1-5

TOWNSEND WATER DEPARTMENT

540 Main Street West Townsend, Massachusetts 01474

Michael MacEachern, *Chairman* Niles Busler, *Vice-Chairman* Nathan Mattila, *Clerk*
Paul L. Rafuse, (978) 597-2212
Water Superintendent *Fax* (978) 597-5561

WATER COMMISSIONERS MEETING MINUTES

October 14, 2015 - 5:30P.M.

Water Department 540 Main Street, Meeting Room

APPROVED

I. PRELIMINARIES:

1.1 MM called the meeting to order at 5:35 p.m. 540 Main Street.

1.2 Roll call Showed Members Present: Michael MacEachern, Chairman, Niles Busler, Vice Chair and Nathan Mattila, Clerk. Guests Present: Scott Kelley, Utility Service Group. Paul Rafuse and Brenda Boudreau

1.3 MM announced that the meeting is being tape recorded

1.4 Chairman's additions or deletions. None

1.5 The Board approved meeting minutes of September 14, 2015. **NM moved to accept the minutes of September 14, 2015. NB seconded. Unanimous vote.**

1.6 The Board reviewed the correspondence.

II. APPOINTMENTS:

2.1 5:50 PM Scott Kelley, Consultant, Utility Service Group. Provide a brief presentation on storage tank asset management. Related to the quote submitted to the board at the last meeting. Scott presented his findings and recommendations for the Safety, Sanitary and Security of the water tanks, with a comprehensive maintenance plan. The Board thought that a lot of the work could be sourced out and would be less expensive.

III. MEETING BUSINESS:

3.1 Discuss/Vote on matter of Superintendent receiving compensation for "On Call" duty pending decision of Board of Selectmen on the 13th. **NM motioned agreeing to have the Chairman sign a letter requesting the Board to meet with the Selectmen to discuss options NB seconded. Unanimous vote.**

3.2 Approve adjustment to acct 60428, Townsend Annex Building, $.38 Late Charge RE: Added in Error. **NM motioned to approve adjustment for #60428, Townsend Annex Building .38 Late Charge. NB seconded. Unanimous vote.**

3.3 Approve adjustment to acct 60991, 32 Warren Road, $2.72, RE: Timing issue. **NM motioned to approve adjustment to acct 60991, 32 Warren Road, $2.72, RE: Timing issue. NB seconded. Unanimous vote.**

3.4 Approve Adjustments to various accts: 3350, 3.26-60606, 8.98-1821, .75-61533, 2.82 RE: Late charges added in error. **NM motioned to approve adjustments to various accts: 3350, 3.26-60606, 8.98-1821, .75-61533, 2.82 RE: Late charges added in error. NB seconded. Unanimous vote.**

IV. COMMISSIONERS UPDATES AND REPORTS.

4.1 NONE

V. WATER SUPERINTENDENTS UPDATES AND REPORTS.

5.1 Condition of main line pipe on Main St. in front of High School. Should be replaced from Harbor lights. Paul reported that the water main needs to be replace from the harbor lights to the high school. Paul will add to the Capital Plan in December to add a larger Main. The Board is reluctant due to the road was just repaved. Paul will get more information for next meeting

5.2 Work repair and upgrades at Witch's Brook Pumping Station # 1. Paul reported the work is ready to begin. We need to put the conduit in underground.

5.3 Cross St. Station. Paul reported Paul is sending out the samples to get a more accurate count of bacteria to better handle it. The cost will not exceed $1,300.00.

VI. OFFICE UPDATES AND REPORTS.

6.1 The Boars reviewed and signed Bills Payable Warrants.

6.2 The Board reviewed payroll.

6.3 The Board reviewed and signed September Schedule of Bills Receivable report.

6.4 Review September 2015 Accounts Receivable report. None

VII. ADJOURNMENT:

MM adjourned the meeting at 7:12p.m.

Submitted by Brenda Boudreau Date_____

TOWNSEND WATER DEPARTMENT

540 Main Street West Townsend, Massachusetts 01474

Michael MacEachern, *Chairman* Niles Busler, *Vice-Chairman* Nathan Mattila, *Clerk*

Paul L. Rafuse,
Water Superintendent

(978) 597-2212
Fax (978) 597-5561

WATER COMMISSIONERS MEETING AGENDA

October 14, 2015 - 5:30P.M.

Water Department 540 Main Street, Meeting Room

I. PRELIMINARIES:

1.1 Call the meeting to order and announce meeting address.
1.2 Roll call.
1.3 Announce that the meeting is being tape recorded
1.4 Chairman's additions or deletions.
1.5 Review/Approve meeting minutes of September 14, 2015**(SF)**
1.6 Review correspondence.

II. APPOINTMENTS:

2.1 5:50 PM Scott Kelley, Consultant, Utility Service Group. Provide a brief presentation on storage tank asset management. Related to the quote submitted to the board at the last meeting.

III. MEETING BUSINESS:

3.1 Discuss/Vote on matter of Superintendent receiving compensation for "On Call" duty pending decision of Board of Selectmen on the 13th.
3.2 Approve adjustment to acct 60428, Townsend Annex Building, $.38 Late Charge RE: Added in Error.
3.3 Approve adjustment to acct 60991, 32 Warren Road, $2.72, RE: Timing issue.
3.4 Approve Adjustments to various accts: 3350, 3.26-60606, 8.98-1821, .75-61533, 2.82 RE: Late charges added in error.

IV. COMMISSIONERS UPDATES AND REPORTS.

4.1

V. WATER SUPERINTENDENTS UPDATES AND REPORTS.

5.1 Condition of main line pipe on Main St. in front of High School. Should be replaced from Harbor lights.
5.2 Work repair and upgrades at Witch's Brook Pumping Station # 1
5.3 Cross St. Station

VI. OFFICE UPDATES AND REPORTS.

6.1 Review and Sign Bills Payable Warrants.
6.2 Review payroll.
6.3 Review and sign September Schedule of Bills Receivable report **(SF)**
6.4 Review September 2015 Accounts Receivable report.

**** (SF) signature folder**

VII. ADJOURNMENT:

2.1

Utility Service Group
Scott Kelley, Water Systems Consultant
843 North Barnstead Rd
Center Barnstead, NH 03225
603-724-8226
skelley@utilityservice.com

Fitchburg Road Tank
500,000 Gallon Ground Storage Tank
Condition Assessment Report

Townsend Water Department, Townsend, MA

Prepared For:
Paul Rafuse
Superintendent
Townsend Water Department
50 Main Street, Townsend, MA 01474

Assessment Performed October 27, 2014

TANK DATA

TANK NAME:	Fitchburg Road Tank				
TANK DESIGN:	GST	**CONSTRUCTION TYPE:**		Riveted Steel	
LOCATION:	105 Fitchburg Road				
	CITY:	Townsend		**STATE:**	MA
CAPACITY:	500,000 gallons	**HEIGHT:**	35'	**DIAMETER:**	50'
BUILDER:	NA	**YEAR:**	NA	**CONTRACT #**	N/A
EXT. COATING:	Alkyd	**LEAD:**	1300 mg/kg	**CHROMIUM:**	9.7 mg/kg
INT. COATING:	Epoxy	**LEAD:**	280 mg/kg	**CHROMIUM:**	88 mg/kg
INSPECTOR(S):	MA Service Center		**DATE:**	October 27, 2014	

SUMMARY

Neither the exterior or interior surfaces of the subject tank require any immediate remediation in order to preserve the structural condition of the tank. The existing coatings are continuing to provide an adequate level of protection to their respective surfaces and should continue to do so for at least an additional 3-4 more years without any significant progression in metal loss of already exposed substrate surfaces. It is therefore recommended that the subject be re-inspected in late 2017 in order to reassess prevailing conditions at that time for probable establishment of a maintenance schedule and detailed scope of work to be performed. There are however some issues regarding the sanitary condition of the tank as well as its potential functionality as outlined below.

STRUCTURAL RECOMMENDATIONS

The tank is currently not equipped with a finial vent assembly. The existing finial ball is sealed, with no venting capabilities, furthermore there is no designed venting along the roof to shell junction. Instead, venting for the tank appears to be achieved through the random narrow gaps along the unfitted roof to shell junction as well as the overflow pipe. AWWA D-100 standards state that tanks will be equipped with a vent located above the total capacity level and properly sized to allow for adequate airflow during maximum flow of water in or out of the subject tank without allowing excessive pressure to develop. The standard states that the overflow pipe shall not be considered a vent. Even though the existing configuration has adequately served the tank to date without any known or apparent consequences, a substantial draw such as a main break could cause excessive pressure to develop, which in turn could cause damage to the roof, roof support structure and possibly to the shell. Therefore, consideration should be given to replacing the existing finial ball assembly with a properly sized freeze/vacuum resistant finial vent assembly to ensure compliance with AWWA standards and current MA Chapter 8 Guidelines. If and when the finial vent is installed it will require that the existing roof revolving ladder be detached from the existing finial ball and ideally welded into a stationary position by welding a series of vertical standoffs to the roof and side rails of the ladder. The estimated cost for this work would be $8,600.00

SANITARY RECOMMENDATIONS

There are several open penetrations through the roof of the tank that could potentially pose risk to the sanitary condition of the water supply. The oversized bolt holes along the base of the roof's center final ball as well as the (3) missing rivet heads along the roof center plate peripheral lap seam could, and currently do, provide a potential passageway for rain runoff to enter the interior of the tank. Even though these conditions appear to have existed since the construction of the tank and there has been no known situation in which these penetrations have contributed to the contamination of the water supply, the risk still exists. Therefore consideration should be given to sealing these areas with an elastomeric caulking. The estimated cost for this work would be $500.00

WATER STORAGE TANK CONDITION ASSESSMENT REPORT

Utility Service Group
Merithew Service Center
128 Elm St Bridgewater MA 02324
508-279-9965 Fax: 508-279-9948

Date: 10/27/14	**Project:** 130976	**Task:** 1.01			
Tank Name: Fitchburg Rd Tank					
Address: 105 Fitchburg Rd	**City:** Townsend	**State:** MA			
County: Middlesex	**Lat:** 42.55	**Long:** 71.76			
Capacity: 500,000 **gallons**	**Tank Type:** GST	**Construction:** Riveted Steel		**Tank ID Plate:** No	
Height: 35' shell	**Diameter:** 50'	**Yr Built:** NA	**By:** NA	**Contract:** NA	
Exterior Last Painted: NA	**Exterior Color:** Light blue	**Interior Last Painted:** NA		**Interior Color:** White	

Exterior Roof Conditions: All questions are Yes / No / NA / NR unless listed (G/F/P) for Good / Fair / Poor / NA / NR

Tank Area	Item of Concern	Status	Comments
Roof Coating	Coating visual assessment? (G/F/P)	Good	**Coating Type:** Alkyd **Lead Bearing:** Yes **DFT:** 7.4-20.2 mils The coatings along the roof are in good condition with at least 98.5% of the coating intact and providing an adequate level of protection. The remaining surfaces are exhibiting scattered areas of cracked and delaminated coating resuting in the exposure of the base coat of primer and/or the steel substrate, which is currently exhibiting light to medium rusting. The majority of this deterioration is along the roof lap seams and surfaces immediately adjacent to the seams. The finish coat is also heavily weathered resulting in minor surface degradation, and the surfaces are heavily chalked and soiled.
	Actionable checking / delamination?	Yes	
	Actionable corrosion / deterioration?	Yes	
	Is there any graffiti paint or etchings?	No	
	Coating adhesion assessment? (G/F/P)	Good	
	Does soiling impact visual appearance?	No	
	Will antenna equipment impact recoat?	No	
Roof Structure	Structural visual assessment? (G/F/P)	Good	The roof appears to be in good structural and sanitary condition with no significant metal loss or fatigue observed, however there are a few small holes due to missing rivets along the perimeter of the center dollar plate and unsealed gaps in the bolting holes which secure the base of the finial ball to the center of the roof. The outer perimeter of the roof is not sealed to the shell rim angle. There is a slight gap 1/4" to 1/2" in width along the entire perimeter of the roof which helps to serve as venting for the tank.
	Are all plate seams sealed?	NA	
	Significant pitting or metal loss visible?	No	
	Rigging holes / access ports sealed?	NA	
	Other unsealed penetrations present?	Yes	
	Is the roof perimeter watertight?	No	
Roof Vent	Design meets state standards?	No	**Finial Stub OD:** NA The roof is not equipped with a finial vent assembly, the finial ball serves only as a pivot point and support for the roof revolving ladder. There is a cutout located within the top of the vent that is used for rigging purposes however this cutout is currently sealed with a plug assembly. It appears that the overflow pipe and the unsealed roof/shell perimeter junction serves as the venting for the tank which conflicts with current state standards.
	Screen intact?	NA	
	Vacuum pallet functional?	NA	
	Unsealed penetrations present?	No	
Roof Access	At least two hatches to WC present?	No	The roof is equipped with a single roof hatch with a cover that sits flat to the roof and appears in sound structural condition and is equipped with a working lock. The hatch does not meet current state standards as it does not have a raised neck or frame to prevent rain runoff from entering.
	Primary meets state standards?	No	
	Additional meet state standards?	NA	
	All roof access points secured?	Yes	
	Antenna equipment affects roof entry?	No	
Roof Safety	Is there a roof ladder / stair present?	Yes	The roof is equipped with a rolling ladder that is attached to the neck of the finial ball. The ladder appears intact, structurally sound and in functional condition. The center pivot point (finial ball) also appears intact and structurally sound at least as viewed from the exterior of the tank. The coating along the ladder assembly is in generally fair to good condition with the exception of scattered areas of cracked and delaminated coating along a number of ladder rungs. This deterioration has resulted in the exposure of the steel surfaces and medium to heavy surface rusting.
	Is there a guardrail system present?	No	
	Required fall arrest system present?	No	
	Are the roof FAA lights operational?	NA	

Exterior Shell Conditions: All questions are Yes / No / NA / NR unless listed (G/F/P) for Good / Fair / Poor / NA / NR

Tank Area	Item of Concern	Status	Comments
Shell Coating	Coating visual assessment? (G/F/P)	Fair	**Coating Type:** Alkyd **Lead Bearing:** Yes **DFT:** 6.1-12.6 mils The coatings along the shell surfaces are in generally very good condition with at least 98% of the coating still intact and providing sound protection to the underlying steel surfaces. The remaining surfaces are exhiting minor stone damage which has chipped away the coatings at point of impact, resulting in medium to heavy rusting, as well as areas of topcoat delamination resulting in the exposure of the base coat of primer which was noted to still be intact with minimal degradation observed. The majority of this delamination was found along the bottom few inches of the shell, just above the foundation. There was also a significant amount of rust staining along the top shell ring which appeared to be eminating out from the unsealed junction of the roof and shell. Testing of the exterior shell coatings revealed 13,000ppm of lead and 9.7ppm of chromium as shown on the attached laboratory report.
	Actionable checking / delamination?	Yes	
	Actionable corrosion / deterioration?	Yes	
	Logo visual assessment? (G/F/P)	NA	
	Is there any graffiti paint or etchings?	No	
	Coating adhesion assessment? (G/F/P)	Fair	
	Does soiling impact visual appearance?	Yes	
	Will antenna equipment impact recoat?	No	
Shell Structure	Structural visual assessment? (G/F/P)	Good	The tank is comprised of (5) shell rings riveted together. The shell plates, as well as the lap seams and rivets, appeared to be in sound structural condition with no evidence of any aggressive corrosion, active metal loss or leaks present. There is evidence of previous metal loss in the form of surface pitting however these areas are currently protected by the existing coating, therefore there is no furtherance in metal loss taking place at this time.
	Are all plate seams sealed?		
	Significant pitting or metal loss visible?	No	
	Unsealed penetrations present?	No	
	Floor plate extension condition? (G/F/P)	NA	
	Any active leakage observed?	No	
	Painter's angle or rigging rail present?	No	
Foundation	Structural visual assessment? (G/F/P)	Good	The concrete ringwall appears to be in good condition with the exception of surface erosion which has resulted in the exposure of some of the larger aggregate as well as one localized area of cracked and spalled concrete. This deterioration is adjacent to a previously repaired area which is currently exhibiting some cracking and spalling of the patching material. There are no anchor bolt assemblies present along the base of the tank.
	Anchor bolt corrosion / separation?	NA	
	Grout or sealer in sound condition?	Yes	
	Does grade promote good drainage?	Yes	
	Failure or undermining of foundation?	No	
Shell Access	At least two manholes present?	Yes	The shell is equipped with (2) 18"x24" oval manways each with internally placed covers secured by (2) retention clamp and bolt assemblies. One is original to the tank based on its riveted design while the second was added later based on its welded design. Both manways meet state standards and are in sound structural condition with no signs of leaks. The coatings along both are in generally good condition with minimal degradation and rusting currently taking place however the surfaces of both are heavily coated with mildew.
	Primary meets state standards?	Yes	
	Additional meet state standards?	Yes	
	Structural damage / leakage visible?	No	
Shell Safety	Required shell ladder present?	Yes	**Safety Climb Type:** Flex Cable The shell ladder is equipped with a safety cage, flexible cable fall prevention device, and a locked anticlimb gate. The referenced items are in sound condition with no significant deterioration occurring at this time. The coatings along the ladder and cage assembly are also in fair to good condition with only minor areas of degradation and rusting taking place at this time. The bottom 6' of the ladder cage is also wrapped in a small mesh fencing material in order to prevent access through the side of the ladder cage.
	Required safety climb system present?	Yes	
	Is shell ladder equipped with a cage?	Yes	
	Are there rest platforms present?	No	
	Actionable corrosion / deterioration?	No	
	Functional security gate present?	Yes	
	Do antennas / cables impact climbing?	No	
Overflow	Extends to near ground level?	Yes	**Pipe OD:** 4" ID The overflow pipe appears to be intact and in good structural and sanitary condition. The coatings however are exhibiting localized areas of cracking and delamination which has resulted in the exposure of the steel substrate and light to medium rusting along at least 35% of the pipe surfaces, as well as the top and bottom 90° elbows. There is also areas of cracked and delaminated coating along the shell surfaces surrounding one of the pipe support brackets. The discharge opening of the overflow pipe is equipped with an intact screen
	External weir box sealed / secured?	NA	
	Actionable corrosion / deterioration?	No	
	Unsealed penetrations present?	No	
	Required air gap present?	NA	
	Screen is intact or was replaced?	Yes	
	Flapper is functional or was replaced?	NA	

	Drain, spillway or rip-rap present?	Yes	over a larger metal screen and discharges between 12"-24" above grade onto a small area of riprap.

Interior Roof Conditions: All questions are Yes / No / NA / NR unless listed (G/F/P) for Good / Fair / Poor / NA / NR

Tank Area	Item of Concern	Status	Comments
Roof Coating	Coating visual assessment? (G/F/P)	Good	**Coating Type:** Epoxy **Lead Bearing:** No **DFT:** 6.6-19.4 mils The coatings along the underside of the roof and the roof rafters were found to be in generally good condition with at least 98% of the coatings still intact and providing adequate protection to the referenced surfaces. The remaining surfaces were exhibiting scattered areas of failure to the substrate and light to medium rusting primarily along lap seams, rivets and junctions between the roof plates and rafters. There are also additional areas of medium to heavy rusting scattered on the webs and bottom flanges of the rafteres, as well as the ends of the stabilizer rods and the bolted connections of the center compression ring. The greatest degree of coating failure and subsequent rusting was along the outer perimeter retention bolts and J-bolt assemblies, as well as the top face of the shell rim angle with at least 35% of these surfaces affected. Testing of the interior shell coatings revealed 280ppm of lead and 88ppm of chromium as shown on the attached laboratory report.
	Actionable blistering / delamination?	No	
	Actionable corrosion / deterioration?	Yes	
	Coating adhesion assessment? (G/F/P)	Good	
	Rafter visual assessment? (G/F/P)	Good	
	Roof to shell junction? (G/F/P)	Poor	
Roof Structure	Structural visual assessment? (G/F/P)	Good	The underside of the roof plates as well as the rafters appear to be in good structural condition with no significant metal loss observed. All bolted connections observed from the roof hatch appeared sound, however scattered bolts along the outer roof perimeter as well as the J-bolt assemblies were exhibiting at least slight to moderate metal loss along the retention nuts. The sanitary condition of the roof appeared to be good however there was evidence of light leaks along the point of attachment for the finial ball and along a few areas of roof plates caused by missing rivets. These areas could permit runoff from the roof to enter the water chamber however there was no evidence to suggest that this has been an issue in the past.
	Are all plate seams sealed?	NA	
	Significant metal loss on plates visible?	No	
	Significant metal loss on rafters visible?	No	
	Roof bolted connections sound?	Yes	
	Light leaks visible from the interior?	Yes	

Interior Shell & Floor Conditions: All questions are Yes / No / NA / NR unless listed (G/F/P) for Good / Fair / Poor / NA / NR

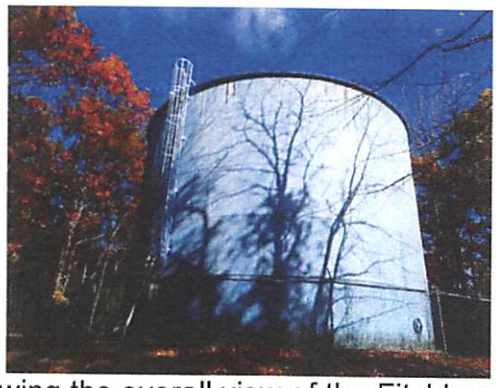
Tank Area	Item of Concern	Status	Comments
Shell & Floor Coatings	Coating visual assessment? (G/F/P)	Good	**Coating Type:** Epoxy **Lead Bearing:** No **DFT:** NR The coatings along the shell surfaces were found to be in very good to excellent condition with at least 99% of the coatings still intact and providing sound protection to the underlying steel surfaces. The remaining surfaces are exhibiting isolated areas of medium to heavy rusting primarily along expansion joints of the fissure plates as well as extremely isolated areas of lap seams and rivets.
	Actionable blistering / delamination?	No	
	Actionable corrosion / deterioration?	Yes	
	Coating adhesion assessment? (G/F/P)	NR	
Shell & Floor Structure	Structural visual assessment? (G/F/P)	Good	The interior shell appear to be in good structural condition with no immediate concerns observed. There are however a few isolated areas of large tubercle formations which would suggest the probability of at least slight metal loss in the form of pitting. These areas should be periodically monitored. There is also evidence of widespread pitting from past corrosive activity however these areas as well as the large majority of all lap seams and rivet heads are still affectively sealed by the existing coating system. The shell to floor junction appears to be good however the majority of these surfaces were obscured by sediment.
	Are all plate seams sealed?	Yes	
	Significant pitting or metal loss visible?	No	
	Column or wall conditions? (G/F/P)	Good	
	Shell to floor junction? (G/F/P)	Good	
	Fill line opening in sound condition?	Yes	
	Is there a silt stop present?	Yes	
	Is a separate floor drain present?	No	
Shell Safety	Is an interior shell ladder present?	No	**Safety Climb Type:** NA The interior of the tank is not equipped with an access ladder nor is one required or recommended.
	Required safety climb system present?	NA	
	Actionable corrosion / deterioration?	NA	
	Internal balcony or platform present?	No	

Water Quality	Water quality visually acceptable?	Yes	There is a 1/8"-2" layer of sediment which covers 99% of the floor surfaces affectively impeding visual assessment of the underlying surfaces. Localized areas were cleared of the sediment by the ROV and the tops of the rivet heads were readily visible along most surfaces. The coatings along these visible surfaces were found to be in good condition with no appreciable deterioration or rusting observed. Furthermore there was no evidence of any significant coating failure or rust tubercle formations protruding up through the silt.
	Significant staining or biofilm present?	Yes	
	Significant floor sediment present?	No	
	Is there a mixing system present?	No	
	Is there a cathodics system present?	No	
	Is there a level indicator present?	No	

Site Conditions: All questions are Yes / No / NA / NR unless listed (G/F/P) for Good / Fair / Poor / NA / NR

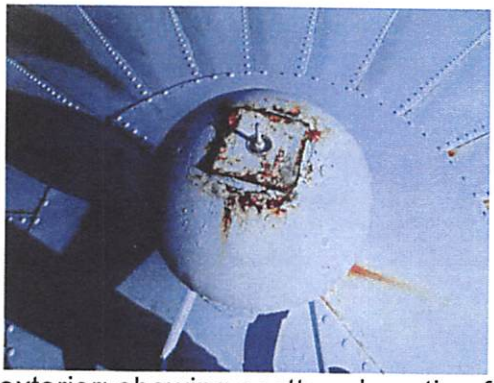
Tank Area	Item of Concern	Status	Comments
Site	Is site equipped with a security fence?	Yes	The tank is surrounded by a perimeter fence which appears intact and serving as an effective deterrent base on the fact that there is no graffiti or any other signs of unauthorized access. The room within the confines of the fenced perimeter is limited, however additional space is available for a stagging area along the access road. There is a valve vault located at the base of the tank which is equipped with a hinged, lockable steel door. The coatings along the piping located within the vault are in fair to poor condition with extensive failure to the substrate and subsequent rusting taking place. The vault was free of standing water at the time of this inspection. SCADA is reportedly being installed by the 1st of the year. The sample tap is an acceptable threadless design and it appears to be functional.
	Any signs of damage to the fence?	No	
	Are fence gates secured with locks?	Yes	
	Is a vault or pump house present?	Yes	
	Sample tap onsite?	Yes	
	Is there telemetry / SCADA onsite?	No	
	Is there non-tank pooling water onsite?	No	
	Is there electrical service onsite?	Yes	
	Are there power lines near the tank?	No	
	Is there a non-tank water source onsite?	Yes	
	Is the tank located in a coastal area?	No	
	Site utility during tank rehab (G/F/P)?	Fair	

Fitchburg Rd 500,000 Gallon GST
Inspection Performed October 27, 2014

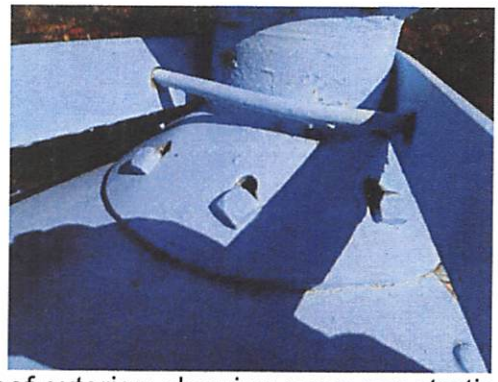


Showing the overall view of the Fitchburg Rd 500KG GST in Townsend, MA.

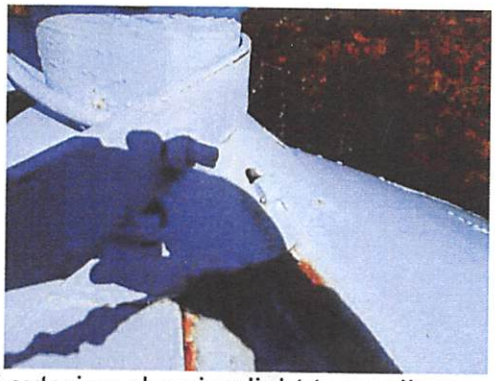
Roof exterior: showing center of roof fitted with a finial ball that does not function as a roof vent.



Roof exterior: showing scattered coating failure and rusting along top of finial ball and its rigging port.



Roof exterior: showing open penetrations resulting from slotted bolting holes at the base of the finial ball.



Roof exterior: showing light to medium rusting along the base of the finial ball.

Roof exterior: showing finial ball connection to roof to be visually acceptable at least as viewed from the exterior of the tank.

Fitchburg Rd 500,000 Gallon GST
Inspection Performed October 27, 2014

Roof exterior: showing open penetrations resulting from slotted bolting holes which appears to penetrate to inner surfaces.

Roof exterior: showing hatch cover equipped with a locking hasp and lock which was secured in place prior to and after inspection.

Roof exterior: showing existing hatch does not meet current state standards however is intact and functional.

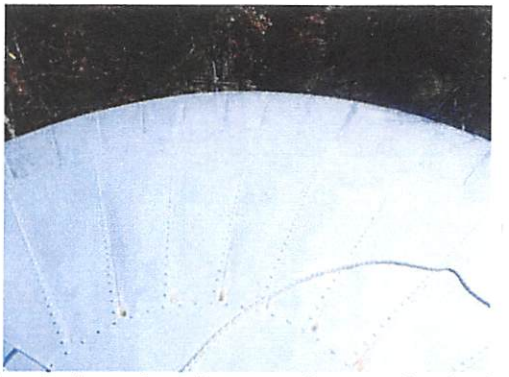
Roof exterior: showing rolling revolving ladder is securely attached to the finial ball.

Roof exterior: showing bottom section of roof ladder equipped with the wheel assembly which is functional.

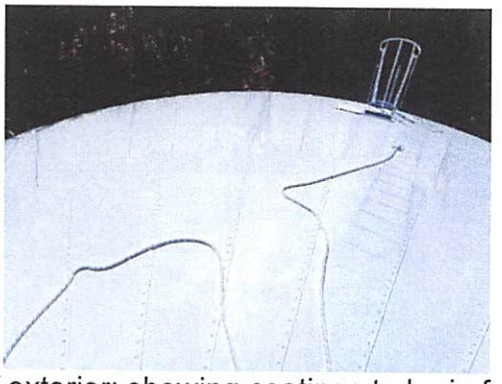
Roof exterior: showing revolving ladder to be intact and in good structural condition.

Fitchburg Rd 500,000 Gallon GST
Inspection Performed October 27, 2014

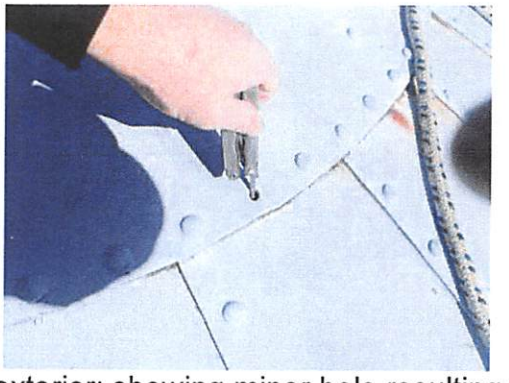
Roof exterior: showing coatings to be heavily chalked and moderately soiled in areas.



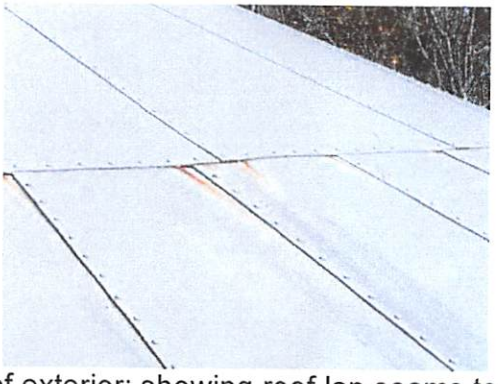
Roof exterior: showing coatings to be in fair to good condition with only minor degradation and localized rusting taking place.



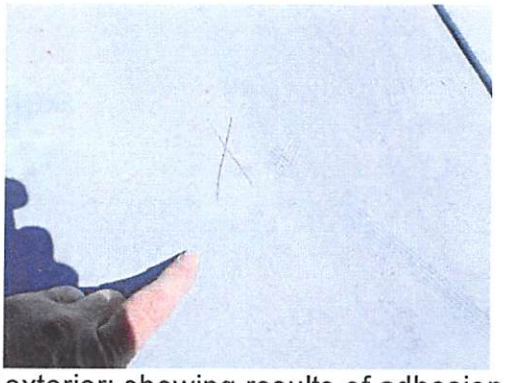
Roof exterior: showing coatings to be in fair to good condition with only minor degradation and localized rusting taking place.



Roof exterior: showing minor hole resulting from a missing bolt along the outer perimeter of the center dollar plate.



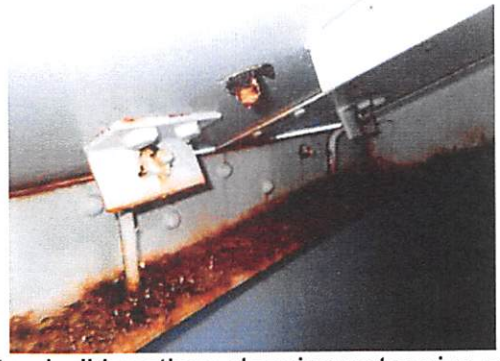
Roof exterior: showing roof lap seams to be generally tight with no open penetrations observed.



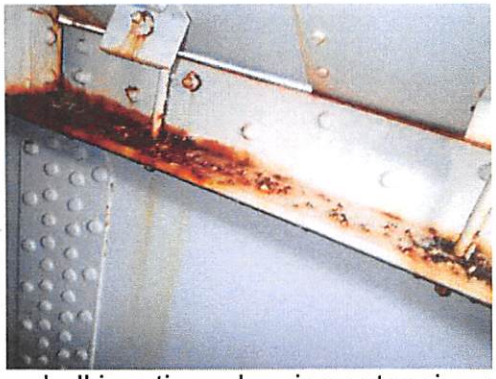
Roof exterior: showing results of adhesion test indicating good adhesion at all interfaces.

Fitchburg Rd 500,000 Gallon GST
Inspection Performed October 27, 2014

Roof to shell junction: showing heavy rusting and slight metal loss along retention bolts and J-bolt assemblies.

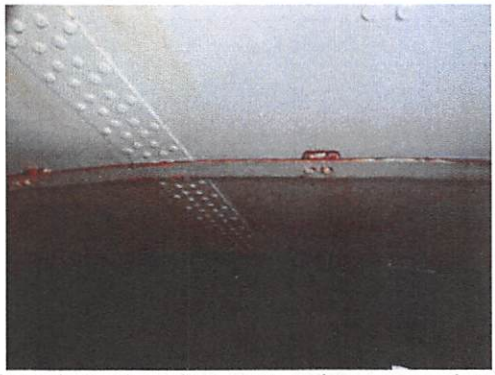


Roof to shell junction: showing extensive coating failure and heavy rusting along top face of rim angle and J-bolt assemblies.



Roof to shell junction: showing extensive coating failure and heavy rusting along top face of rim angle and J-bolt assemblies.

Roof to shell junction: showing slight gaps between shell wall and roof plates along entire perimeter



Shell interior: showing extensive corrosion along edges of painter's rail, its support brackets and bolted connections.

Shell interior: Shows the interior painters angle as viewed from the ROV.

3.1

10/14/2025

PREPARED BY
DATE

Is there any Action Required by the Board of Water Comm. that could expedite the matter to Resolve ~~the~~ the our water Superintendent to receive his on Call Pay.

MM

WATER DEPARTMENT MEETING

DATE: **October 14, 2015**

NAME	ADDRESS	PH/EMAIL
Scott Kelley Utility Service Group	24 Fedora Rd Bertrand MT	603-724-8226

THE FOXBORO REPORTER
EDITION
foxbororeporter.com

NEWS

Grand opening for Hill Street water tank

Repairs begin as water restrictions take effect

By Frank Mortimer

Published: Thursday, April 30, 2015 10:03 AM EDT

Print Page

Workers have just stated to rehabilitate the 50 years old Hill Street water tank.

Workers last Sunday cut a garage-door-sized opening in the drained 3 million gallon water tank atop Hill Street, kicking off a major repair that calls for your compliance with tough water restrictions this spring and summer.

Build in 1962, the tank's purpose is to store water and provide pressure to the system.

"This year will be especially challenging while the Hill Street tank is being rehabilitated," water superintendent Bob Worthley wrote in a public notice last week.

Starting tomorrow (May 1), tighter mandatory water restrictions will be in effect. No non-essential outdoor water use is allowed from 9 a.m. to 5 p.m.

"This tank has serious problems and has not been rehabbed for 28 years," DPW director Roger Hill wrote in an email. The work, being done by Utility Service Corp., will take about 2-1/2 months to complete.

The town has entered into $1.47 million contract for 15 years of maintenance of the tank, including two full rehabilitations.

"If we did this with two rehabs separated by fifteen years, the cost would have been in excess of $2 million, and we would still have had to retain all risk and responsibility," Hill said.

Nine companies expressed interest in the project, but Utility Service Corp. was the only one "that had a proven financial and track record of providing this service," Hill said.

The first step is metal work.

"They repair all rusted areas, eliminate extraneous old fittings, replace the bales (old access ports around the tank perimeter)and repair/replace the ladders," Hill said.

"To access the inside they cut an opening big enough to get their staging into the tank. Next they blast the inside and apply the new coating and install a new circulator. Finally they blast the outside and apply the coating. Then we refill it."

Faded white now, it will be green when completed.

The town has two other potable water tanks -- one off Main Street, one at Patriot Place -- each with a 1 million gallon capacity.

Town of Townsend MA Water Department

Fitchburg Rd 500KG Water Ground Storage Tank

Comparing Tank Asset Management to the Run to Failure Approach

Utility Service Group
24 Fellows Rd
Brentwood, NH 03833

July 14, 2015

Utility Service Group Service Center
128 Elm St
Bridgewater, MA 02324

Table of Contents

Report Purpose

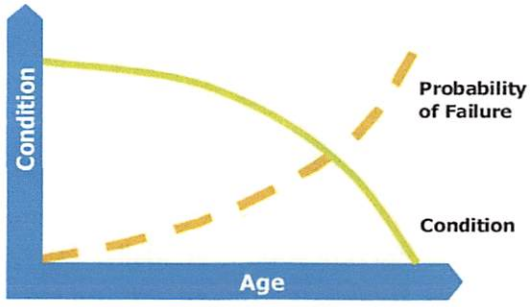
The purpose of this report is to demonstrate the benefits and advantages of a comprehensive tank maintenance asset management program when compared to the conventional approach of low bid.

State of the Nation

The state of the nation's infrastructure has been a growing concern. The American Society of Civil Engineers report card for America's infrastructure gave the water industry a D grade in 2013. While age is a contributing factor, the lack of maintenance, poor planning and the run to failure model has created a very reactive environment with significant cost repercussions when it is time to repair or replace.

Asset Management

Asset management has been deemed a viable solution to address the nation's infrastructure and establish sustainability of assets. Through practical asset management the water industry can maintain a desired level of service of assets at the lowest life cycle cost. Planning continuous condition assessment, proactive and preventative maintenance, the best appropriate rehabilitation and repairs at the right time ensures your critical assets will operate at peak performance. By applying asset management principles, water systems establish effective financial management, planned capital and operational expenses, lowest asset life cycle cost and sustainability. Comprehensive asset management planning offers risk management and avoids running assets to failure and the associated extraordinary financial implications.



Tank Maintenance & Asset Management Program

The Utility Service Group (USG) tank maintenance and asset management program was established in 1985 and applies the basic principles of asset management to effectively maintain and preserve tank assets at the lowest life cycle cost. The program is an agreement with USG and the tank owner for USG to provide risk mitigation and risk transfer as the single point tank professional that provides annual condition assessments, proactive and predictable maintenance, planned rehabilitation and repairs with a cost effective financial plan. USG services ensure the tank asset operates at optimal performance in order to provide a level of service that meets regulatory requirements and customer demand for the highest water quality.

Benefits of USG Program

There are many benefits of the USG tank maintenance and asset management program. Here are several examples that are realized by USG customers:

- Prolonged asset life making it available for future generations
- Meet consumer demands with a focus on sustainability
- Set rates based on sound operational and financial planning
- Budgets focused on activities critical to sustained performance
- Meet service expectations and regulatory requirements
- Improved response to emergencies
- Improved public and private perception of highly visible, critical system assets
- Supports water quality management while in storage with best practices
- Reduce overall costs for both operations and capital expenditures
- Risk management – sanitary, structure, security, safety, financial (USG assumes risk in year 1)

Experience

Established in 1963, USG is the largest tank maintenance and management firm in the nation and performs over 8,000 inspections and 1,300 renovations annually. Over 6,000 assets are maintained through USG programs. *Resumes, case studies, references, referral letters are available upon request.*

Scope of Work

Based on a professional evaluation of the asset condition, the following recommendations for tank rehabilitation are prescribed based on EPA, AWWA, OSHA and local regulatory guidelines. The five general categories for rehabilitation are safety, security, sanitary, structure and coatings.

Exterior Renovations

- EXTERIOR OVERCOAT - *recommended in 2015/2016*
  Hand and power tooling localized failure
  2 coats of TNEMEC coating system

Interior Renovations

- FULL INTERIOR RENOVATION - *recommended in 2015/2016*
  SP10 (near white) blast
  Pit fill/welding as needed
  Apply TNEMEC 100% solids coating system (see specification)

Repair Renovations

Sanitary Improvements

- Replace overflow screen and install flapper
- Seal vent holes on sidewall at roof plate juncture and repair holes on roof due to missing rivets

Safety Improvements

- Secure dome ladder in place
- Replace roof hatch with neck and new hatch
- Install 6' handrails on both sides of access ladder on roof
- Replace one manway with a 24" round bolted manway
- Install a flex cable safety climb on dome ladder

Security Improvements

- Install an 8' aluminum access ladder gate

Structural Improvements

- Install dual chamber frost/insect proof vent

Service Schedule

Based on over 50 years of experience, USG is prescribing the following service schedule for the Fitchburg Rd tank. These services offer the necessary predictable, preventative and proactive maintenance to effectively preserve the tank at the lowest life cycle cost. In order to manage risk and ensure the tank is operating at best level of service, the condition assessments, cleaning, maintenance and coating schedule are recommended. The schedule demonstrates annual services over a 15 year period with an optional 5 year extension option. Per MA law the agreement is a maximum of 15 years with the option of renewing for 5 more. The additional 5 years allows for the continuation of services, risk mitigation, warranty and provides opportunity to plan for the year 20 renovation.

Service Schedule

Year 1 - 2016	Year 2 - 2017	Year 3 - 2018	Year 4 - 2019	Year 5 - 2020	Year 6 - 2021	Year 7 - 2022
Full tank renovation Repairs Risk transfer	Visual inspection Condition report Coating management Repairs as required Emergency service Warranty Portal to data GASB34 value Risk mitigation	ROV inspection Condition report Coating management Repairs as required Emergency service Warranty Portal to data GASB34 value Risk mitigation	Visual inspection Condition report Coating management Repairs as required Emergency service Warranty Portal to data GASB34 value Risk mitigation	BIOFILM washout Condition report Coating management Repairs as required Emergency service Warranty Portal to data GASB34 value Risk mitigation	Visual inspection Exterior pressure wash Condition report Coating management Repairs as required Emergency service Warranty Portal to data GASB34 value Risk mitigation	ROV inspection Condition report Coating management Repairs as required Emergency service Warranty Portal to data GASB34 value Risk mitigation

Year 8 - 2023	Year 9 - 2024	Year 10 - 2025	Year 11 - 2026	Year 12 - 2027	Year 13 - 2028	Year 14 - 2029
Visual inspection Condition report Coating management Repairs as required Emergency service Warranty Portal to data GASB34 value Risk mitigation	ROV inspection Condition report Coating management Repairs as required Emergency service Warranty Portal to data GASB34 value Risk mitigation	Exterior overcoat BIOFILM washout Condition report Coating management Repairs as required Emergency service Warranty Portal to data GASB34 value Risk mitigation	Visual inspection Condition report Coating management Repairs as required Emergency service Warranty Portal to data GASB34 value Risk mitigation	ROV inspection Condition report Coating management Repairs as required Emergency service Warranty Portal to data GASB34 value Risk mitigation	Visual inspection Condition report Coating management Repairs as required Emergency service Warranty Portal to data GASB34 value Risk mitigation	BIOFILM washout Condition report Coating management Repairs as required Emergency service Warranty Portal to data GASB34 value Risk mitigation

Year 15 - 2030	Renewal option	Year 16 - 2031	Year 17 - 2032	Year 18 - 2033	Year 19 - 2034	Year 20 - 2035
ROV inspection Exterior pressure wash Condition report Coating management Repairs as required Emergency service Warranty Portal to data GASB34 value Risk mitigation	Negotiate next interior renovation and exterior overcoat and spread costs over additional 5 years under renewal option.	Visual inspection Condition report Coating management Repairs as required Emergency service Warranty Portal to data GASB34 value Risk mitigation	ROV inspection Condition report Coating management Repairs as required Emergency service Warranty Portal to data GASB34 value Risk mitigation	Visual inspection Condition report Coating management Repairs as required Emergency service Warranty Portal to data GASB34 value Risk mitigation	ROV inspection Condition report Coating management Repairs as required Emergency service Warranty Portal to data GASB34 value Risk mitigation	Exterior overcoat Interior touchup Repairs as required Emergency service Warranty Portal to data GASB34 value Risk mitigation

Pricing and Fees

USG offers fair and competitive pricing for services. Under the tank maintenance and asset management program, USG offers the benefit of spreading the initial upfront renovation (UR) costs over several years. After the renovation cost is paid, an annual base fee is applied for ongoing services, maintenance, future renovations and warranty. The following illustrates a financial plan available for the Fitchburg Rd tank:

USG Program Pricing Schedule over 15 Years - with 5 year renovation spread

YEAR	PAYMENT	Description
1	$ 101,809	UR payment (1 of 5)
2	$ 101,809	UR payment (2 of 5)
3	$ 101,809	UR payment (3 of 5)
4	$ 101,809	UR payment (4 of 5)
5	$ 101,809	UR payment (5 of 5)
6	$ 20,296	Annual base program fee
7	$ 21,015	Annual base program fee
8	$ 21,759	Annual base program fee
9	$ 22,529	Annual base program fee
10	$ 23,327	Annual base program fee
11	$ 15,009	Annual base program fee
12	$ 15,540	Annual base program fee
13	$ 16,090	Annual base program fee
14	$ 16,660	Annual base program fee
15	$ 17,249	Annual base program fee

First 5 payments include the UR cost of $434,564 and 4 annual base fees at $18,620 = $74,480

- $434,564 + $74,480 = $509,044
- $509,044 / 5 = $101,809

*The **annual base fee** is adjusted annually for industry inflation not to exceed 5% per contract.*

*The **annual base fee** covers all program services including future renovation, warranty and risk mitigation.*

Annual Fee Summary

The annual base fee is based upon known industry costs for maintenance, renovation and assessment of tanks. The fees include all services as prescribed in the service schedule. Over the projected life cycle of the Full Service Asset Management Program the annual amount in the pricing proposal covers ongoing, annual maintenance and services related to program.

The following list encompasses the annual services included in the cost estimate:

1. Annual visual inspections
2. Periodic washout inspections with chemical Bio-film removal cleaning
3. Periodic ROV inspections
4. Exterior tank cleaning
5. On call emergency service
6. Allocation for required engineering services
7. Access to the USG internet portal for all tank and program related data.
8. Annual inspection report preparation, delivery and consultation
9. Permits for inspections and renovation work as required
10. Touch up coatings and associated costs (labor, materials, rigging, aerial lifts, etc.)
11. Repairs as required in order to maintain peak performance and keep tank in compliance
12. Pollution liability insurance allocation
13. Other insurance allocations
14. Complete coating renovations at prescribed intervals. (Every 10 years for tank exterior, every 20 years for tank interior)
15. Any other miscellaneous expenses related to the upkeep and preservation of the tank asset as needed and discovered as part of the annual inspection process

The Full Service Asset Management Program also includes the inherent risk mitigation at no charge. If there is a failure of the coating system or a repair fails after several years, the cost to rectify the problem is borne by USG. Peace of mind with a single point tank professional.

Inflation & Key Cost Items

In order to project future costs of predictable maintenance and renovations, USG uses historical data to calculate the projected annual base fees. Internal historical data is used to calculate inflation with 50 years of cost structure. To keep it simple, the short explanation is the current inflation rate is 2.07% (based off of the CIP-U calculations). We also figure current oil prices where each job has products that are tied to oil and our equipment runs on diesel fuel. USG also assumes a great deal of liability taking on associated risks for managing tanks and the associated potential hazards. This requires a significant amount of insurance which sees substantial fluctuation year to year. In addition to these costs, we also maintain the tank up to code with AWWA, SSPC, OSHA and EPA standards and account for any costs that impact our processes over the duration of a contract.

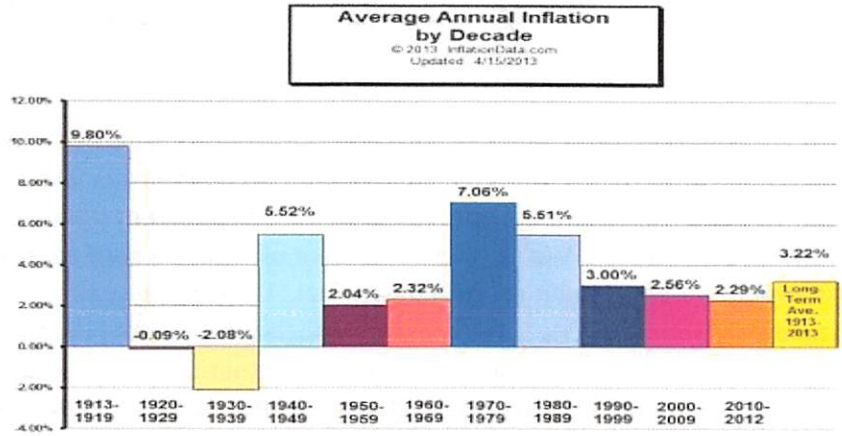
Annual base fees are evaluated and adjusted accordingly annually with a maximum increase of 5% per agreement with the tank owner. By writing a 5% cap into our contracts, USG is protecting our customers and limiting their exposure to an ever changing economic environment. However, we need to account for our future costs.

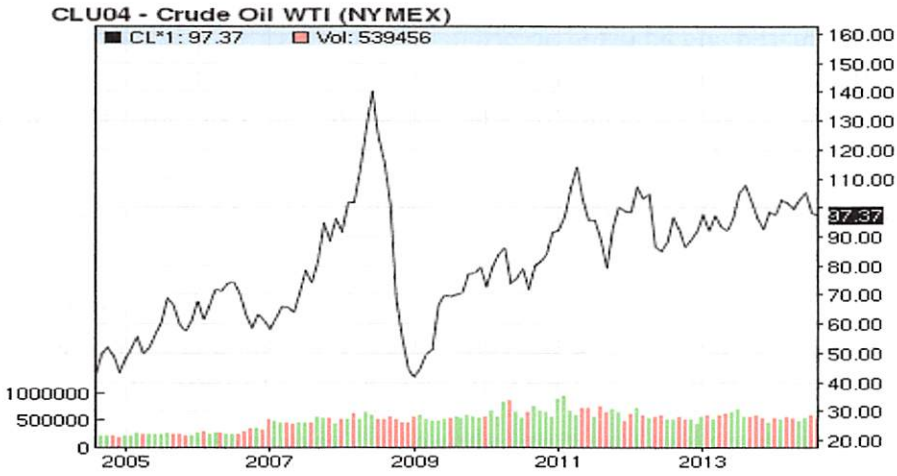
The following reflects the data used to calculate the inflation factor and provides a breakdown of key cost items.

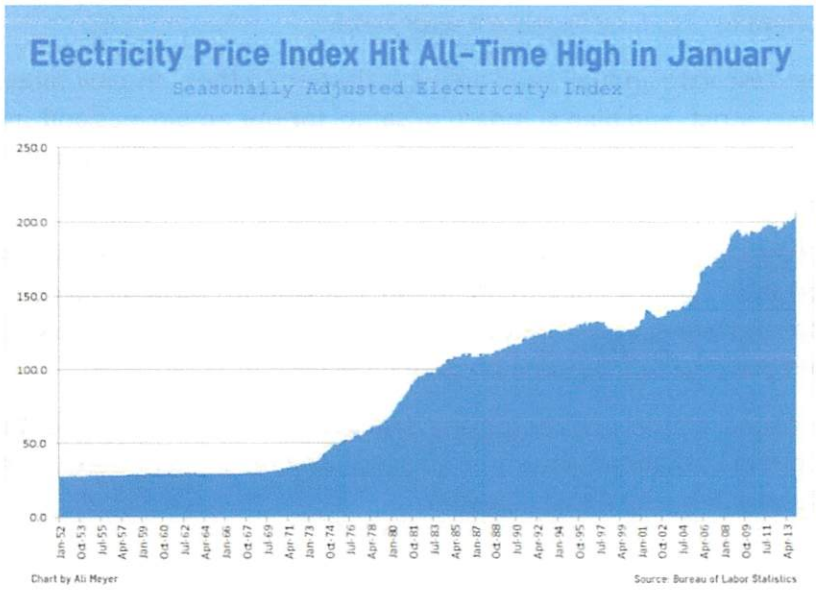
1. Labor costs are the first factor. Labor escalates annually based on supply and demand of specialized labor force that is trained and suitable for safely working with abrasive blasting and coatings at heights that routinely exceed 150 feet above the ground.
2. Materials that include coatings (paint) and abrasives. These products, due their specialty nature tend to increase in cost at a rate higher than the CPI. The key supplier of coatings to USG raised prices for 2015 by nearly 4% over 2014.
3. Insurance costs escalate annually and are typically tied to the company safety record. USG maintains a very strict, and high standard of safety for our employees and subcontractors, but due to the high risk of working at heights with heavy equipment the premiums tend to increase at greater rate than other lower risk companies.
4. Fuel is a key cost component to operating the business. Not only does USG have relatively high transportation expenses due to the number of vehicles owned and operated, the company also runs heavy equipment such as generators, dust collectors, steel grit recycling machines, and compressors that run on diesel fuel.

There are other less critical factors such as lodging, transportation, equipment rentals, etc. that also impact USG's costs, but the inflation factor used to set pricing for the tank asset management programs is primarily driven by the 4 items above.

Examples of inflation and volatility.







Comparing Approaches

The conventional approach of managing water system assets has been run to failure and deal with extraordinary cost of renovation or replacement. This can be a financial crisis if funds have not been set aside or allocated. Even worse when an asset runs to failure, it can result in catastrophe, significant damage and have serious impact on public safety, economy, and ability to provide safe clean drinking water to the public.

Through planned maintenance we can prevent the degradation and failure of tank assets and avoid the associated negative impact of the conventional approach. Often the conventional approach awards tank work to low bidder who provides a one year warranty on the coatings and workmanship. In some instances a thorough experience and qualifications process does not take place. This approach is not the most advantageous as it results in poor workmanship, low quality and premature failure of coatings. Typically the costs associated with these issues fall on the tank owner.

The USG program shifts risk mitigation from the owner to USG on day one. It becomes the responsibility of USG to properly maintain the tank with all workmanship and coatings under complete warranty. USG manages these risks through planned activities and budgeting.

Life Cycle Cost Savings

While there are many benefits and advantages of using a single point tank professional to maintain the tank asset and assume the associated risk, this approach also offers savings over the tank life cycle. A key component of asset management is the reduction of life cycle cost. The following illustrates the added benefit of financial management and cost savings of the USG program when compared to the conventional approach of low bid and associated costs projected over twenty years.

See the following two life cycle cost comparison tables.

Life Cycle Cost Savings

Comparing the USG Asset Management program to the conventional low bid – run to failure approach:

Year	USG Asset Management Program 5 year UR spread option	Price	Traditional Run to Failure Approach	Price
1	Upfront renovation (UR), all services, transfer of risk day 1	$ 101,809	Do nothing – run to failure	
2	All program services, warranty	$ 101,809	*Tank owner owns risk*	
3	All program services, warranty	$ 101,809	*Tank owner owns risk*	
4	All program services, warranty	$ 101,809	*Tank owner owns risk*	
5	All program services, warranty	$ 101,809	Inspection	$ 4,500
6	All program services, warranty	$ 20,296	*Tank owner owns risk*	
7	All program services, warranty	$ 21,015	*Tank owner owns risk*	
8	All program services, warranty	$ 21,759	*Tank owner owns risk*	
9	All program services, warranty	$ 22,529	*Tank owner owns risk*	
10	Overcoat, All program services	$ 23,327	Inspection	$ 5,000
11	All program services, warranty	$ 15,009	*Tank owner owns risk*	
12	All program services, warranty	$ 15,540	*Tank owner owns risk*	
13	All program services, warranty	$ 16,090	*Tank owner owns risk*	
14	All program services, warranty	$ 16,660	*Tank owner owns risk*	
15	All program services, warranty	$ 17,249	Inspection	$ 5,500
	Cost of program over 15 years:	$ 698,516	Full Exterior & Interior Renovation	$ 829,722
5 year renewal option			Engineering Fees at 10%	$ 82,927
Option to negotiate an additional 5 years maintenance and address another exterior overcoat and new interior in year 20.			Legal and Bond Fees at 3%	$ 24,892
			Loan Interest over 15 Years at 1.5%	$ 97,357
			Run to failure cost over 15 years:	$1,049,898

Note: See Scope of Work, Service Schedule and Annual Fee Summary for summaries of all program services

Risk Management

In year one under the tank maintenance and asset management program, USG assumes the inherent risk mitigation for maintenance of the tank and tank structure. The extended warranty ensures coatings are maintained each year under contract. The mixer and all workmanship is also included in the extended warranty. The program avoids going to failure and the tank is in best standard of service for the water system. Known predictable annual rates avoids the unpredictable ebb and flow of major renovation costs.

Value…More for your dollar

When allocating dollars, today's water industry is faced with the challenge of having many needs with limited funding. So it is always a wise decision to get as much for your dollar as possible. Understanding value and cost savings when purchasing is critical. The following illustrates a value comparison of the USG tank maintenance and asset management program when compared to the conventional approach; low bid, one year warranty and the tank owner managing tank maintenance and owning the associated risks.

More for your dollar with Tank Maintenance & Asset Management

BENEFITS & SERVICES	ASSET MANAGEMENT APPROACH	TRADITIONAL APPROACH
All Risk and Liability for tank maintenance shifts	✔ (from tank owner to USG)	
A single point tank professional	✔	
Spread cost over several years	✔	
Flatten budget with Annual Fee	✔	
Change orders	NA	✔
Inspections	Annually with detailed reports:	every 5 years
	- Visual Inspections	
	- ROV Inspections	
	- BIOFILM Washout Inspections	
Exterior cleaning	✔	
Emergency Service 24/7	✔	
Graffiti Removal	✔ (considered emergency service)	
Warranty on Coatings	Indefinite under annual contract	1 Year
Warranty on Workmanship	Indefinite under annual contract	1 Year
Tank Maintenance and Repairs	Indefinite under annual contract	
Secure Online Portal for Information Access	✔	
Future Exterior and Interior Renovations	✔	✔
Tank maintains value	✔ (GASB34 compliant program)	

Asset Management provides the best solution for maintaining water quality & preserving your tank asset

Procurement & Legislation

Part I Administration of the Government, Title VII Cities, Towns and Districts, Chapter 40 Powers and Duties of Cities and Towns, Section 62 Contracts for the inspection, maintenance, repair or modification of water storage facility authorized (62-69)

Website references:

Chapter 40 Section 62
Contracts for the inspection, maintenance, repair or modification of water storage facility authorized
https://malegislature.gov/Laws/GeneralLaws/PartI/TitleVII/Chapter40/Section62

Chapter 40 Section 63
Term of contract awarded under Sec. 62 and option for renewal or extension; contents of contract and obligations thereunder; requirements relating to capital modifications, capital repairs, installation of equipment and systems or second interior or exterior coating
https://malegislature.gov/Laws/GeneralLaws/PartI/TitleVII/Chapter40/Section63

Chapter 40 Section 64
Solicitation of proposals; statement of compliance with occupation health and safety requirements
https://malegislature.gov/Laws/GeneralLaws/PartI/TitleVII/Chapter40/Section64

Chapter 40 Section 65
Acceptance of proposal and award of contract; notice; statement of reasons for acceptance
https://malegislature.gov/Laws/GeneralLaws/PartI/TitleVII/Chapter40/Section65

Chapter 40 Section 66
Terms and conditions of contract awarded under Secs. 61 to 69; bond or other security for the obligation of selected offeror
https://malegislature.gov/Laws/GeneralLaws/PartI/TitleVII/Chapter40/Section66

Part I Administration of the Government, Title III Laws Relating to State Officers, Chapter 30 Uniform Procurement Act, Section 6 Competitive sealed proposals; requests for proposals; additional evaluation criteria

Website reference:

Chapter 30B Section 6
Competitive sealed proposals; requests for proposals; additional evaluation criteria
https://malegislature.gov/Laws/GeneralLaws/PartI/TitleIII/Chapter30B/Section6

Key Procurement Points

- Security - full accumulated amount are guaranteed by a bond, letter of guaranty or other form of guaranty to be submitted on an annual basis and approved by the governmental unit for the 100 percent accumulated amount.
- RFP vs Bid – allows for full qualification of the right plan and contractor to provide the appropriate services ongoing and eliminates the risk of poor quality and running to failure.
- Term - not exceeding 15 years, and an option for renewal or extension of inspection, maintenance, repair or modification services for 1 additional term not exceeding 5 years.

Conclusion & Commitment

At Utility Service Group, we understand the challenges of today's water industry. From aging and failing infrastructure, to stricter regulatory compliance for water quality, to the lack of funding available to take care of these critical needs.

From source to tap, Utility Service Group offers solutions to address these specific challenges you face. Through practical asset management programs we provide comprehensive asset condition assessments, the necessary renovations and ongoing maintenance to help you effectively preserve your critical system assets. And through modern technologies and better practices, Utility Service Group help systems create a cleaner, well maintained system to help you manage water quality more effectively and efficiently. Our programs offer the financial flexibility to help with short and long term budget strategies to address the financial hurdles of getting things done in a timely manner.

If you're tired of the traditional Band-Aid approach and interested in sustainability of your water system, we at Utility Service Group can help ensure your water system assets are preserved for future generations at the lowest life cycle cost and help you offer safer, clean drinking water to your community.

The program we have provided for the your tank offers a solution for addressing an immediate need and provides a plan for ongoing maintenance to maintain optimal performance with a sound financial budget strategy.

USG Contact Information:
Scott B. Kelley
24 Fellows Rd
Brentwood, NH 03833
603-724-8226
skelley@utilityservice.com

Key Massachusetts Procurement Legislation Points and Information for Tank Maintenance and Asset Management

Legislation – MA General Laws: Part I Administration of the Government, Title VII Cities, Towns and Districts, Chapter 40 Powers and Duties of Cities and Towns, Section 62 Contracts for the inspection, maintenance, repair or modification of water storage facility authorized (62-69)

- Security (full accumulated amount are guaranteed by a bond, letter of guaranty or other form of guaranty to be submitted on an annual basis and approved by the governmental unit for the 100 per cent accumulated amount.
- RFP vs Bid
- Term - not exceeding 15 years, and an option for renewal or extension of inspection, maintenance, repair or modification services for 1 additional term not exceeding 5 years.

Chapter 40 Section 62. Pursuant to sections 61 to 69, inclusive, a governmental unit may enter into contracts for the inspection, maintenance, repair or modification of a water storage facility to maintain adequate services to users and to ensure that the water storage facility is in compliance with federal, state and local laws. All contracts shall be awarded in accordance with section 6 of chapter 30B and approved by a 2/3 vote of the local legislative body of the governmental unit. An approved contract may provide that the governmental unit: (i) may make annual payments to fund capital modifications, repairs or installation of equipment and systems at a water storage facility that have been completed or are to be completed pursuant to the terms of the request for proposals; provided, however, that costs shall be amortized over a period that shall not be longer than the useful life of the modifications or repairs or the equipment and systems installed; and (ii) may make payments for future capital modifications, repairs or installation of equipment and systems or a second interior or exterior coating at a water storage facility pursuant to the terms of the request for proposals based on estimated costs of such capital modifications, repairs or installation of equipment and systems at a water storage facility, only if the payments for the full accumulated amount are guaranteed by a bond, letter of guaranty or other form of guaranty to be submitted on an annual basis and approved by the governmental unit for the 100 per cent accumulated amount.

Chapter 40 Section 63. (a) A contract awarded under section 62 may provide for a term, not exceeding 15 years, and an option for renewal or extension of inspection, maintenance, repair or modification services for 1 additional term not exceeding 5 years. When a contract is to contain an option for renewal or extension, the solicitation shall include notice of that provision. A renewal or extension shall be at the sole discretion of the governmental unit under the terms and conditions of the original contract. Subject to subsection (b), a contract awarded under said section 62 shall contain a provision stating that the governmental unit may terminate the contract upon 90 days written notice.

(b) A contract entered into under section 62 may provide that the governmental unit's obligation under the contract for payment of the annual costs to inspect, maintain, repair or modify a water storage facility shall be subject to appropriation; provided, however, that a governmental unit shall not be exempt from liability for the payment of the amounts amortized for completed capital modifications, repairs or installation of equipment and systems at a water storage facility. Costs shall be amortized over a period that shall not be longer than the useful life of the modifications or repairs or the equipment and systems installed. A governmental unit's payment obligation for any inspection, maintenance, repair or modification services shall be contingent upon the contractor's performance of the services under the terms of the contract. A contract entered into pursuant to this section shall include the independent professional engineer's report that was used as the basis of the solicitation and shall include a breakdown of the portion of the annual fee that is: (i) allocated to inspection, maintenance, operation, testing and ordinary repair which shall be subject to the provisions concerning annual appropriation in this section; and (ii) attributable to capital modification, capital repairs or installation of equipment and systems at a water storage facility for which the amount of the lump sum cost of such capital modification, capital repairs or installation of equipment and systems at a water storage facility has been amortized over the life of the contract. In addition, if the local legislative body votes to make payments for future capital modifications, capital repairs, installation of equipment and systems or a second interior or exterior coating, a contract entered into pursuant to this section shall include a schedule of the payments to be made

based on the estimated costs of such future capital modifications, capital repairs, installation of equipment and systems or a second interior or exterior coating as submitted by the selected offeror in response to the request for proposals, which shall be used to determine the full accumulated amount to be guaranteed. In the event of a termination, the amounts held for future capital modifications, capital repairs or installation of equipment and systems or a second interior or exterior coating shall be refunded to the governmental unit in accordance with the terms and conditions of the request for proposals.

(c) A contract entered into under section 62 may provide for any activities deemed necessary to carry out sections 61 to 69, inclusive, which may include, but shall not be limited to, equipment installation and replacement, studies, permitting, design and engineering, capital modification, capital repairs, painting, ordinary repairs and maintenance and the furnishing of all related material, supplies and services required for a water storage facility and the management, maintenance and repair of and improvements to the facility. In the event that the contract and any lawfully executed extension of the initial term includes payments for future capital modifications, capital repairs, installation of equipment and systems or a second interior or exterior coating, prior to proceeding the governmental unit shall seek the consultation of a professional engineer or independent certified tank consultant to complete an independent review of the proposed scope in relation to the condition of the water storage facility. The engineer or tank consultant shall prepare a written report to advise the governmental unit on proceeding with the contractor's proposal.

Chapter 40 Section 64. The chief procurement officer of a governmental unit shall solicit proposals in conformance with section 6 of chapter 30B. Information from the governmental unit shall contain a full and complete description of the condition of the water storage tank as written by an independent professional engineer. The scope of services shall contain a detailed description of the services to be provided by the selected proposer.

Chapter 30B Section 6
A contract entered into under sections 61 to 69, inclusive, shall specifically state that the offeror and any subcontractor under the offeror shall comply with all federal and state occupational health and safety requirements applicable to the activities provided for in the contract.

Section 6. (a) A chief procurement officer may enter into procurement contracts in the amount of $25,000 or more utilizing competitive sealed proposals, in accordance with the provisions of this section. The chief procurement officer shall not solicit competitive sealed proposals unless he has determined in writing that selection of the most advantageous offer requires comparative judgments of factors in addition to price, specifying the reasons for his determination.

(b) The chief procurement officer shall solicit proposals through a request for proposals. The request for proposals shall include:

(1) the time and date for receipt of proposals, the address of the office to which the proposals are to be delivered, the maximum time for proposal acceptance by the governmental body;

(2) the purchase description and all evaluation criteria that will be utilized pursuant to paragraph (e); and

(3) all contractual terms and conditions applicable to the procurement provided that the contract may incorporate by reference a plan submitted by the selected offeror for providing the required supplies or services.

The request for proposals may incorporate documents by reference; provided, however, that the request for proposals specifies where prospective offerors may obtain the documents. The request for proposals shall provide for the separate submission of price, and shall indicate when and how the offerors shall submit the price. The chief procurement officer shall make copies of the request for proposals available to all persons on an equal basis.

(c) Public notice of the request for proposals shall conform to the procedures set forth in paragraph (c) of section five.

(d) The chief procurement officer shall not open the proposals publicly, but shall open them in the presence of one or more witnesses at the time specified in the request for proposals. Notwithstanding the provisions of section seven of chapter four, until the completion of the evaluations, or until the time for acceptance specified in the request for proposals, whichever occurs earlier, the contents of the proposals shall remain confidential and shall not be disclosed to competing offerors. At the opening of proposals the chief procurement officer shall prepare a register of proposals which shall include the name of each offeror and the number of modifications, if any, received. The register of proposals shall be open for public inspection. The chief procurement officer may open the price proposals at a later time, and shall open the price proposals so as to avoid disclosure to the individuals evaluating the proposals on the basis of criteria other than price.

(e) The chief procurement officer shall designate the individual or individuals responsible for the evaluation of the proposals on the basis of criteria other than price. The designated individuals shall prepare their evaluations based solely on the criteria set forth in the request for proposals. Such criteria shall include all standards by which acceptability will be determined as to quality, workmanship, results of inspections and tests, and suitability for a particular purpose, and shall also include all other performance measures that will be utilized. The evaluations shall specify in writing:

(1) for each evaluation criterion, a rating of each proposal as highly advantageous, advantageous, not advantageous, or unacceptable, and the reasons for the rating;

(2) a composite rating for each proposal, and the reasons for the rating; and

(3) revisions, if any, to each proposed plan for providing the required supplies or services which should be obtained by negotiation prior to awarding the contract to the offeror of the proposal.

(f) A proposal may be corrected, modified or withdrawn to the extent provided in paragraph (f) of section five.

(g) The chief procurement officer shall determine the most advantageous proposal from a responsible and responsive offeror taking into consideration price and the evaluation criteria set forth in the request for proposals. The chief procurement officer shall award the contract by written notice to the selected offeror within the time for acceptance specified in the request for proposals. The parties may extend the time for acceptance by mutual agreement. The chief procurement officer may condition an award on successful negotiation of the revisions specified in the evaluation, and shall explain in writing the reasons for omitting any such revision from a plan incorporated by reference in the contract.

(h) If the chief procurement officer awards the contract to an offeror who did not submit the lowest price, the chief procurement officer shall explain the reasons for the award in writing, specifying in reasonable detail the basis for determining that the quality of supplies or services under the contract will not exceed the governmental body's actual needs.

(i) If a contract requiring payment to the governmental body of a net monetary sum is awarded to an offeror who did not submit the highest price, the chief procurement officer shall explain the reasons for the award in writing as set forth in paragraph (h).

(j) Notwithstanding the provisions of this section, with respect to contracts for the recycling or composting of solid waste or the treatment, composting or disposal of sewage, septage or sludge at a facility to be owned and constructed by a private party or parties whether such facility will be, located on public or private land, the request for proposals may include proposed contractual terms and conditions to be incorporated into the contract, some of which may be

deemed mandatory or non-negotiable, provided that the request for proposals may request proposals or offer options for fulfillment of other contractual terms. The chief procurement officer shall make a preliminary determination of the most advantageous proposal from a responsible and responsive offeror taking into consideration price and the evaluation criteria set forth in the request for proposals. The chief procurement officer may negotiate all terms of the contract not deemed mandatory or non-negotiable with such offeror. If after negotiation with such offeror, the chief procurement officer determines that it is in the best interests of the governmental body, the chief procurement officer may determine the proposal which is the next most advantageous proposal from a responsible and responsive offeror taking into consideration price and the evaluation criteria set forth in the request for proposals, and may negotiate all terms of the contract with such offeror. The chief procurement officer shall award the contract to the most advantageous proposal from a responsible and responsive offeror taking into consideration price, the evaluated criteria set forth in the request for proposals, and the terms of the negotiated contract. The chief procurement officer shall award the contract by written notice to the selected offeror within the time for acceptance specified in the request for proposals. The time for acceptance may be extended for up to 45 days by mutual agreement between the governmental body and the responsible and responsive offeror offering the most advantageous proposal as determined by the chief procurement officer.

(k) Notwithstanding the provisions of this section, with respect to contracts for energy-related services entered into by a city or town or group of cities or towns, the requests for proposals may include proposed contractual terms and conditions to be incorporated into the contract, some of which may be deemed mandatory or non-negotiable; provided, however, that the request for proposals may request proposals or offer options for fulfillment of other contractual terms. The chief procurement officer shall make a preliminary determination of the most advantageous proposal from a responsible and responsive offeror taking into consideration price and the evaluation criteria set forth in a request for proposals. The chief procurement officer may negotiate all terms of the contract not deemed mandatory or non-negotiable with such offeror. If after negotiation with such offeror the chief procurement officer determines that it is in the best interest of the governmental body, the chief procurement officer may determine the proposal which is the next most advantageous proposal from a responsible and responsive offeror taking into consideration price and the evaluation criteria set forth in the request for proposals, and may negotiate all terms of the contract with such offeror. The chief procurement officer shall award the contract to the most advantageous proposal from a responsible and responsive offeror taking into consideration price, the evaluated criteria set forth in the request for proposals, and the terms of the negotiated contract. The chief procurement officer shall award the contract by written notice to the selected offeror within the time for acceptance specified in the request for proposals. The parties may extend the time for acceptance by mutual agreement.

Chapter 40 Section 65. The chief procurement officer of a governmental unit shall award the contract to the most advantageous proposal from a responsible and responsive offeror taking into consideration price and the evaluation criteria set forth in the request for proposals; provided, however, that such proposal shall be in full compliance with all applicable requirements of federal, state and local laws, including section 26 to 27H, inclusive, of chapter 149. The governmental unit shall provide written notice to the selected offeror within the time for acceptance specified in the request for proposals. The governmental unit and the offeror may extend the time for acceptance by mutual agreement. If the contract award is made to an offeror who did not have the lowest overall price proposal, then the chief procurement officer shall publish a timely written statement of reasons for its selection in the central register.

3.2

MHQ
VEHICLES ■ EQUIPMENT ■ GEAR
401 Elm Street
Marlborough, MA 01752

May 12, 2015

Town of Townsend
Paul Rafuse

978-597-2212 ph.
prafuse@townsend.ma.us email
kchapman@townsend.ma.us

Please find below a quote for a **Ford Fusion SE** per the State of Massachusetts vehicle procurement contract# OVM-10 M.G.L. c.30B applies to the procurement of all commodities quoted. Contract items have been collectively purchased pursuant to M.G.L. c.30B sec. 1c and M.G.L. c.7 sec 22B. The governmental body is responsible to determine the applicability of M.G.L. c30B to off contract items, including but not limited to, off contract items that have already been properly procured under M.G.L. c30B sec. 1c and M.G.L. c.7 sec. 22A (purchases from a vendor on contract with the Commonwealth), other contracts procured under M.G.L. c 30B sec. 1c and M.G.L. c.7 sec. 22B or any M.G.L. c. 30B contract between the vendor and the jurisdiction. All off contract Items must be procured under M.G.L. c. 30B.

QF54-15	Ford Fusion SE FWD	$ 18,717.00
J4	Color: Deep Impact Blue	included
	2.5L VCT engine	included
	6 Spd Automatic Transmission	included
	Power Group Package	included
	AM/FM CD Player Stereo Radio	included
	Air Conditioning	included
	Rear view Camera	included
	Remote Key less Entry	included
	SYNC	included
	Whelen (4) Vertex Hideaways (2) front (2) rear amber	505.00
	Switch for lighting	50.00
	Graphics package (door seals)	295.00
	Total Contract Price:	**$ 19,567.00**
	Trade In:	**$ (5,900.00)**
	Total w/ Trade In:	**$ 13,667.00**

Sincerely,

Jay Matisko
Fleet Manager

FISCAL YEAR 16 SUMMARY

TOWNSEND WATER DEPARTMENT - ACCOUNTS RECEIVABLE

September 30, 2015

UNCOLLECTED FROM JUNE 30, 2015				**75,812.05**
CHARGED 07/01/14- 09/30/15	**9/30/2015**	**Previous Balance**	**Total**	
USER CHARGES	630.00	270,780.00	271,410.00	
SERVICE CHARGES	1,175.07	8,052.09	9,227.16	
CONNECTION CHARGES	2,000.00	8,000.00	10,000.00	
LATE CHARGES	1,416.18	3,666.22	5,082.40	
BACKFLOW	0.00	2,275.00	2,275.00	
SUBTOTAL	**5,221.25**			
TOTAL CHARGES				**297,994.56**
				373,806.61
RECEIVED 07/01/14- 09/30/15	**9/30/2015**			
USER CHARGES	18,028.18	231,272.50	249,300.68	
SERVICE CHARGES	923.07	8,691.80	9,614.87	
CONNECTION CHARGES	2,000.00	8,000.00	10,000.00	
LATE CHARGES	824.64	2,379.02	3,203.66	
BACKFLOW	35.00	2,125.16	2,160.16	
SUBTOTAL	**21,810.89**			
TOTAL RECEIPTS				**274,279.37**
SENT TO LIEN				0.00
LIENS COLLECTED				0.00
ABATEMENTS				35.00
ADJUSTMENTS				-254.50
UNCOLLECTED				**99,746.74**
				373,806.61

OUTSTANDING:

USER CHARGES	$	**90,841.35**
SERVICE CHARGES		1,732.80
CONNECTION CHARGES		0.00
LATE CHARGES		6,957.75
BACKFLOW		214.84
TOTAL OUTSTANDING	$	**99,746.74**