peace of mind to a small single-tank community

Date: 2016



“Despite saving funds annually for maintenance, this small community couldn’t afford to get its water storage tank renovated for many years”

BEFORE



AFTER



North Liberty is a town of fewer than 2000 people located in Northern Indiana. Dubbed “A Great Place for Family and Business!”, the small but vibrant community was listed on the National Register of Historic Places in 2014 and named a participant in the state’s three-year Stellar Communities program in 2015. Subsequent grant-funded ‘stellar projects’ in North Liberty included the expansion of housing for seniors, the restoration of a downtown historic building facade and new equipment for local parks but no improvements to the town’s aging water infrastructure.

The water system consists of two water wells, a filter plant, a single elevated steel storage tank and a distribution system with approximately 700 connections. Like in so many older communities nationwide, North Liberty’s water infrastructure was slowly deteriorating. The water department historically set aside funds each year for maintenance, but the funds were saved annually until they were sufficient to do the minimum maintenance thought necessary at the time. In 2013, the town contracted an engineering firm to inspect and prepare a request for qualification for the maintenance of their storage tank. The bidding process generated multiple offers but all beyond the budget set aside by the water department. Town officials didn’t want to take on more debt so the tank rehabilitation was postponed. For three consecutive years, North Liberty went through the same process with no better luck.

“We are a small community with a water department of only four employees. To transfer the maintenance risk of a major component of our water system infrastructure to SUEZ was a big incentive” - Skip Davidson, Superintendent



An asset management alternative

In 2016, after conducting a visual inspection of the North Liberty water tank, Marc Hansen, water system consultant with SUEZ presented the town with an alternative approach, an innovative tank asset management program (Tank MP). Asset management is a framework that's being widely adopted as a means of achieving a sustainable water infrastructure. The concept is simple. A Municipality enters in a long-term agreement (up to 20 years) with a qualified professional to rehabilitate and maintain their water tank. After the initial rehabilitation, the Municipality transfers the responsibility of the annual inspection and maintenance of the asset to the professional who, in other words, assumes all maintenance risk for a set annual cost. Funds are also accrued annually for all future rehabilitations.

North Liberty town officials were immediately interested. *“The SUEZ asset management program (MP) had recently been presented at the town council of a neighboring community and we had heard good reviews”* explains Skip Davidson,

Utility Superintendent. *“We are a small community with a water department of only four employees”* adds Mr. Davidson so the fact that *“we could transfer the maintenance risk of a major component of our water system infrastructure to SUEZ was a big incentive. But being able to use private monies at no interest cost to fund the initial tank rehabilitation definitely sealed the deal”* concludes Mr. Davidson. The funds of the town were used instead to purchase and install an in-tank water mixer to maintain the quality of water during storage and prevent any ice damage during the winter months.

The 'no change order' clause, a big plus of SUEZ tank asset management program

The initial rehabilitation of North Liberty water storage tank started in 2016 and right away, an additional benefit of the SUEZ tank management program - a 'no change order' clause included in the contract - came to light. Upon starting the project, SUEZ field crews soon discovered that the logos on the tank were not painted but were actual decals that had been



glued to the steel structure. After trying unsuccessfully to remove the decals with heat guns, the SUEZ crews had to revert to using a water and garnet blaster. Although efficient, the technique can cause significant spillage especially when used on an elevated tank. The location of the tank further complicated the situation. The North Liberty water storage tank is indeed adjacent to the busy parking of an extrusion plant, the biggest employer in town. Given the site configuration, no containment system could be installed so the crews had to take extreme precautions and proceed with blasting the tank in batches, stopping whenever the wind was blowing in the wrong direction to avoid possible damage to the cars parked below. The laborious process took much longer than a regular power-wash but the Utility wasn't charged for the additional work and costs incurred to SUEZ without charging the customer additional fees.

“SUEZ stood by their word and didn't charge us for the change order” says Skip Davidson. *“Their tank asset management contract is a true peace of mind solution”.*

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