

Tri-County Water Board of Management Agenda

December 15, 2020, 7:00 p.m.
Electronic Participation Meeting via Zoom

Due to the COVID-19 Pandemic this meeting will be held electronically. Please contact the Clerk's Department if you require an alternate format or accessible communication support or wish to receive the link to the meeting, at 519-785-0560 or by email at clerk@westelgin.net.

Pages

1. Call to Order

2. Adoption of Agenda

Recommendation:

That Tri-County Water Board hereby adopts the Agenda for December 17, 2020 as presented.

3. Disclosure of Pecuniary Interest

4. Minutes

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Recommendation:

That minutes of the Tri-County Water Board meeting on October 27, 2020 be adopted as circulated and printed.

5. Business Arising from Minutes

6. Staff Reports

6.1. Third Quarter Operations Report

6

Recommendation:

That Tri-County Water Board hereby receives the 2020 Third Quarter Operations Report from OCWA.

6.2. Extension of Auditing Services

19

Recommendation:

That the Tri-County Water Board hereby approve the extension of External Audit Services by Scrimgeour & Company CPA Professional Company at a cost of \$3,700 for five years until December 31, 2025.

6.3. 2021 Insurance Renewal

20

Recommendation:

That the Tri-County Water Board hereby approves the renewal of insurance coverage with Frank Cowan at an annual cost of \$18,285 plus applicable taxes.

7. 2021 Proposed Budget

51

Recommendation:

That the Tri-County Water Board hereby adopt the 2021 Operating and Capital Budgets as presented.

8. New Business

8.1. Election of Chair & Vice Chair for 2021

9. Adjournment

Recommendation:

That the Tri-County Water Board hereby adjourn at _____ p.m. to reconvene on January 26, 2021 at 7:00 p.m. or at the Call of the Chair.

Tri-County Water Board of Management

Minutes

October 27, 2020, 7:00 p.m.

Electronic Participation Meeting via Zoom

Present: Allan Mayhew, Southwest Middlesex
Angela Cammaert, West Elgin
Bonnie Rowe, West Elgin
Doug Bartlett, Southwest Middlesex
Duncan McPhail, West Elgin
Ken Loveland, Dutton Dunwich
Marigay Wilkins, Southwest Middlesex
Taraesa Tellier, West Elgin
Tim Sunderland, Chatham-Kent
Bob Purcell, Chair
Mike Hentz, Dutton Dunwich
Diane Brewer, Newbury

Staff Present: Jana Nethercott, Recording Secretary
Magda Badura, CAO/Treasurer

Also Present: H. Bouw, Clerk Dutton Dunwich
Amy Dale, Solicitor Gunn and Associates
Betty Gordon, Newbury
Dale LeBritton, OCWA
Mike Taylor, OCWA
Vitaliy Talshok, OCWA

Due to the COVID-19 Pandemic and physical distancing requirements, this meeting will be held electronically.

1. Call to Order

Chair B. Purcell called the meeting to order at 7:00 p.m.

2. Motion To Recognize

Moved: Duncan McPhail

Seconded: Taraesa Tellier

That Tri-County Water Board recognize Diane Brewer as the voting representative from Newbury for the October 27, 2020 meeting.

For (11): Allan Mayhew, Angela Cammaert, Bonnie Rowe, Doug Bartlett, Duncan McPhail, Ken Loveland, Marigay Wilkins, Taraesa Tellier, Tim Sunderland, and Mike Hentz, Bob Purcell.

Disposition: Carried (11 to 0)

3. Adoption of Agenda

Moved: Allan Mayhew

Seconded: Ken Loveland

That Tri-County Water Board hereby adopts the Agenda for October 27, 2020 as presented.

For (12): Allan Mayhew, Angela Cammaert, Bonnie Rowe, Doug Bartlett, Duncan McPhail, Ken Loveland, Marigay Wilkins, Taraesa Tellier, Tim Sunderland, and Mike Hentz, Diane Brower, Bob Purcell

Disposition: Carried (12 to 0)

6. Business Arising from Minutes

None.

4. Disclosure of Pecuniary Interest

No disclosures

7. Staff Reports

7.1 OCWA - Tri-County Drinking Water System Second Quarter Operations Report

Mike Taylor and Vitaliy Talashok presented the Second Quarter Operations Report.

Moved: Mike Hentz

Seconded: Doug Bartlett

That the Tri-County Water Board receives the Second Quarter Operations Report from Ontario Clean Water Agency.

For (12): Allan Mayhew, Angela Cammaert, Bonnie Rowe, Doug Bartlett, Duncan McPhail, Ken Loveland, Marigay Wilkins, Taraesa Tellier, Tim Sunderland, and Mike Hentz, Diane Brower, Bob Purcell

Disposition: Carried (12 to 0)

7.2 M. Taylor, OCWA - Building Condition Assessment & Capital Reserve Fund

Mike Taylor, OCWA presented the Building Condition Assessment and Capital Reserve Fund.

Moved: Diane Brewer

Seconded: Angela Cammaert

That Tri-County Water Board receives the Building Condition Assessment and Capital Reserve Fun Report from Mike Taylor, OCWA.

For (12): Allan Mayhew, Angela Cammaert, Bonnie Rowe, Doug Bartlett, Duncan McPhail, Ken Loveland, Marigay Wilkins, Taraesa Tellier, Tim Sunderland, and Mike Hentz, Diane Brower, Bob Purcell

Disposition: Carried (12 to 0)

7.3 Financials

Magda Badura reported that revenues are projected to be slightly higher due to the rate increase in July and hydro savings.

Moved: Taraesa Tellier
Seconded: Bonnie Rowe

That Tri-County Water Board receives the Financial and Capital Statements as of September 30, 2020 from Magda Badura.

For (12): Allan Mayhew, Angela Cammaert, Bonnie Rowe, Doug Bartlett, Duncan McPhail, Ken Loveland, Marigay Wilkins, Taraesa Tellier, Tim Sunderland, and Mike Hentz, Diane Brower, Bob Purcell

Disposition: Carried (12 to 0)

8. Closed Session

Moved: Mike Hentz
Seconded: Allan Mayhew

That Tri-County Water Board hereby proceeds into Closed Session at 7:33 p.m., under Section 239(2)(f) of the *Municipal Act*, consideration will be given to advice that is subject to solicitor-client privilege, including communications.

For (12): Allan Mayhew, Angela Cammaert, Bonnie Rowe, Doug Bartlett, Duncan McPhail, Ken Loveland, Marigay Wilkins, Taraesa Tellier, Tim Sunderland, and Mike Hentz, Diane Brower, Bob Purcell

Disposition: Carried (12 to 0)

9. Report from Closed Session

Moved: Marigay Wilkins
Seconded: Doug Bartlett

That Tri-County Water Board provide direction to staff to make amendments to a draft of the Tri-County Water Board Master Agreement.

For (12): Allan Mayhew, Angela Cammaert, Bonnie Rowe, Doug Bartlett, Duncan McPhail, Ken Loveland, Marigay Wilkins, Taraesa Tellier, Tim Sunderland, and Mike Hentz, Diane Brower, Bob Purcell

Disposition: Carried (12 to 0)

10. Adjournment

Moved: Taraesa Tellier

Seconded: Marigay Wilkins

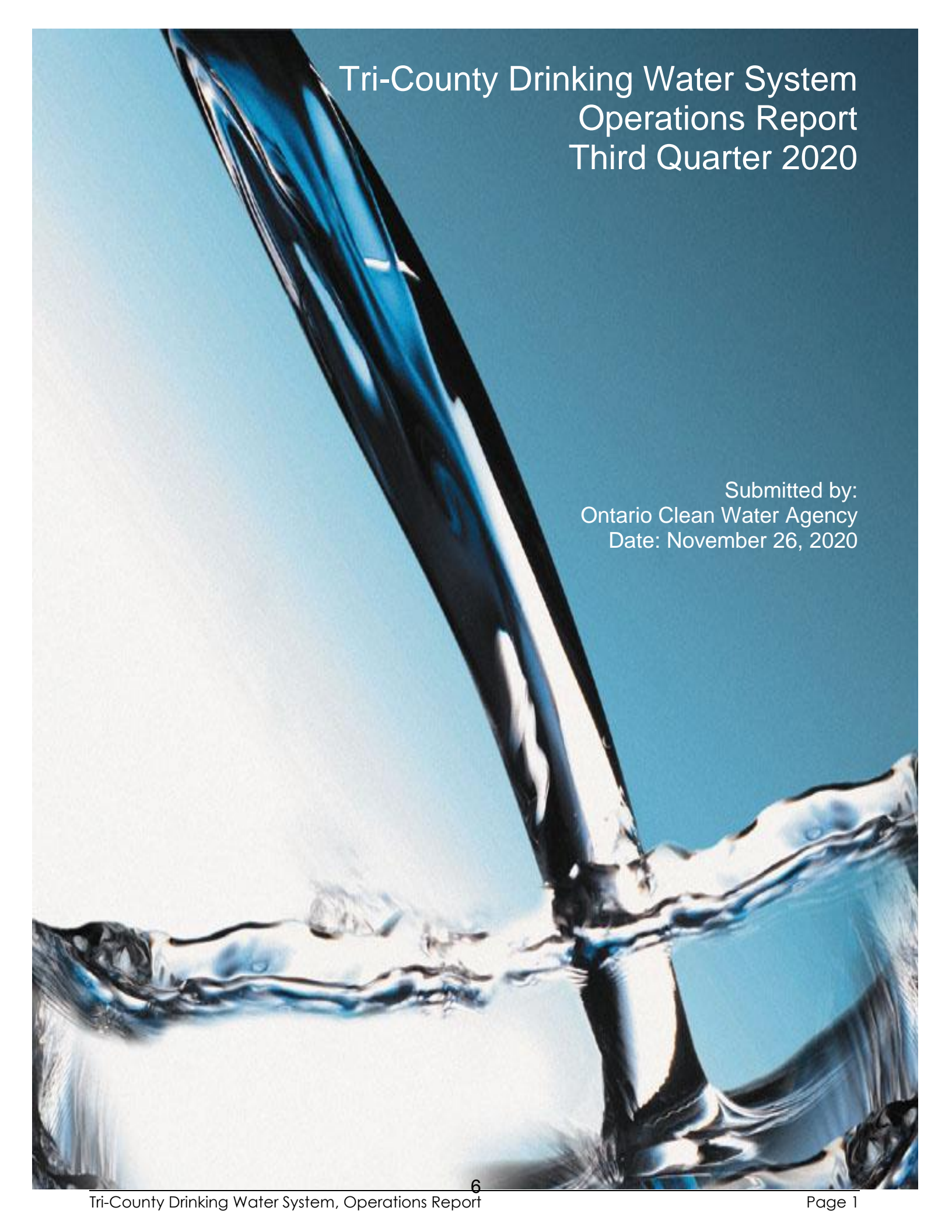
That the Tri-County Water Board hereby adjourn at 8:51 p.m. to reconvene on December 15, 2020 at 7:00 p.m. electronically or at the Call of the Chair.

For (12): Allan Mayhew, Angela Cammaert, Bonnie Rowe, Doug Bartlett, Duncan McPhail, Ken Loveland, Marigay Wilkins, Taraesa Tellier, Tim Sunderland, and Mike Hentz, Diane Brower, Bob Purcell

Disposition: Carried (12 to 0)

Bob Purcell, Chair

Jana Nethercott, Recording Secretary



Tri-County Drinking Water System Operations Report Third Quarter 2020

Submitted by:
Ontario Clean Water Agency
Date: November 26, 2020

Facility Description

Facility Name:	Tri-County Drinking Water System
Regional Manager:	Dale LeBritton (519) 476-5898
Sr. Operations Manager:	Mike Taylor (226) 545-0414
Business Development Manager:	Susan Budden (519) 318-3271
Facility Type:	Municipal
Classification:	Class 2 Water Distribution, Class 2 Water Treatment
Title Holder:	Municipality

Service Information

Area(s) Serviced:	West Elgin, Dutton/Dunwich, Southwest Middlesex, Newbury and Bothwell
Population Serviced:	9,985
No. of Connections:	
Water Meters:	Commercial / Residential
In Service Date:	2009

Capacity Information

Total Design Capacity:	12.160 (1000 m ³ /day)
Total Annual Flow:	1,381 (1000 m ³ /year)
Average Day Flow:	3.770 (1000 m ³ /day)
Maximum Day Flow:	5.380 (1000 m ³ /day)

Operational Description

Water treatment with intake in Lake Erie, 4 low lift pumps, lifting up to the treatment plant. Membrane filtration followed by injection with Sodium Hypochlorite for primary disinfection and into the 2 Storage Tanks. Pumping to tower & distribution system with 4 high lift pumps.

SECTION 1: COMPLIANCE SUMMARY

FIRST QUARTER:

On March 29th, 2020 at 15:41 the historian had a failure likely due to a power surge during a wind storm. The historian alarm failed to call out at 15:41 due to a firewall on the system; however the normal plant alarms functioned. On March 30th the operator conducted the 72hr review of continuous monitoring data with no issues found as identified on round sheets. However, on March 31st, it was noticed that the previous data that was reviewed was no longer stored. The operator contacted the SCADA provider, Eramosa to see if the information could be retrieved from the PLC. Eramosa attempted to retrieve the data from the PLC and the Rockwell historian but was unsuccessful. A non-compliance was reported to the MECP for the loss of continuous monitoring data.

SECOND QUARTER:

There were no compliance or exceedance issues reported this quarter.

THIRD QUARTER:

There were no compliance or exceedance issues reported this quarter.

SECTION 2: INSPECTIONS

FIRST QUARTER:

There was no Ministry of Environment, Conservation and Parks (MECP) or MOL inspections conducted during the first quarter.

SECOND QUARTER:

There was no Ministry of Environment, Conservation and Parks (MECP) or MOL inspections conducted during the second quarter.

THIRD QUARTER:

There was no Ministry of Environment, Conservation and Parks (MECP) or MOL inspections conducted during the third quarter.

SECTION 3: QEMS UPDATE

FIRST QUARTER:

There were no QEMS updates this quarter.

SECOND QUARTER:

There were no QEMS updates this quarter.

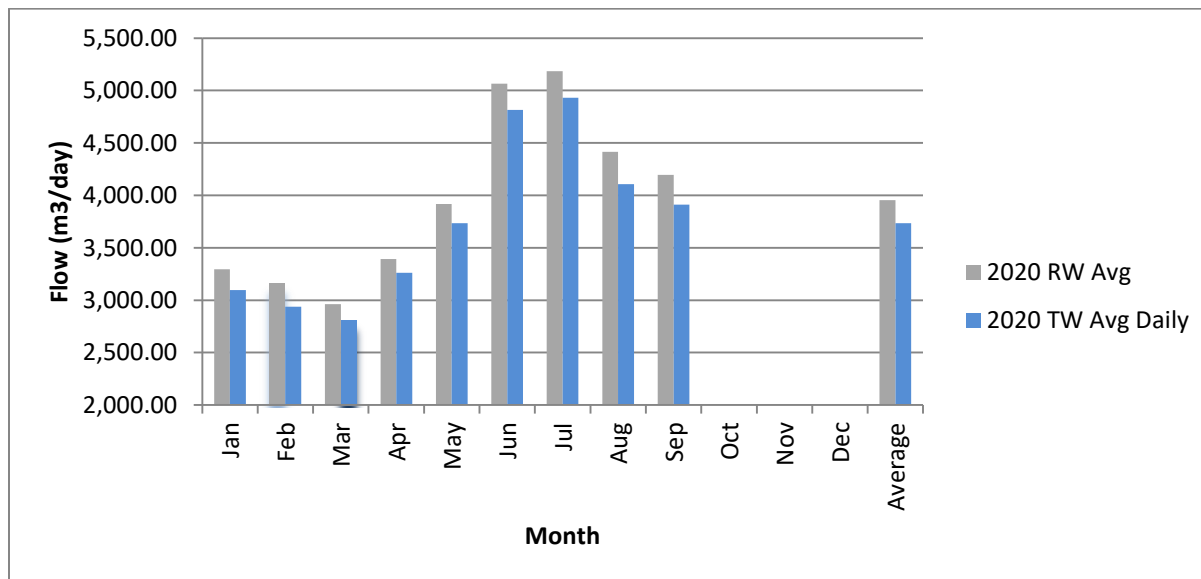
THIRD QUARTER:

There were no QEMS updates this quarter.

SECTION 4: PERFORMANCE ASSESSMENT REPORT

The plant is at 94.4% efficiency with the water taken from Lake Erie that is treated and sent to the distribution systems. Chart 1 below shows the raw water takings compared to the treated water distributed to the distribution system for the first quarter of 2020.

Chart 1: Average daily water takings compared to treated water distributed to the distribution system



Raw water is sampled on a weekly basis and tested for E. coli and Total coliforms as per regulatory requirements. There are no limits identified in the regulations for E. coli and total coliform found in the raw water source. Table 1 below identifies the sample results for the first quarter.

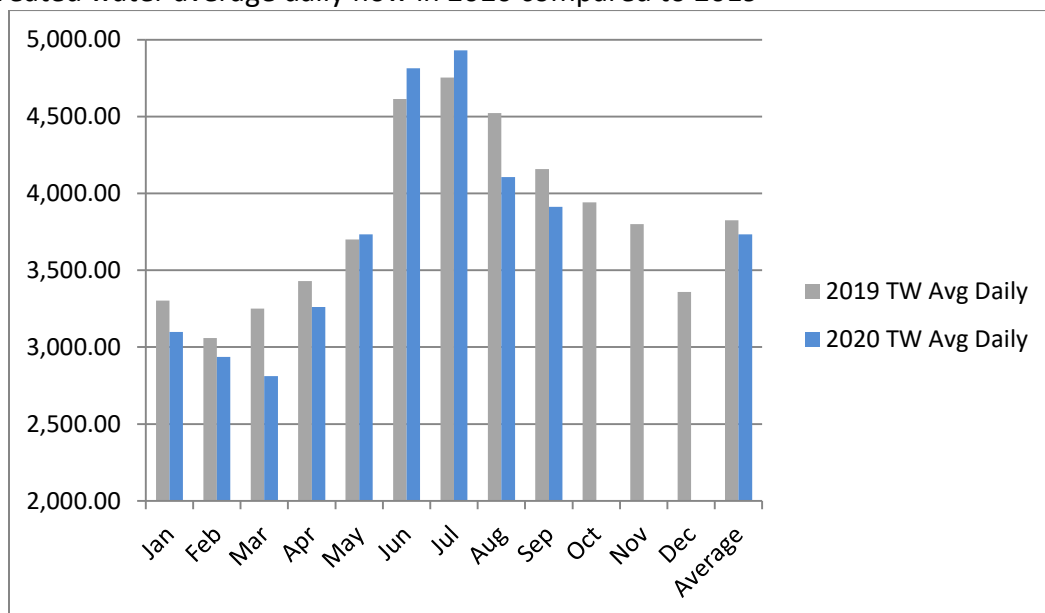
Table 1: Raw water sample results 2020

	# Samples	E. Coli Range (cfu/100mL)	Total Coliform Range (cfu/100mL)
January	4	9-100	210 - 10100
February	4	<10-10	100 - 1600
March	5	<10-100	60-4900
April	4	<10-10	140-370
May	4	<10-100	<10-900
June	5	20-100	<10-200
July	4	<10-<10	<10-80
August	5	<10-<10	<10-600
September	4	<10-100	20-120

*NDOGT- no data, overgrown with target bacteria

The raw water is treated through membrane filtration and chlorine disinfection. The treated water is distributed to the systems it serves though the high lift pumps. The average daily treated water so far for 2020 was 3,733.8m³/d. The average treated water flow for 2020 is up 4.9% when compared against the average daily flow for 2019. The Tri-County Drinking Water System is currently at 30.7% of its rated capacity. Chart 2 below depicts the treated water flow for 2020 compared to 2019 average daily flows.

Chart 2: Treated water average daily flow in 2020 compared to 2019



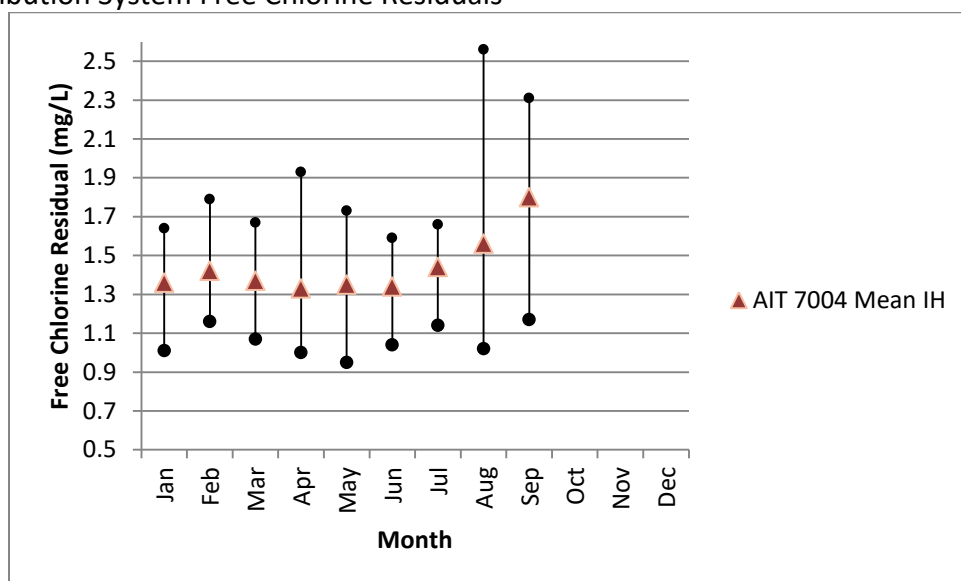
To ensure inactivation of viruses, bacteria and microorganisms the membrane filtration system is required to meet performance criteria for filtered water turbidity of less than or equal to 0.1 NTU in 99% of the measurements each month. The Tri-County Water Treatment Plant met all regulatory requirements for inactivation during the first quarter of 2020. Table 2 below shows the performance of each filter rack and the overall filter rack performance.

Table 2: Filter Rack Performance in 2020

	Rack 1 % Readings <0.1ntu	Rack 2 % Readings <0.1ntu	Rack 3 % Readings <0.1ntu	Rack 4 % Readings <0.1ntu	Overall Filter Performance (% readings <0.1ntu)
January	99.88	99.84	99.99	99.88	99.90
February	99.93	99.80	100.00	99.99	99.92
March	99.92	99.78	99.99	100.00	99.82
April	99.95	99.88	100.00	100.00	99.89
May	99.96	99.83	100.00	99.96	99.94
June	99.95	99.79	100.00	99.87	99.91
July	99.97	99.85	99.99	99.94	99.94
August	99.95	99.86	99.99	99.53	99.88
September	100.00	99.95	99.97	99.71	99.93

Along with turbidity, chlorine residuals are monitored throughout the treatment process by continuous online free chlorine analyzers. Residuals are maintained in order to provide adequate primary disinfection to meet inactivation of viruses, bacteria and microorganisms. The chlorine also provides adequate residuals in the distribution systems the treatment plant serves (secondary disinfection). Chart 3 below provides the online minimum, maximum and average readings of free chlorine provided to the distribution systems. All results have met regulatory requirements.

Chart 3: Distribution System Free Chlorine Residuals



On a weekly basis the treated water is tested for E. coli, Total Coliforms and heterotrophic plate count (HPC). The limit for Total Coliform and E. coli is zero; heterotrophic plate count (HPC) doesn't have a limit. This is an operational guide to initiate an action plan if HPC results are continuously high. Table 3 below shows the number of samples taken each month along with the range of results. All samples have met regulatory requirements.

Table 3: Treated water sample results for 2020.

	# Samples	Total Coliform Range (cfu/100mL)	E. coli Range (cfu/100mL)	HPC (cfu/100mL)
January	4	0 - 0	0 - 0	<10 - <10
February	4	0 - 0	0 - 0	<10 - <10
March	5	0 - 0	0 - 0	<10 - <10
April	4	0 - 0	0 - 0	<10 - <10
May	4	0 - 0	0 - 0	<10 - <10
June	5	0 - 0	0 - 0	<10 - 30
July	4	0 - 0	0 - 0	<10 - <10
August	5	0 - 0	0 - 0	<10 - <10
September	4	0 - 0	0 - 0	<10 - <10

The transmission main (distribution system) is sampled on a weekly basis at two locations for E. coli, Total Coliforms and heterotrophic plate count (HPC) to meet regulatory requirements. As with the treated water the limit for Total Coliform and E. coli is zero, heterotrophic plate count (HPC) doesn't have a limit. This is an operational guide to initiate an action plan if HPC results are continuously high. Table 4 below shows the number of samples taken each month along with the range of results.

Table 4: Distribution system sample results for 2020.

	# Samples	Total Coliform Range (cfu/100mL)	E. coli Range (cfu/100mL)	HPC (cfu/100mL)
January	8	0 - 0	0 - 0	<10 - <10
February	8	0 - 0	0 - 0	<10 - <10
March	10	0 - 0	0 - 0	<10 - <10
April	8	0 - 0	0 - 0	<10 - <10
May	8	0 - 0	0 - 0	<10 - <10
June	10	0 - 0	0 - 0	<10 - <10
July	8	0 - 0	0 - 0	<10 - 20
August	10	0 - 0	0 - 0	<10 - 20
September	8	0 - 0	0 - 0	<10 - <10

On a quarterly basis trihalomethanes are tested at two locations in the system. The first location is at the treatment plant prior to the water leaving the facility. The second location is at the end of the system, at the West Lorne Standpipe. Sampling from both locations provides information on how the THMs are forming in the system with retention time. There is an issue with elevated THMs in the distribution systems that the Tri-County Drinking Water System provides water to. Table 5 below provides the running average quarterly results; the running average limit for THMs is 100µg/L. All results are within regulatory requirements. However, THMs increase with increased retention time therefore THMs in the distribution system the WTP serves can be much higher, even reaching the regulatory limit.

Table 5: Trihalomethane sampling results.

	Limit (µg/L)	Treated Water THM Result (µg/L)	West Lorne Standpipe THM Result (µg/L)
October 2019		49	63
January 2020	100	18	31
April 2020	100	21	33
July 2020	100	27	8.2
Running Average	100	28.8	33.8

On a quarterly basis Haloacetic Acids (HAAs) are now required to be tested as per regulatory requirements. They are sampled at two locations in the system. The first location is at the treatment plant prior to the water leaving the facility. The second location is at the end of the system, at the West Lorne Standpipe. Sampling from both locations provides information on how the HAAs are forming in the system with retention time. Table 6 below provides the current running average quarterly results; the running average limit for HAAs is 80µg/L. All results are within regulatory requirements however, the limits are now enforced for 2020.

Table 6: Haloacetic Acid sampling results.

	Limit (µg/L)	Treated Water HAA Result (µg/L)	West Lorne Standpipe HAA Result (µg/L)
October 2019		26.2	36.8
January 2020	80	<5.3	14.3
April 2020	80	<5.3	8.5
July 2020	80	12	21.3
Running Average	80	12.2	20.2

SECTION 5: OCCUPATIONAL HEALTH & SAFETY

FIRST QUARTER:

Due to the COVID-19 pandemic, which has been brought to the attention of all OCWA staff; precautionary protection measures have been implemented at all facilities. In addition to the mandatory PPE worn by all operational staff, the following additional steps were taken to assure safety:

- Additional PPE and supplies were sourced as applicable.
- The frequency of facility and vehicle cleaning and surface disinfection was increased and documented
- Staff re-organization was implemented to meet social distancing requirements where applicable.
- Facility access to essential contractors and/or delivery personal are closely monitored.

There were no additional Health & Safety issues identified during the first quarter.

SECOND QUARTER:

There were no Health & Safety issues identified during this quarter.

THIRD QUARTER:

There were no Health & Safety issues identified during the third quarter.

SECTION 6: GENERAL MAINTENANCE

FIRST QUARTER:

JANUARY:

- 04: Air Liquide on site to deliver CO2.
- 04: Completed repair of valve v3306 on rack #3.
- 08: FloChem on site for chemical delivery.
- 14: Changed pH and chlorine probes at analyzer AIT5006.
- 23: Venture Automation was on site to check air manifold cards on racks.
- 29: Eramosa on site to test High Lift pump #4 and do programming.

FEBRUARY:

- 03: Changed actuator on rack #3 valve V3*06.
- 06: Changed the belt on air makeup unit, and installed new coolant heat pump on low lift generator.
- 10: Air Liquide on site to deliver CO2.

13: Kone Crane on site for inspection of mono rail lifting device.
18: Gerber Electric on site to install new motor on heat pump.
19: Franklin Empire on site to calibrate milltronics.
24: Air Liquide on site to deliver CO2.
25: Installed new pH and ORP probe on neutralization tank.

MARCH:

02: Installed and calibrated new chlorine probe at chlorine analyzer AIT -2003.
04: Gardner Denver on site to do maintenance on compressors.
11: Lakeside on site to calibrate thermometer TIT 1403 at the low lift.
16: Air Liquide on site for CO2 delivery.
18: Flowmetrix on site to calibrate flow meters.
19: Installed and calibrated new pH probe on Chlorine analyzer 7001.
24: Anchem on site for chlorine (NaOCl) delivery.

SECOND QUARTER:

APRIL:

01: Captor chemical delivery.
02: Brown's enterprise onsite at Silver Clay chamber to fix drain pipe for sump pump.
02: Completed monthly meter readings.
07: ASL Roteq onsite to remove and rebuild low lift pump #3.
07: Install new pH probe on AIT-7004.
08: ASL Roteq onsite to remove and rebuild low lift pump #3.
08: Air Liquide onsite for CO2 delivery.
08: Calibrated Cl analyzer AIT7001
09: Flowmetrix onsite to check meter at Eagle East chamber.
20: Chlorine residual adjusted and set higher for hydrant flushing.
27: Flowmetrix onsite to fix water meters at Silver Clay and Pioneer.
28: Eramosa onsite to work on SCADA remote sites.
30: Air Liquide onsite to deliver CO2.

MAY:

01: Lowered chlorine residual set point as spring flushing is complete.
05: Installed new sump pump in Pioneer chamber.
12: Pre-chlorination system started at low lift. Residual set to 0.40mg/L.
13: pH and chlorine analyzer at low lift, AIT1401 calibrated and electrolyte added.
13: Chlorine residual at plant lowered due to pre-chlorination at low lift.
15: Gerber Electric onsite for maintenance on cooling system.
21: Air Liquide onsite for CO2 delivery.
28: Gerber Electric onsite to install VFD on low lift pump #3.

JUNE:

01: VFD solutions onsite for troubleshooting for highlift pump 4.
09: Started chamber inspections.
10: Completed chamber inspections.
11: Gerber Electric onsite to check wire connections.
15: Air Liquide onsite to deliver CO2.

16: Schneider Electric onsite to fix power corrector.
17: Pall onsite to perform health check analysis on Pall system.
18: Pall onsite to perform health check analysis on Pall system.
19: Albert's Generator onsite to perform annual generator maintenance.
22: Gerber Electric onsite to install new air conditioning unit.
23: Gerber Electric onsite to install new air conditioning unit.
24: Gerber Electric onsite to finish installation of new air conditioning unit.
25: Flochem onsite for chemical delivery.
25: Gerber Electric onsite to perform work on low lift pump #3.
29: Closed valve at Silver Clay chamber and Marsh Line chamber to push more water down Marsh Line East.
30: Hach onsite for membrane maintenance for turbidimeters.

THIRD QUARTER:

JULY:

02: Anchem on site for chlorine delivery.
07: Gerber Electric on site to install new turbidity meter at low lift.
14: H2Flow on site to do maintenance on UV system.
23: Eramosa on site to program new VFD LL#3.
30: H2Flow on site for UV maintenance.

AUGUST:

04: Gerber was on site to install line reactor on HL pump# 4.
18: Hurricane was on site for low lift wet well cleaning.
19: Hurricane was on site for low lift wet well cleaning.
20: Hurricane was on site to clean settling tank.
21: Hurricane was on site to clean settling tank.
25: Elgin Fire was on site to inspect fire extinguishers.

SEPTEMBER:

02: Farmington onsite to replace backflow preventers at low lift. Eramosa onsite to preform work in PLC panel in MCC room.
03: ASL Roteq onsite to observe low lift pump 3.
14: Manitoulin transport was on site to deliver chlorine gas.
22: Anchem is on site to deliver NaOCl.
23: ASL was on site to take HL pump # 3 for repair.
29: PowerCore Engineering onsite for main power meter replacement. Hurricane onsite for settling pond cleaning at the low lift.

SECTION 7: ALARM SUMMARY

FIRST QUARTER:

JANUARY:

05: Operator received alarm for AIT-7004 analyzer low chlorine residual. Operator attended the site, chlorine was 0.99 mg/l, tested analyzer and got a grab sample of 1.02 mg/l, calibrated meter to 1.02 mg/l and tested AIT-7001 chlorine analyzer it was 1.16 mg/l and grab sample was 1.31 mg/l calibrated this meter. Started high lifts to allow flow to distribution system and the analyzer is now reading 1.27 mg/l. Notified ORO.

31: Operator received page for PALL critical failure. Operator came on site and found that rack # 1,2,3 disabled due to high pressure. Able to get rack 1 & 2 running but rack 3 air scrub valve V3306 faulting unable get the valve working, notified ORO and asked to put rack 3 in idle and rack 4 into forward flow. Monitor system.

FEBRUARY:

11: Operator received alarm, PALL system critical. Logged in on SCADA laptop and found Rack # 2 was idle and rack #3 was disabled due to high pressure. Reset the system, put rack # 2 and 3 on forward flow and started to produce water.

MARCH:

15: Operator got alarm for High Lift and Low Lift pump faulted. Operator attended the water plant and reset pumps and plant started to produce water. Completed rounds, checked all systems for normal operation. Suspected power flicker was the cause.

29: Operator received alarm for water storage low level. Arrived on site because could not remotely access the SCADA. After investigation still could not able access the SCADA, notified ORO, advised to reset SCADA and PLC. After resetting PLC the situation did not resolve. Notified ORO and was advised to call Eramosa. Eramosa was not able to remotely access system. After investigation found a UPS battery that's responsible for remote access was not functioning; replaced UPS with a power bar. System returned to normal. SCADA up and running and plant started to produce water again. Storage tanks level was below 6.4m. Tested remote access; works well now. Monitored system until out of alarm and reset dialer.

SECOND QUARTER:

APRIL:

11: Operator received call from spectrum for low storage tanks at 16:15. Logged onto SCADA and observed storage tank at 6.46M and high lifts were pumping water to Wallacetown. Pall system was not making water; reset low lifts and Pall system started. Turned off high lift pumps to Wallacetown (currently at 10.01M) and changed low lift set-points in order to have only one low lift pump on. System currently now making water, will continue to monitor system remotely.

MAY:

05: Alarm for Wallacetown high level, high lift pumps were sending water to West Lorne in order to fill Rodney. Changed set-points to turn off high lift pumps.

09: Alarm for high lift and low lift pump fault. Logged onto SCADA and reset pumps. Arrived at the plant to ensure all systems were working as designed. Pump fault due to power flicker.

13: Alarm for discharge turbidity high high now normal. Logged onto SCADA and found the discharge turbidity spiked after the start-up of high lift pumps. The turbidity now normal.

JUNE:

06: Alarm for storage tank fault. Logged onto SCADA and observed storage tank at 6.38m, reset communication fault from CP1000 to CP2000. System started up and is now producing water. Operator to monitor remotely.

10: Alarm for power outage. Logged onto SCADA remotely and reset low lift pumps. On route to plant received a call for loss of communication with Wallacetown. Dutton-Dunwich operator was contacted and communication was restored. Plant was operating on normal power upon arrival and operating as designed. Currently sending water to both Wallacetown and West Lorne and producing water.

11: Alarm for power outage. Logged onto SCADA and reset low lift pumps, also observed plant was running on generator power. On route to plant observed a tree had fallen onto the power line down the road from plant. Contacted Hydro One and left site as power was expected to be restored at a later time. Received call from Hydro One stating power was back on, upon arrival to site power had cycled twice and therefore placed power input to only generator. Returned facility back to normal power, currently making water and sending to Wallacetown.

12: Alarm for generator running. Arrived onsite, power had returned to normal. Observed a communication error with low lift. Went to low lift and reset a tripped breaker in PLC cabinet and communication had been restored. Returned to plant and reset low lift pumps, plant now producing water and sending water to West Lorne.

21: Alarm for channel 32, less than 3 high lift pumps available. Found high lift pump #1 and #4 to be in fault. Reset both pumps and placed high lift pump #1 in manual due to pump not opening and closing properly.

THIRD QUARTER:

JULY:

13: Alarm for chlorine analyzer AIT 5006 fault. Operator came on site. Reset low lift pumps. Put chlorine pump on 100%. Start the system. After chlorine on AIT 5006 start to go up, put pump on auto and working as normal.

26: Operator received call from spectrum for west Lorne standpipe general alarm. Logged onto SCADA and observed high lift pumps to be in fault. Reset high lift pumps, high lift pump 1 and high lift pump 2 then started to fill west Lorne and Wallacetown. West Lorne currently at 28.62m and Wallacetown at 8.3 and both filling. West Lorne now out of low level at 30.34m. Will continue to monitor remotely. Most likely due to high temperatures and weather causing brown out.

28: Received page for Wallacetown communication fail, notified ORO, and called Dutton on-call operator. Operator from Dutton went onsite to reset the router, and communication was restored. Channel 67 back to normal and alarm dialer reset.

AUGUST:

16: Operator received call from spectrum for no communication. Arrived at plant and observed no communication to low lift, and high lifts had faulted out. West Lorne standpipe at 30.9m and Wallacetown at 9.18m, storage tanks at 8.9m. Reset high lift pumps, placed MV-7021 in manual to close valve, then placed back into auto. High lift pumps started back up and sending water to West Lorne. Went to low lift. No communication in CP1000 cabinet. Turned breakers in cabinet off, reset CP1000 breaker from main panel and turned all breakers in cabinet back on. Low lift communication was restored. Went back to plant and reset remaining three low lift pumps from SCADA. Plant got back to normal operation. Everything happened because of power flicker.

22: Operator received alarm channel 24 alarm, UV reactor 1 fault. Arrived on site. Find the wipers were faulted. Could not reset it. Called ORO to notify him. Checked UV reactor # 2 to verify it is working properly. Reset Dialer and left site.

SEPTEMBER:

29: UV chlorine analyzer fault. Logged in on SCADA. Chlorine was 5.00 mg/l. Reset low lift pump, started to produce water. In 3 min after LL pump started chlorine got back to normal. Monitored the system for 15 min to make sure everything is working properly.

SECTION 8: COMMUNITY COMPLAINTS & CONCERNS

FIRST QUARTER:

There were no complaints or concerns this quarter.

SECOND QUARTER:

There were no complaints or concerns this quarter.

THIRD QUARTER:

There were no complaints or concerns this quarter.

SCRIMGEOUR & COMPANY
CPA PROFESSIONAL CORPORATION

December 3, 2020

**Members of Council
Municipality of West Elgin
P.O. Box 490
R.R. #1
Rodney, ON
N0L 2C0**

Dear Sirs:

As you are aware, my contract for audit services will expire on December 31, 2020. I would like to thank Council for their support over past several years. As a demonstration of my commitment to the Municipality of West Elgin, I am proposing to extend my contract for audit services for the next five years at similar fees that have been in effect for the last several years.

My fee for the audit of the Municipality of West Elgin is currently \$17,500 plus an additional \$2,500 for the preparation of the EFIR/MPMP for submission to the Ministry of Municipal Affairs and Housing. I am proposing an increase to the audit fee only to \$18,500. The EFIR/MPMP fee will not increase.

Currently, my firm audits the Tri-County Water System for a fee of \$3,700. This fee will also not increase. I recognize this will be a decision of the Board.

If you have any questions regarding this letter, please do not hesitate to contact my office.

Sincerely,



Christene A. Scrimgeour, CPA, CA, BA
SCRIMGEOUR & COMPANY
CPA PROFESSIONAL CORPORATION



2020 General Insurance Program TRI-COUNTY WATER BOARD

Renewal Report for the Policy Term December 17, 2020 to December 17, 2021

Prepared by:
Aran Myers
Regional Manager

Ref 04180/rc

11 November 2020

75 Main Street North
Princeton, ON N0J 1V0
1-800-265-4000
frankcowan.com

ABOUT FRANK COWAN COMPANY

Frank Cowan Company is a leader in providing specialized insurance programs, including risk management and claims services to municipalities, healthcare, education, community, children's and social service organizations across Canada. Proven industry knowledge, gained through over nine decades of partnering with insurance companies and independent brokers, gives Frank Cowan Company the ability to effectively manage the necessary risk, advisory and claims services for both standard and complex issues.

Frank Cowan Company is a Managing General Agent (MGA) with the authority to write and service business on behalf of strategic partners who share our commitment and dedication to protecting specialized organizations. Because our partners are long-term participants on our program, they understand the nature of fluctuating market conditions and complex claims and are prepared to stay the course.

CANADIAN OWNED COMPANY WITH 90+ YEARS OF CONTINUOUS OPERATION

MARKET LEADER

MUNICIPAL & SPECIALTY CLIENTS

Municipal market share leader in Ontario with strong representation of public entity and specialty clients across Canada.

INNOVATIVE

NEW PRODUCTS & SERVICES

Active Assailant
Cyber Risk Insurance
Fraudulently Induced Transfer
Road Reviews
Fleet Management

IN-HOUSE

CLAIMS & RISK MANAGEMENT

In-house claims management = faster turn around, single point of contact, specialized expertise in the municipal claims environment.

Go above and beyond with complimentary risk management services such as contract reviews, inspections and the Centre of Excellence.



THE ADVANTAGE OF A MANAGING GENERAL AGENT

The MGA model is different than a traditional broker/insurer arrangement in that an MGA provides specialized expertise in a specific, niche area of business. As an MGA we also offer clients additional and helpful services in the area of risk management, claims and underwriting. And unlike the reciprocal model, a policy issued by an MGA is a full risk transfer vehicle not subject to retroactive assessments but rather a fixed term and premium.

We invite you to work with a partner who is focused on providing a complete insurance program specific to your organization that includes complimentary value-added services that help drive down the cost of claims and innovative first to market products and enhancements. You will receive personalized service and expertise from a full-service, local and in-house team of risk management, claims, marketing and underwriting professionals.

As a trusted business partner, we believe in participating in and advocating for the causes that affect our clients. For this reason, we affiliate with and support key provincial and national associations. In order for Frank Cowan Company to be effective in serving you, we, as an MGA, believe in fully understanding your needs, concerns and direction. Our support is delivered through thought leadership, financial resources, advocacy, services, education and more.

RISK MANAGEMENT SERVICES

We are the leader in specialized risk management and place emphasis on helping your organization develop a solid plan to minimize exposure before potential incidents occur. Risk management is built into our offerings for all clients, fully integrated into every insurance program. Our risk management team is comprised of analysts, inspectors and engineers who use their expertise to help mitigate risk. We do everything we can to minimize your exposure before potential incidents occur. This includes providing education, road reviews, fleet reviews, contract analysis and property inspections.

CLAIMS MANAGEMENT SERVICES

Our in-house team of experts has the depth of knowledge, experience and commitment to manage the complicated details of claims that your organization may experience. You deal with the public often in sensitive instances where serious accusations can be made. Your claims are often long-tail in nature and can take years to settle. Some claims aren't filed until years after the occurrence or accident. You want a team of professionals on your side that will vigorously defend your reputation. We understand your risks and your exposures and have maintained a long-term commitment to understanding the complex issues your organization may face so that we can better service your unique claims requirements.



***Please note that the information contained in this document is proprietary and confidential and is to be used for the sole purpose of determining the successful proponent. Permission must be obtained from Frank Cowan Company prior to the release of any information contained herein for any other purpose than evaluating this submission.**

Schedule of Coverage

(Coverage is provided for those item(s) indicated below)

Casualty

Coverage Description	(\$) *Deductibles	(\$) Limit of Insurance
General Liability (Occurrence Form) <i>Broad Definition of Insured</i>	5,000	15,000,000 Per Claim No Aggregate
Wrongful Dismissal (Legal Expense – Claims Made)	5,000	250,000 Per Claim 250,000 Aggregate
Forest Fire Expense	Nil	1,000,000 1,000,000 Aggregate
Sewer Backup	5,000 Per Claimant	Included
Errors & Omissions Liability (Claims Made Form)	5,000	15,000,000 Per Claim No Aggregate
Non-Owned Automobile Liability		15,000,000
Legal Liability for Damage to Hired Automobiles	1,000	250,000
*Your deductible may be a Deductible and Reimbursement Clause (including expenses) refer to Policy Wordings		

Crime

Coverage Description	(\$) Deductibles	(\$) Limit of Insurance
Employee Dishonesty –Form A (Commercial Blanket Bond)		1,000,000
Loss Inside the Premises (Broad Form Money & Securities)		200,000
Loss Outside the Premises (Broad Form Money & Securities)		200,000
Audit Expense		200,000
Money Orders and Counterfeit Paper Currency		200,000
Forgery or Alteration (Depositors Forgery)		1,000,000

Schedule of Coverage

(Coverage is provided for those item(s) indicated below)

Property

**Coverage is on an All Risk Basis unless otherwise specified.
Basis of Settlement is Replacement Cost unless otherwise specified
The Deductible is on a Per Occurrence Basis**

Coverage Description	(\$) Deductibles	Basis	(\$) Limit of Insurance
Property of Every Description - Blanket	5,000	RC	22,122,900

Property Supplemental Coverage

(Included in the Total Sum Insured unless otherwise specified in the wording)

Building By-laws	5,000	Included
Building Damage by theft	5,000	Included
Debris Removal	5,000	Included
Electronic Computer Systems		
Electronic Computer Hardware and Media	5,000	Included
Electronic Computer Systems Breakdown		Not Insured
Electronic Computer Systems – Extra Expense		Not Insured
Extra Expense Period of Restoration	5,000	90 Days
Expediting Expense	5,000	Included
Fire or Police Department Service Charges	5,000	Included
First Party Pollution Clean-up	5,000	Included
Fungi and Spores	5,000	10,000
Furs, Jewellery and Ceremonial Regalia		
Ceremonial Regalia	5,000	Included
Furs and Jewellery	5,000	25,000
Inflation Adjustment	5,000	Included
Live Animals Birds or Fish	5,000	25,000
Newly Acquired Property	5,000	Included

Professional Fees	5,000	Included
Property and Unnamed Locations	5,000	Included
Property Temporarily Removed Including while on Exhibition and during Transit	5,000	Included
Recharge of Fire Protection Equipment Expense	5,000	Included
Sewer Backup and Overflow	5,000	Included

Public Entity Extension Endorsement (In Addition to the Total Sum Insured unless specifically scheduled in the wording)		
Accounts Receivable	5,000	500,000
Bridges and Culverts	5,000	50,000
Buildings Owned due to Non Payment of Municipal Taxes		Not Insured
Buildings in the Course of Construction Reporting Extension	5,000	1,000,000
By Laws – Governing Acts	5,000	25,000
Consequential Loss Caused by Interruption of Services		
On Premises	5,000	Included
Off Premises	5,000	50,000
Cost to Attract Volunteers Following a Loss	5,000	10,000
Docks, Wharves and Piers	5,000	100,000
Errors and Omissions	5,000	Included
Exterior Paved Surfaces	5,000	50,000
Extra Expense	5,000	500,000
Fine Arts		
At Insured's Own Premises	5,000	25,000
On Exhibition	5,000	25,000
Fundraising Expenses	5,000	10,000
Green Extension	5,000	50,000
Growing Plants		
Any One Item	5,000	1,000
Per Occurrence	5,000	100,000
Ingress and Egress	5,000	Included

Leasehold Interest	5,000	25,000
Master Key	5,000	25,000
Peak Season Increase	5,000	25,000
Personal Effects	5,000	25,000
Property of Others	5,000	25,000
Rewards: Arson, Burglary Robbery and Vandalism	5,000	25,000
Signs	5,000	Included
Vacant Property	5,000	1,000,000
Valuable Papers	5,000	500,000
Business Interruption		
Rent or Rental Value	5,000	500,000
Additional Endorsements		
Virus and Bacteria Exclusion	Not Applicable	Included
Earthquake – Other Property	5,000	Included
Earthquake – Buildings	Not Applicable	Excluded
Flood – Other Property	5,000	Included
Flood – Buildings	Not Applicable	Excluded
(\$ Total Amount of Insurance		24,692,900
RC = Replacement Cost ACV = Actual Cash Value VAL = Valued		

Schedule of Coverage

(Coverage is provided for those item(s) indicated below)

Equipment Breakdown (TechAdvantage)

Coverage Description	(\$) Deductibles / Waiting Period	(\$) Limit of Insurance
Direct Damage	5,000	50,000,000 Per Accident
Extra Expense		500,000
Spoilage		50,000
Expediting Expense		Included
Hazardous Substances		500,000
Ammonia Contamination		500,000
Water Damage		500,000
Professional Fees		500,000
Civil Authority or Denial of Access		30 days
Errors and Omissions		250,000
Data Restoration		50,000
By-Law Cover		Included
Off Premises Transportable Object		10,000
Brands and Labels		100,000
Green Coverage		50,000
Environmental Efficiency *Will not show on Declarations Page		Up to 150% of Loss
Anchor Locations		Included
Service Interruption *Will not show on Declarations Page		Included Within 1000 metres

Account Premium

<i>Prior Term</i>	<i>Total Annual Premium (Excluding Taxes Payable)</i>	\$ 14,481	Total Annual Premium (Excluding Taxes Payable)	\$ 18,285
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Please refer to the insurance contract for all limits, terms, conditions and exclusions that apply. The premium Quoted is subject to a 15% minimum retained (unless otherwise stated).

Note: Account Is Subject to Response from Covid-19 General Supplemental Application Form.

Cost Analysis

	Expiring Program Term	Renewal Program Term
Casualty		
General Liability	\$ 4,735	\$ 5,445
Errors and Omissions Liability	2,500	2,750
Non-Owned Automobile Liability	100	100
Crime	500	515
Property		
Property	4,736	7,293
Equipment Breakdown	1,910	2,182
<u>Total Annual Premium</u>	\$ 14,481	\$ 18,285
(Excluding Taxes Payable)		

CHANGES TO YOUR INSURANCE PROGRAM

Please be advised of the following changes to your insurance program that now apply:

General Policy Change

- Effective January 1, 2020 we have updated Form GNGX408 which attaches to all policies where Lloyds is a participating carrier. The 'Notice Concerning Personal Information' section has been updated. A Sanctions Limitation and Exclusion clause has also been added to this form.

Property Policy

- Building values have been increased in order to reflect inflationary trends.
- **Virus and Bacteria Exclusion**

Frank Cowan Company is adding a virus and bacterial exclusion to property policies effective August 1st, 2020 for new business and October 1st, 2020 for renewals.

Previously we've communicated that our property coverage requires there to be a direct physical loss or direct physical damage subject to the policy terms and conditions and that business interruption coverage will not be triggered for a loss caused by a virus or bacteria.

The endorsement now clarifies that we exclude any virus, bacterium or other micro-organism that induces or is capable of inducing physical distress, illness or disease. The exclusion also stipulates that this exclusion supersedes any exclusion or coverage granted relating to 'pollutants' or 'contagions'.

The exclusion applies to all locations and all property policies and coverage including business interruption coverage, builders risk coverage, miscellaneous or other property coverage "form(s)" and any extensions, clauses or additions of coverage attached to and forming part of this policy, including exceptions to exclusions attached to these policies.

PROGRAM OPTIONS

1. **Crime Coverage – Other Optional Coverages**

Other Optional Coverages are also available. See attached Crime Cover Options page for further details.

Quote is available on request (completed application is required).

2. **Crime Coverage – Fraudulently Induced Transfer Coverage**

Fraudulently Induced Transfer Coverage is now available. Covers a loss when an Insured under the policy has been intentionally misled by someone claiming to be a vendor, client or another employee of the company and the Insured has transferred, paid or delivered money or securities to this third party.

For Coverage information and available options refer to the Fraudulently Induced Transfer Endorsement Coverage Highlights Sheet.

3. **Remotely Piloted Aircraft Systems (UAV) Coverage**

Property and/or Liability Cover may be available for Remotely Piloted Aircrafts (UAV).

Application required to quote.

For Coverage information refer to the Remotely Piloted Aircraft (UAV) Highlight Sheet.

4. **Active Assailant and Associated Coverages**

Frank Cowan Company has partnered with XLCatlin, a market leader in writing Terrorism Risk, to offer a suite of Terrorism and Associated Coverages.

You have the option to select one or any combination of the following (Separate Policies):

- Active Assailant Event Insurance
- Chemical, Biological, Radiological and Nuclear (CBRN) Insurance
- Terrorism Property Insurance
- Terrorism Liability Insurance

For coverage information, please refer to the Terrorism and Associated Coverage Options.

An application is required to quote.

5. **Property Coverage – Earthquake and Flood Extension to Buildings/Property Insurance**

Earthquake coverage on other property (property other than buildings) is currently included subject to a deductible of \$ 5,000. Earthquake coverage is available on buildings for an additional annual premium.

Flood coverage on other property (property other than buildings) is currently included subject to a deductible of \$ 5,000. Flood coverage is available on buildings for an additional annual premium

Quote is available upon request.

Description of Coverage

Frank Cowan Company offers a Comprehensive Insurance Program to meet your needs.

"Your Insurance Coverage" provides a schedule of proposed coverages, limits and deductibles included in this proposal.

Highlights of coverage follow providing a summary of coverage. Highlight pages may include description of optional coverages.

The information in this notice is intended for informational purposes only. For full details with respect to coverage, exclusions, conditions and limitations refer to the policy wordings. While coverage may be quoted, once a policy is issued coverage is only applicable if shown on Declaration Page or Schedule of Coverage.

GENERAL LIABILITY HIGHLIGHTS

OVERVIEW

- Insures against liability imposed by law for damages because of bodily injury or death to any person resulting from the operations of the Corporation and for damages to or destruction of property of others caused by an accident.
- Insures against liability imposed by law for damages because of Personal Injury sustained by any person caused by false arrest, detention or imprisonment, malicious prosecution, libel, slander, defamation of character, humiliation, invasion of privacy, wrongful eviction, wrongful entry and discrimination.

FEATURES

- No annual aggregate limits.
- Bodily Injury, Property Damage, Products & Completed Operations Liability.
- Included as Insured's are Board Members, Employees, Volunteers while performing their duties as such.
- Blanket Tenants' Legal Liability included.
- Abuse Liability Extension (Occurrence Form, Aggregate Limit).
- Advertisers Liability included.
- Employers Liability included.
- Forest Fire Expense.
- Medical Payments.
- Environmental Liability Exclusion.
- If Applicable, refer to the attached Additional Insured(s) form.

The information in this notice is intended for informational purposes only. For full details with respect to coverage, exclusions, conditions and limitations refer to the policy wordings. While coverage may be quoted, once a policy is issued coverage is only applicable if shown on Declaration Page or Schedule of Coverage.

PUBLIC ENTITY ERRORS AND OMISSIONS LIABILITY COVERAGE HIGHLIGHTS

PUBLIC ENTITY ERRORS AND OMISSIONS INSURANCE

Public Entity Errors and Omissions Insurance (E&O) Coverage protects risks from civil litigation caused by allegations of professional negligence or failure to perform professional duties. Errors and Omissions focuses on providing coverage when there is financial loss to a third party (rather than bodily injury or property damage as general liability does).

FEATURES

Limits	Typically limits follow that of our Liability. We have the availability to offer up to \$50,000,000.
Defence Costs	Over and above the Limit of Insurance. Whether a potential claim is baseless, or not, mounting legal expense can have serious monetary consequences for an Insured.
No Annual Aggregate	With higher out of court settlements and increased damage awards, large or even a series of small claims can quickly erode an annual aggregate limit.
Claims Made Policy	Pays for claims occurring and reported during the policy period. Our policy provides retroactive coverage (no date need be specified) and stipulates that a claim is first known only when written notice is first received.
Claims Definition	The definition of claim also includes arbitration, mediation or alternative dispute resolution proceedings.
Insured Definition	Includes Councilors, Statutory Officers, Council Committees, Firefighters, Employees and Volunteers.

COVERAGE IS PROVIDED FOR UNIQUE EXPOSURES

Insurance	No exclusion for failure to procure or maintain adequate insurance bonds or coverage (e.g. construction projects).
Benefit Plans	Errors or Omissions in administering Employee Benefit Plans are covered.
Misrepresentations	Municipal governments are required to provide information with respect to local matters and must ensure the information which is provided is accurate, true and not misleading. Our definition of a Wrongful Act covers misstatements or misleading statements.
Other Specialists and Services	Covers errors or omissions when they are rendered in connection with operations that are typical of public sector such as those of building inspections, zoning, planning, developing or regulating by-laws. Officials and employees acting in good faith are often times the subject of lawsuits.

The information in this notice is intended for informational purposes only. For full details with respect to coverage, exclusions, conditions and limitations refer to the policy wordings. While coverage may be quoted, once a policy is issued coverage is only applicable if shown on Declaration Page or Schedule of Coverage.

NON-OWNED AUTOMOBILE COVERAGE HIGHLIGHTS

OVERVIEW

Non-Owned and hired automobile liability insurance covers bodily injury and property damage caused by a vehicle not owned by the Insured (including rented or borrowed vehicles). Coverage is provided for Third Party Liability arising from the use or operation of any automobile not owned or licensed in the name of the Insured if it results in bodily injury (including death), property damage (if the property was not in possession of the Insured) to a third party.

FEATURES

SEF No. 96 Contractual Liability:

- When renting a vehicle you engage in a contractual relationship with the rental company where you assume liability for the operation of the automobile. It is therefore important that contractual coverage is added to the policy by way of an endorsement known as SEF (Standard Endorsement Form) No. 96. Contractual Liability coverage is automatically provided for all written contractual agreements with our Non-Owned Automobile coverage.

SEF No. 99 Long Term Lease Exclusion:

- When Contractual Liability is provided under the policy there is also an exclusion for Long Term Leased vehicles SEF No. 99. This excludes coverage for vehicles hired or leased for longer than a certain period such as 30 days.

Territory:

- The Non-Owned Automobile policy provides coverage while in Canada and United States.

Termination Clause:

- The standard termination clause has been amended in that the Insured may still provide notice of cancellation at any time, however, the Insurer must provide ninety days' notice of cancellation to the Insured rather than the standard 15 or 30 days.

SEF No. 94 Legal Liability (Physical Damage) to a Hired/Rented Automobile:

- We automatically provide coverage for damage to a vehicle that you have hired or rented. Coverage is provided via endorsement SEF No. 94. We automatically provide 'All Perils' coverage. The limit of coverage will vary

ADDITIONAL INFORMATION

Courts have repeatedly held that when an automobile is used on a person's behalf or under a person's direction, that person (or entity) has a responsibility for the operation of the automobile and may be held liable for damages in the event of an accident even though he or she is not the owner or driver of the vehicle. This common law principle has been supported by a number of court decisions making an employer responsible for the use and operation of an automobile when an employee is operating an automobile (not owned by the employer) while being used for the employer's business.

The information in this notice is intended for informational purposes only. For full details with respect to coverage, exclusions, conditions and limitations refer to the policy wordings. While coverage may be quoted, once a policy is issued coverage is only applicable if shown on Declaration Page or Schedule of Coverage.

CRIME COVERAGE HIGHLIGHTS

OVERVIEW

Our crime coverage is one of the broadest and most flexible in the industry. An Insured may elect to purchase any or all of the Standard Crime Coverage we have available. In addition to the Standard crime coverage the Insured may elect to also purchase any of our Optional Coverages.

Optional Crime Coverage Includes:

- Extortion Coverage (Threats to persons and property).
- Pension or Employment Benefit Plan coverage.
- Residential Trust Fund Coverage.
- Credit Card Coverage.
- Client Coverage (Third Party Bond).
- Fraudulently Induced Transfer Coverage (otherwise known as Social Engineering). *Separate Coverage Highlights Sheet for Fraudulently Induced Transfer Coverage is available.*

For more information on our Optional Coverage refer to our Crime Coverage Options Highlight Sheet.

FEATURES OF OUR STANDARD CRIME COVERAGE

Below is a brief description of the Standard Crime Coverage an Insured may elect to purchase:

Employee Dishonesty – Form A Commercial Blanket Bond

- This protects the employer from financial loss due to the fraudulent activities of an employee or group of employees. The loss can be the result of theft of money, securities or other property belonging to the employer.

Loss Inside and Loss Outside the Premises (Broad Form Money and Securities)

- Covers loss by theft, disappearance, or destruction of the Insured's money and securities inside the Insured's premises (or Insured's bank's premises) as well as outside the Insured's premises while in the custody of a messenger.

Money Orders and Counterfeit Paper Currency

Covers Loss

- Due to acceptance of a money order that was issued (or is purported to have been issued) by a post office or express company; and
- From the acceptance of counterfeit paper currency of Canada or the United States.

Forgery and Alteration

- Covers loss due to dishonesty from a forgery or alteration to a financial instrument (cheque, draft or promissory note).

Audit Expense

- Coverage for the expenses that are incurred by the Insured for external auditors to review their books in order to establish the amount of a loss. This is a separate limit of insurance.

Computer and Transfer Fraud (Including Voice Computer Toll Fraud)

- Loss caused when money, securities, or other property is transferred because of a fraudulent computer entry or change. The entry or change must be within a computer system that the Insured owns (and on their premises).
- Loss caused when money or securities are transferred, paid, or delivered from the Insured's account at a financial institution based on fraudulent instructions (at the financial institutions premises).
- Voice computer toll fraud covers the cost of long distance calls if caused by the fraudulent use of an account code or a system password.

The information in this notice is intended for informational purposes only. For full details with respect to coverage, exclusions, conditions and limitations refer to the policy wordings. While coverage may be quoted, once a policy is issued coverage is only applicable if shown on Declaration Page or Schedule of Coverage.

PROPERTY COVERAGE HIGHLIGHTS

OVERVIEW

Property insurance is about planning for the unexpected and protecting your physical assets in order to minimize your business disruption should a loss occur. It is important that your property insurance includes broad coverage to protect these assets (e.g. buildings and other property you own, lease or are legally liable for) from direct physical loss.

We will work closely with you to customize a property coverage solution. We cover a wide variety of property, including buildings, inventory and supplies, office furniture and fixtures, computers, electronics, equipment (including unlicensed mobile equipment, maintenance and emergency equipment) and other unique property.

The Frank Cowan Company property wording is flexible and adaptable. Your policy will be comprised of a Base Property Wording and a Public Entity Extension of Coverage Endorsement as well as any miscellaneous or specific endorsements to tailor coverage to meet your needs.

FEATURES AND BENEFITS

Features and Benefits include:

- Coverage is typically written on an all-risk basis including replacement cost.
- Our standard practice is to write property on a Property of Every Description (POED) or blanket basis, however, coverage can be scheduled separately if required.
- No margins clause and no statement of values required.
- We have two Deductible Clauses: A standard Deductible Clause and a Dual Policy Deductible Clause. The Dual Policy Deductible clause states how a deductible will be applied when there is both an automobile policy and a property policy involved in the same loss (when both policies are written with Frank Cowan Company).
- Worldwide Coverage
- Unlicensed Equipment (e.g. Contractors Equipment): Automatically includes Replacement Cost as the basis of settlement regardless of age. This can be amended to an Actual Cash Value (ACV) or Valued basis if required (applicable only if the Insured owns the unlicensed equipment).
- Flood and Earthquake coverage are available.

SUPPLEMENTAL COVERAGE UNDER THE BASE PROPERTY WORDING

The Base Property Wording automatically includes numerous Supplemental Coverages such as:

- | | |
|---|---|
| • Building Bylaws | • Furs, Jewellery and Ceremonial Regalia |
| • Building Damage by Theft | • Inflation Adjustment |
| • Debris Removal Expense | • Live Animals, Birds or Fish |
| • Electronic Computer Systems | • Newly Acquired Property |
| • Expediting Expense | • Professional Fees |
| • Fire or Police Department Service | • Property at Unnamed Locations |
| • First Party Pollution Clean-Up Coverage | • Property Temporarily Removed including while on Exhibition and during Transit |
| • Fungi (covers the expense for any testing, evaluating or monitoring for fungi or spores required due to loss) | • Recharge of Fire Protective Equipment |
| | • Sewer Back Up and Overflow |

Note: The Supplemental Coverage does not increase your Total Sum Insured in most cases.

PUBLIC ENTITY EXTENSIONS OF COVERAGE ENDORSEMENT

Each Extension of Coverage has an individual Limit of Insurance and will be shown on the Summary of Coverage/Declarations Page.

The Limit of Insurance for each Extension of Coverage is over and above the Total Sum Insured (unless shown as 'included' on the declarations or otherwise stipulated within the wording).

Limits of Insurance available for each Extension of Coverage will vary based on the individual risk.

- Accounts Receivable
- Bridges and Culverts
- Building Coverage Owned Due to the Non Payment of Municipal Taxes – *Named Perils Coverage applies.*
- Building(s) in the Course of Construction Reporting Extension
- By Laws – Governing Acts
- Consequential Loss caused by Interruption of Services
- Cost to Attract Volunteers Following a Loss
- Docks, Wharves and Piers
- Errors and Omissions
- Exterior Paved Surfaces
- Extra Expense
- Fine Arts at Own Premises and Exhibition Site
- Fundraising Expenses
- Green Extension
- Growing Plants
- Ingress and Egress
- Leasehold Interest
- Master Key
- Peak Season Increase
- Personal Effects
- Property of Others
- Rewards: Arson, Burglary, Robbery and Vandalism
- Signs
- Vacant Properties – *Named Perils Coverage applies on an Actual Cash Value basis.*
- Valuable Papers

The information in this notice is intended for informational purposes only. For full details with respect to coverage, exclusions, conditions and limitations refer to the policy wordings. While coverage may be quoted, once a policy is issued coverage is only applicable if shown on Declaration Page or Schedule of Coverage.

EQUIPMENT BREAKDOWN TECHADVANTAGE HIGHLIGHTS

OVERVIEW

Property policies typically exclude losses that Equipment Breakdown Insurance is designed to cover. Equipment Breakdown Coverage insures against losses (property damage and business interruption) resulting from 'accidents' (as defined in the wording) to various types of equipment such as pressure, mechanical, electrical and pressure equipment (called "objects" in the policy). Coverage also extends to electronic equipment for 'electronic circuitry impairment'. Coverage typically extends to production machinery unless specifically excluded.

FEATURES

Coverage is extended to pay for:

Property Damage: The cost to repair or replace damaged equipment or other covered property, including computers, due to a covered accident.

Business Income: The loss of business income due to an interruption caused by a covered accident from the date of loss until such equipment is repaired or replaced or could have been repaired or replaced plus additional time to allow your business to become fully operational.

Extra Expense: Additional costs (e.g., equipment rental) you incur after a covered loss to maintain normal operations.

Expediting Expenses: The cost of temporary repairs or to expedite permanent repairs to restore business operations.

Service Interruption: Business income and extra expense resulting from a breakdown of equipment owned by a supplier with whom the Insured has a contract to supply a service. If there is no contract, the equipment must be within 1000 metres of the location.

Data Restoration: The restoration of data that is lost or damaged due to a covered loss.

Demolition: Building demolition and rebuilding required by building laws.

Ordinance or law: The additional costs (other than demolition) to comply with building laws or codes.

Other Coverage: Spoilage, Hazardous Substances, Ammonia, Water damage, Professional Fees, Errors and Omissions, Newly Acquired Locations, Civil Authority or Denial of Access.

COVERAGE AUTOMATICALLY INCLUDES:

Microelectronics Coverage: Provides insurance when physical damage is not detectable or when firmware or software failure causes non-physical damage. Triggered when covered equipment suddenly stops functioning as it had been and that equipment or a part containing electronic circuitry must be replaced.

Cloud Computing – Service Interruption: Pays for business interruption and extra expense when your cloud computing service provider experiences an outage due to an equipment breakdown.

Cloud Computing – Data Restoration: Pays for data restoration for data lost when stored and managed by a cloud computing service provider that experiences an equipment breakdown.

Off Premises Transportable Objects: Extends coverage to transportable equipment anywhere in North America.

Anchor Location: (when business income coverage is purchased) expands Business Income coverage resulting from a covered accident at an anchor location that attracts customers to an insured location.

Environmental Efficiency and Green Coverage: Pays for upgrades to more energy efficient or environmentally friendly equipment.

Brands and Labels: Pays for the cost of removing labels or additional cost of stamping salvaged merchandise after a loss.

OTHER BENEFITS

Public Relations Coverage: (when business income coverage is purchased other than extra expense) pays for public relations assistance to help manage your reputation that may be damaged by business interruption or data loss.

Contingent Business Interruption: (when business income coverage is purchased other than extra expense) pays for Business Income resulting from a covered accident to property not owned, operated or controlled by the Insured.

OPTIONAL COVERAGE

The coverage is included only if specified limits of insurance are shown on the Schedule of Coverage. A quote may be available (a completed application may be required).

Data Compromise Coverage: Up to \$50,000 (Annual Aggregate) for an Insured affected by a data breach. When a data breach occurs involving personal identifying information (information not typically available to the public) coverage includes expenses you incur for:

- Legal Counsel: to determine how you should best respond to the breach.
- Forensic Services: to help assess the nature and extent of the compromise.
- Regulatory Notification: to provide notification to the Office of the Privacy Commissioner of Canada.
- Notification and Services to Affected Individuals: a packet of customer support information, access to a helpline, fraud alert for the affected individuals, identity restoration case management for victims of identity theft caused by the breach.
- Public Relations Services: to assist in restoring your reputation.

Identity Recovery Coverage: Up to \$15,000 (Annual Aggregate) for an Insured affected by identity theft. Coverage applies to an Insured that is a sole proprietor, a partner if the Insured is a partnership, a chief executive in a corporation or a senior ministerial employee for religious institutions. Coverage is provided for various additional and unexpected expenses an individual will sustain due to an identity theft such as: costs for credit reports, lost wages, costs for the supervision of children, elderly or infirm dependents.

ADDITIONAL INFORMATION

BI&I automatically provide inspection services for boilers and pressure vessels to satisfy the provincial inspection requirements on our behalf.

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Program Options Highlights of Coverage

Frank Cowan Company offers a Comprehensive Insurance Program to meet your needs.

In addition to "Your Insurance Coverage", enhancements to your coverage are available as outlined under the Program Options page.

Highlights of coverage follow providing a brief description of these options.

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CRIME COVERAGE OPTIONS

EXTORTION COVERAGE (THREATS TO PERSONS AND THREATS TO PROPERTY)

Coverage for both 'Threats to a Person' and 'Threats to Property' are sold together with a separate limit of insurance applying to each.

Threats to Person:

- Coverage responds when a threat is communicated to the Insured to do bodily harm to a director, officer or partner of the Insured (or a relative) when these persons are being held captive and the captivity has taken place within Canada or the U.S.A.

Threats to Property:

- Coverage responds when a threat is communicated to the Insured to do damage to the premises or to property of the Insured is located in Canada or the U.S.A.

PENSION OR EMPLOYEE BENEFIT PLAN COVERAGE

Coverage is for loss resulting directly from a dishonest or fraudulent act committed by a fiduciary (a person who holds a position of trust) in administering a pension or employee benefit plan. Coverage is provided whether the fiduciary is acting alone or in collusion with others. Fiduciary relationships may be created by statute however; individuals may also be deemed fiduciaries under common law.

RESIDENTIAL TRUST FUND COVERAGE (FOR SELECT CLASSES OF BUSINESS ONLY)

- Covers loss of property (money, securities or other property) belonging to a resident when it is held in trust by a residential facility. Coverage is for loss directly attributable to fraudulent act(s) committed by an employee of the facility whether the employee was acting alone or in collusion with others.
- A residential facility comprises a wide range of facilities and includes any residential facility operated for the purpose of supervisory, personal or nursing care for residents.
- Coverage stipulates that the 'resident' must be a person who is unable to care for themselves (this could be due to age, infirmity, mental or physical disability).
- When a resident is legally related to the operator of the residential facility, coverage is specifically excluded.

CREDIT CARD COVERAGE

Coverage is for loss from a third party altering or forging a written instruction in connection with a corporate credit card issued to an employee, officer or partner.

CLIENT COVERAGE (THIRD PARTY BOND)

Coverage is extended to provide for theft of a clients' property by an employee (or employees) of the Insured.

FRAUDULENTLY INDUCED TRANSFER COVERAGE

Coverage is provided when an Insured under the policy has been intentionally misled by someone claiming to be a vendor, client or another employee of the company and the Insured has transferred, paid or delivered money or securities to this third party.

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FRAUDULENTLY INDUCED TRANSFER COVERAGE HIGHLIGHTS (SOCIAL ENGINEERING)

OVERVIEW

Fraud today has become much more sophisticated and complex with Fraudulently Induced Transfer Crimes (otherwise known as Social Engineering) trending in today's marketplace. In response to this trend we now offer a Fraudulently Induced Transfer Endorsement as part of our suite of Crime Coverage.

These types of crimes are usually a targeted approach where criminals are after something definite from the target, either money (usually in the form of a wire transfer) or information (such as a list of vendors, routing numbers, etc.). Often times communications are sent to an employee (most often via email, telephone or a combination of the two), which are doctored to appear as if they are sent by a senior officer of the company or by one of its customers or vendors.

Essentially criminals prey on human and procedural vulnerabilities. The standard crime coverage does not respond to these types of losses as an employee of the organization has voluntarily parted with the money or securities and would be considered an active participant in the loss.

Example 1

Instructions to an employee supposedly coming from a vendor or customer are often accomplished by informing the employee that they have changed banks and require the company to use the new banking information for future payments.

Example 2

Instructions to an employee supposedly coming from an internal source (e.g. senior staff) to bypass in-house safeguards and redundancies, criminals apply pressure by imposing a time constraint, demanding secrecy or simply flattering the ego of the target by including him or her "in" on an important business transaction.

Fraudulently Induced Transfer coverage is an optional endorsement that may be purchased. Coverage is subject to a satisfactory supplementary application being completed.

FRAUDULENTLY INDUCED TRANSFER LOSSES, CYBER LOSSES AND CURRENT CRIME POLICIES

Even though this fraud often involves emails and wire transfers, cyber policies are not designed to cover them:

- Cyber policies cover losses that result from unauthorized data breaches or system failures. Fraudulently Induced Transfer actually depends on these systems working correctly in order to communicate with an organization's employees and transfer information or funds.
- Crime policies cover losses that result from theft, fraud or deception. As the underlying cause of a loss is 'fraud', a company would claim a loss under its crime policy rather than its cyber policy. Without this endorsement, coverage would be denied under a crime policy due to the Voluntary Parting Exclusion.

FRAUDULENTLY INDUCED TRANSFER ENDORSEMENT FEATURES

- Coverage is provided when an Insured under the policy has been intentionally misled by someone claiming to be a vendor, client or another employee of the company and the Insured (employee) has transferred, paid or delivered money or securities to this third party.
- Fraudulently Induced Transfer is defined as: The intentional misleading of an employee, through misrepresentation of a material fact which is relied upon by an employee, believing it to be genuine to voluntarily transfer funds or valuable information to an unintended third party.

LIMITS AND DEDUCTIBLE

The Fraudulently Induced Transfer Endorsement is subject to:

- Separate Limits of Insurance (both an Occurrence and Aggregate);
- A separate deductible;
- Limits ranging from \$10,000 - \$100,000.

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Remotely Piloted Aircraft Systems (UAV)

COVERAGE HIGHLIGHTS

OVERVIEW

Transport Canada is responsible for regulating UAV's. Their terminology for UAV's (Unmanned Aerial Vehicles) has changed and these are now considered to be Remotely Piloted Aircraft Systems (RPAS) rather than UAV's (Unmanned Aerial Vehicles). Regulations regarding operator licensing has also changed.

Liability or property policies can be enhanced with endorsements to cover Remotely Piloted Aircraft Systems (RPAS) or UAV's. Coverage may be available when operators are in compliance with current regulations.

Coverage offered is intended to close the gap in liability and property insurance because of aviation exclusions.

PROPERTY COVERAGE

Property: (Optional Coverage)

- All Risk Coverage for the Remotely Piloted Aircraft Systems (RPAS) including all permanently attached equipment and Ground or Operating Equipment (including any detachable equipment such as cameras etc).
- Coverage includes electrical and mechanical breakdown.
- Basis of settlement options include: Replacement Cost, Valued Amount or Actual Cash Value.

In addition to the standard exclusions within the Property All Risk Wording, the following exclusions also apply:

- Those used for military purposes, personal or recreational use.
- Those being rented to, leased to or lent to others.
- Mysterious disappearance after commencement of a flight unless Remotely Piloted Aircraft Systems - RPAS (UAV) remains unrecovered for 30 days.
- If they are not in compliance with the manufacturer's specifications (e.g. the weight payload) is exceeded, when operated in wind at a higher speed than recommended etc.).
- Remotely Piloted Aircraft Systems - RPAS (UAV's) must not exceed 500 meters in altitude or the range of 1km from the operator.
- Hijacking or unauthorized control of the Remotely Piloted Aircraft Systems -RPAS (UAV) or Equipment.
- Failure to comply with any statute, permit, rule, regulation or any requirement for qualification to operate the Remotely Piloted Aircraft Systems - RPAS (UAV) or the equipment.
- Criminal or dishonest acts, infidelity of employees, or theft from an unlocked vehicle.
- Coverage is limited to Canada only.

LIABILITY COVERAGE

- While Transport Canada mandates a minimum amount of insurance (\$100,000), coverage will follow the liability limit up to \$15,000,000. Higher limits may be available.
- We will extend liability to Remotely Piloted Aircraft Systems (RPAS).
- Having a range of up to a maximum of 1km from the operator.
- With an altitude of 500 metres or less.
- Operators meeting all Transport Canada regulations.
- Not being used for military purposes, personal or recreational use.
- Coverage is limited to Canada only.

IMPORTANT INFORMATION

While our endorsements are primarily designed to offer coverage for Remotely Piloted Aircraft Systems - RPAS (UAV's) 25kg or less, we may be able to offer coverage for those falling outside of these parameters through our general aviation market.

The information in this notice is intended for informational purposes only. For full details with respect to coverage, exclusions, conditions and limitations refer to the policy wordings. While coverage may be quoted, once a policy is issued coverage is only applicable if shown on Declaration Page or Schedule of Coverage.

ACTIVE ASSAILANT AND ASSOCIATED

Frank Cowan Company has partnered with XL Catlin, a market leader in writing Terrorism Risk, to offer a suite of Terrorism and Associated Coverages. **You have the option to select one or any combination of the following coverages:**

ACTIVE ASSAILANT EVENT INSURANCE	CHEMICAL, BIOLOGICAL, RADIOLOGICAL AND NUCLEAR (CBRN) INSURANCE
<p>An Active Assailant Event is a premeditated malicious physical attack, by an Active Assailant (who is physically present) armed with a hand-held weapon that causes direct physical loss and/or bodily injury or death. Coverage responds when three (3) or more persons that are physically present during the attack are affected.</p> <p>The solution is designed to help organizations with the financial impacts of Active Assailant Events. Coverage can be triggered by property damage or bodily injury. Additional special coverage for:</p> <ul style="list-style-type: none"> • Public Relations Expenses • Relocation Expenses (for the Insured or Employee of the Insured) • Counselling Expenses (for the Insured and Family Members) • Medical Expenses • Job Retraining Expenses (for Employees) • Employee Recruitment Expenses (for the Insured) • Security Expenses (expenses for a security consultant) <p>Maximum Limits: \$10,000,000 any one occurrence and in the aggregate</p>	<p>The use of Chemical, Biological, Radiological And Nuclear (CBRN) weapons is a growing concern worldwide. Deployment of these weapons would have a devastating impact, potentially causing damage and interruption to businesses located a significant distance away from the CBRN release. These exposures are excluded under the standard property policies.</p> <p>Our product is triggered by property damage or contamination resulting from the release of CBRN material with malicious intent This insurance covers Physical Loss or Damage (including Demolition, Decontamination and Prohibition of Access Orders, Blast Damage) and Business interruption</p> <p>Maximum Limits: \$25,000,000 any one occurrence and in the aggregate</p>
TERRORISM PROPERTY INSURANCE	TERRORISM LIABILITY INSURANCE
<p>Terrorism perils are dynamic in nature, the causes are sometimes unclear but the impact is significant. The risk is evolving, with a diverse range of groups; both foreign and home-grown, capable of launching terrorist attacks. The nature of such perils means they are board-level issues, and must be on any corporate risk register. Our policies cover physical damage to property, business interruption and extra expenses following property damage.</p> <p>This product offers protection from potentially devastating losses, both domestic and abroad that can result from either an act of Terrorism or an Act of Sabotage.</p> <p>Coverage is very broad and uniquely tailored. This policy provides Physical Loss or Damage and Business Interruption caused by Acts of Terrorism or Acts or Sabotage.</p> <p>Maximum Limits: \$50,000,000 any one occurrence and in the aggregate</p>	<p>Terrorism Liability Insurance provides coverage for financial costs against claims for damages by third parties who are injured in a terrorist attack. Coverage also extends to third party property damage. This is key because these exposures are usually excluded under liability policies.</p> <p>An Act of Terrorism is defined as an act committed for political, religious or ideological purposes including the intention to influence any government and/or to put the public in fear for such purposes.</p> <p>Maximum Limits: \$25,000,000 any one occurrence and in the aggregate</p>

The information in this notice is intended for informational purposes only. For full details with respect to coverage, exclusions, conditions and limitations refer to the policy wordings. While coverage may be quoted, once a policy is issued coverage is only applicable if shown on Declaration Page or Schedule of Coverage.

EXHIBIT “A”

Estimate of Values

The information contained herein is confidential, commercial, financial, scientific and/or technical information that is proprietary to Frank Cowan Company and cannot be disclosed to others. Any such disclosure could reasonably be expected to result in significant prejudice to the competitive position of Frank Cowan Company, significant interference with its competitive position and/or cause it undue loss.

TRI-COUNTY WATER BOARD

EXHIBIT "A"

BUILDINGS AND STRUCTURES

17/12/2020

ESTIMATE OF VALUES

GENERAL

11	RENTAL INCOME - RENTAL INCOME		500,000	LIM
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TRI-COUNTY

1	**	WATER TREATMENT PLANT, 9210 GRAHAM ROAD, WEST LORNE, N0L 2P0	14,934,200
2	**	CHLORINE BUILDING (BESIDE LOW LIFT STATION), GRAHAM ROAD, WEST LORNE, N0L 2P0	387,600
3	**	CONTROL SCADA BUILDING (OLD WATER TREATMENT PLANT), GRAHAM ROAD, WEST LORNE, N0L 2P0	300,000
4	**	LOW-LIFT STATION, GRAHAM ROAD, WEST LORNE, N0L 2P0	1,696,200
5	**	200 KW GENERATOR (AT LOW LIFT STATION), GRAHAM ROAD, WEST LORNE, N0L 2P0	205,300
6	**	WATER DISINFECTION STATION, 9168 COUNTY ROAD 14, IONA, N0L 1P0	21,000
7	**	BOOSTER PUMPSTATION, JANE AND FINNEY STREETS, WEST LORNE, N0L 2P0	157,300
8	**	STANDPIPE, JANE AND FINNEY STREETS, WEST LORNE, N0L 2P0	3,916,300

TOTALS:

	<u>BLANKET</u>	<u>SPECIFIED</u>
	21,617,900	500,000

PROPRIETARY DATA : USE OR DISCLOSURE OF THE INFORMATION IN THIS DOCUMENT IS SUBJECT TO THE RESTRICTIONS ON THE TITLE PAGE

REF:04180

07/10/2020

TRI-COUNTY WATER BOARD

EXHIBIT "A"

OTHER PROPERTY (Excluding Buildings)

17/12/2020

ESTIMATE OF VALUES

10	MEDIA	500,000
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TRI-COUNTY

9	2010 JOHN DEERE 340 LAWN TRACTOR, SERIAL NO.150089, SANDFORD STREET AND ELORA STREET, RODNEY, N0L 2C0	5,000
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TOTALS:

<u>BLANKET</u>	<u>SPECIFIED</u>
505,000	

PROPRIETARY DATA : USE OR DISCLOSURE OF THE INFORMATION IN THIS DOCUMENT IS SUBJECT
TO THE RESTRICTIONS ON THE TITLE PAGE

REF:04180

07/10/2020

COVID 19 – GENERAL SUPPLEMENTAL APPLICATION FORM
Public Entity
PLEASE NOTE:

- This supplemental form **MUST** be completed in addition to any other Applications required
- Additional underwriting criteria (in addition to this application) may apply depending upon the specific operation

NAME OF INSURED:
INCIDENTS AND POTENTIAL INCIDENT INFORMATION

Have you had any incidents relating to COVID-19 or any other contagious diseases, or similar outbreaks?	YES		NO	
If yes, please provide current status				

GENERAL QUESTIONS

Is your organization working at full capacity?	YES		NO	
If no, please provide full details including any and all operations/activities that have been suspended.				
Do you have an adequate supply of Personal Protective Equipment (PPE) for all emergency service workers?	YES		NO	
If no, how will any shortfall be resolved				
Do you have any of the following operations? Please tick all that applies				
<input type="checkbox"/>	Long Term care, Retirement homes or Group Homes			
<input type="checkbox"/>	Daycares			
<input type="checkbox"/>	Health Units/Department			
If you ticked any of the above, please complete section B and or C of this application.				

PLANS/POLICIES/PROCEDURES REQUIRED FOR REVIEW – ALL OPERATIONS

Does your organization comply with or have any of the following in place? Please tick all that applies				
<input type="checkbox"/>	Provincial or other Governmental recommendations/guidelines/directives regarding contagious diseases, pandemics or similar outbreaks for your operation			
<input type="checkbox"/>	Return to work plans			
<input type="checkbox"/>	Business continuity plans/policies and procedures			
<input type="checkbox"/>	Crisis management plans/policies and procedures including communication plans in place			
<input type="checkbox"/>	Others			

CONTRACTUAL OBLIGATIONS

If you are providing temporary services or additional operations to a third party related to an infectious disease or pandemic such as COVID -19 – please provide full details of these operations.

Provide all contracts that have been signed or contemplating signing with respect to these operations.

Are there hold harmless or waivers of liability clauses in these contracts?	YES		NO	
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SECTION B: LONG TERM CARE/RETIREMENT HOMES/GROUP HOMES (Please include a list of addresses and type of facility)

Indicate your current staff to client/patient/resident ratio	# of staff		# of client/patient/residents	
Describe your screening processes for entry and exiting for staff and visitors.				
Has the number of staff increased or decreased from prior to the most recent pandemic?	YES		NO	
Is this a temporary measure?	YES		NO	
Do you have a roster of substitute staff with adequate experience who can fill in if regular staff members are unable to come to work?	YES		NO	
Is it a policy or procedure that staff (including temporary or substitute staff) only work for your organization?	YES		NO	
General Protocols				
Describe your cleaning and sanitization procedures?				
Describe your protocols around size of meetings/gatherings?				
Describe your protocols around residents leaving the facility?				
Describe how you maintain social distancing among the residents in the facility?				
Screening Protocols				
Will employees be screened for COVID-19 before returning to work?	YES		NO	
Describe your screening process before an employee is allowed to return to work.				
Describe your screening protocols and procedures in place for admittance daily.				
Describe your screening protocols to prevent staff and visitors who are ill from entering the facility.				
Describe your Screening Area Protocols (e.g. distancing, visual guides to assist flow of people, signage outlining your process for visitors and/or residents upon arrival etc.)				
Protocols in Event of an Outbreak				
Are there plans in place for short term closures as needed for cleaning and disinfecting or if the facility has been exposed?	YES		NO	
Have you established a separate test area within the facility to evaluate or test patients showing any symptoms?	YES		NO	
Describe your isolation procedures for all confirmed cases until full recovery or when a person is no longer considered infectious.				
Do you have a plan in place to effectively trace people who may have been in contact with anyone in the facility with the disease?	YES		NO	
PERSONAL PROTECTIVE EQUIPMENT (PPE) INFORMATION				
Indicate what PPE is provided to your staff?				
Do you have alternative suppliers for PPE and medical supplies in the event of a shortage and/or loss at their current supplier?	YES		NO	
How do you confirm PPE and medical supplies conform to industry standards (e.g. What testing measures are in place for the supplies before departure of origin country and upon delivery in Canada)				
Indicate the limit of stock associated to PPE on hand at all times.	\$			
Indicated how it is stored and protected from unauthorized use (e.g. locked with only specific persons having access, all staff having access etc.)				

SECTION C: DAYCARES (Please include a list of addresses)

Indicate your current staff to children ratio	# of staff	# of children		
Has the number of staff increased or decreased from prior to the most recent pandemic?	YES		NO	
Is this a temporary measure?	YES		NO	
Do you have a roster of substitute staff with adequate experience who can fill in if regular staff members are unable to come to work?	YES		NO	
Is it a policy or procedure that staff (including temporary or substitute staff) only work for your organization?	YES		NO	
Indicate the number of staff that works for your organization as well as any other organization (including those on contract)				
Has the number of number of children/students you now accept decreased after this recent pandemic?	YES		NO	
Indicate the number of children in your facility(ies)	currently		previously	
If you have not reduced the number of children in your facility, please describe other protocols you are taking to ensure appropriate distancing (e.g. additional space rental/purchase etc.)				

PROTOCOLS
General Protocols

Describe your cleaning and sanitization procedures to prevent the spread of germs via toys, recreational items etc.?				
Is there a designated area for the outdoor shoes and sanitizing area prior to entering the 'clean' zone?	YES		NO	

Screening and Monitoring Protocols

Describe your screening protocols and procedures in place for admittance daily.				
Describe your screening protocols to prevent staff, visitors or children who are ill from entering the facility.				
Describe your procedures for pick up/drop off and limiting number of people in the facility at one time.				
Describe your Screening Area Protocols (e.g. distancing, visual guides to assist flow of people, signage outlining your process for visitors and/or residents upon arrival etc.)				
Describe any additional protocols you have put in place to monitor children/students for symptoms throughout the day (e.g. temperature monitoring)				
Is there an isolation room or area where the sick child can stay until their guardian can pick them up?	YES		NO	

TRI COUNTY WATER BOARD
MULTI YEAR BUDGET

		2021	2022	2023	2024	2025	2026
REVENUE		<u>FORECAST</u>	<u>FORECAST</u>	<u>FORECAST</u>	<u>FORECAST</u>	<u>FORECAST</u>	<u>FORECAST</u>
Water Revenue		-1,342,617.49	-1,396,742.40	-1,450,866.88	-1,504,991.35	-1,612,345.77	-1,667,364.78
Interest	02-7315-6110	-17,000.00	-17,500.00	-17,000.00	-18,500.00	-20,000.00	-25,500.00
TOTAL REVENUE		\$ (1,359,617.49)	\$ (1,414,242.40)	\$ (1,467,866.88)	\$ (1,523,491.35)	\$ (1,632,345.77)	\$ (1,692,864.78)
EXPENDITURES							
Insurance	02-7315-7510	19,747.80	20,142.76	20,545.61	20,956.52	21,375.65	21,803.17
Audit Fees	02-7315-7676	3,765.12	3,765.12	3,765.12	3,765.12	3,765.12	3,840.42
Legal	02-7315-7675	5,000.00					
Administration Expense	02-7315-7529	7,000.00	7,000.00	7,000.00	7,000.00	7,000.00	7,000.00
Hydro	02-7315-7500	279,631.29	285,223.92	290,928.39	296,746.96	302,681.90	308,735.54
Gas	02-7315-7501	23,000.00	23,460.00	23,460.00	23,460.00	23,460.00	23,460.00
Telephone & Internet	02-7315-7601	8,600.00	8,650.00	8,700.00	8,750.00	8,800.00	8,850.00
Grounds Maintenance - Phragmites Control	02-7315-7520	18,000.00					
Financial Plan		0.00	0.00	0.00	20,000.00	0.00	0.00
Contracted Services - OCWA	02-7315-7680	440,667.00	447,277.00	453,987.00	455,000.00	464,100.00	473,382.00
Asset Management	02-7315-7681	40,876.00	9,306.00	0.00	0.00	0.00	0.00
Taxes	02-7315-7511	67,357.14	68,831.88	69,520.20	70,215.40	71,619.71	71,619.71
TOTAL OPERATIONS		\$ 913,644.35	\$ 873,656.67	\$ 877,906.32	\$ 905,894.01	\$ 902,802.38	\$ 918,690.84
CAPITAL							
CAPITAL ASSETS	02-7315-8000	597,450.00	397,425.00	619,500.00	484,575.00	617,925.00	405,825.00
TOTAL CAPITAL PROJECTS		\$ 597,450.00	\$ 397,425.00	\$ 619,500.00	\$ 484,575.00	\$ 617,925.00	\$ 405,825.00
NET OPERATIONS		\$ 151,476.86	\$ (143,160.73)	\$ 29,539.45	\$ (133,022.35)	\$ (111,618.38)	\$ (368,348.94)
TRANSFER TO RESERVES	02-7315-7900		\$ 143,160.73		\$ 133,022.35	\$ 111,618.38	\$ 368,348.94
TRANSFER FROM RESERVES	02-7315-7901	\$ (151,476.86)		\$ (29,539.45)			
NET TRI COUNTY WATER		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

COMMENTS:**Revenues:**

D/D, SWM & WE Revenue	<i>is based on 2020 consumption (m3). No increase in consumption is projected.</i>
West Elgin Line Losses	<i>proposing \$0.04 increase every year 2020-2026 as per Sharratt Water Management Financial Plan</i>
Interest	<i>calculated 15% of total West Elgin water line loss.</i>
	<i>based on average interest earned in prior years</i>

Expenses

<i>Insurance</i>	<i>2021 is based on actual increase of 26.3%</i>
	<i>2022-2026 is based on 2% increase</i>
<i>Audit Fees</i>	<i>as per agreement with Scrimgeour & Co. 2021-2025</i>
<i>Admin Expense</i>	<i>charges from Municipality of West Elgin</i>
<i>Hydro</i>	<i>2021 budget is based on 2019 actuals</i>
	<i>projecting 2% increase 2021-2026</i>
<i>Gas</i>	<i>2021 budget is based on 2020 actuals</i>
	<i>projecting 2% increase 2021-2026</i>
<i>Contracted Services</i>	<i>based on 2020-2025 OCWA agreement</i>
<i>Capital</i>	<i>based on Capital forecast from OCWA</i>

Reserves

Beginning Balance - January 1, 2020	\$ 1,041,795.11
Transfer to Reserves	132,749.29
Ending Balance - December 31, 2020	\$ 1,174,544.40
Transfer from Reserves	- 151,476.86
Ending Balance - December 31, 2021	\$ 1,023,067.54
Transfer to Reserves	143,160.73
Ending Balance - December 31, 2022	\$ 1,166,228.27
Transfer from Reserves	- 29,539.45
Ending Balance - December 31, 2023	\$ 1,136,688.83
Transfer to Reserves	133,022.35
Ending Balance - December 31, 2024	\$ 1,269,711.17
Transfer to Reserves	111,618.38
Ending Balance - December 31, 2025	\$ 1,381,329.56
Transfer to Reserves	368,348.94
Ending Balance - December 31, 2026	\$ 1,749,678.50

QUOTE

Wednesday, November 11, 2020

Janice M. Gilbert, Ph.D.
Executive Director
Invasive Phragmites Control Centre
P.O. Box 245
Langton, ON
N0E 1G0
(519) 410-1410

To: Mike Taylor
Senior Operations Manager
Ontario Clean Water Agency
Southwest Region
9210 Graham Road
West Elgin County
(226) 545-0414

RE:		
Phragmites control at the Tri-County Water Treatment Facility		
DESCRIPTION	ITEM	UNIT PRICE
Truxor (amphibious machine) used to cut and pile Phragmites; recommended timing July	1 day; includes mobilization	\$3,430
Manual Control: Backpack herbicide application (includes chemicals, track vehicle); recommended timing July	1 day; includes mobilization	\$2,940
Herbicide application along edge of ponds using the Truxor and touch up of areas treated in July (includes chemicals); recommended timing early/mid-September	1 day; includes mobilization	\$5,810
Cutting and piling herbicide treated Phragmites using Truxor and Stihl cutters; recommended timing late September/October	1 day; includes mobilization	\$5,816
Subtotal (HST not included)		\$17,996
Please note prices quoted may be subject to change in 2021		

Tri-County Water Treatment Plant

(6-Year Recommended Capital/Major Maintenance from 2021 to 2026)
The Ontario Clean Water Agency has identified the following capital projects/major maintenance for your review and approval.

Ref.		Cost Estimate						Compliance	DWQMS RA Outcome*	Health & Safety	Repair / Maintenance	Lifecycle Replacement	Improvement	Spare Parts Inventory	Approved by Client	Rationale for Project
		2021	2022	2023	2024	2025	2026									
	Treatment Plant															
1	Main Hydro Transformer: undersized and requires upgrading	\$ 50,000.00	\$ -	\$ -	\$ -	\$ -	\$ -									The main transformer has been identified as undersized and requires upgrading to a larger transformer. Waiting on hydro one study and plant power study before determining a final plan.
2	Intake structure Inspection	\$ 10,000.00	\$ -	\$ -	\$ -	\$ -	\$ -									Last inspected in 2016. Recommended for inspection every five years.
3	Strainers: Purchase of critical spare parts	\$ 12,500.00	\$ -	\$ -	\$ -	\$ -	\$ -									Currently there are no critical spare parts in stock inventory. Recommend to develop spare parts inventory.
4	pH Control System (Pilot project)	\$ 11,000.00	\$ 11,000.00	\$ 11,000.00	\$ 11,000.00	\$ 11,000.00	\$ 11,000.00									Pilot study commenced in Spring 2018. Annual cost for operation of pH control system.
5	Eramosa: SCADA Condition Study	\$ 17,500.00	\$ -	\$ -	\$ -	\$ -	\$ -									Condition study which will be used to develop the long term capital needs of maintaining all of the PLC's hardware/software at all Tri-County sites.
6	Smart positioners: Spare parts inventory	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00									Critical component for filter operation. Continue to ensure there are spare parts at all times for continuity of operations.
7	Pneumatic actuators	\$ -	\$ -	\$ 3,000.00	\$ -	\$ -	\$ 3,000.00									96 actuators throughout the plant. Three different sizes.
8	Rack butterfly valves	\$ -	\$ 2,000.00	\$ -	\$ -	\$ -	\$ 2,000.00									Continue to increase spare parts inventory, multiple sizes required.
9	Lowlift: PLC UPS replacement	\$ 5,000.00	\$ -	\$ -	\$ -	\$ -	\$ -									Requires replacement for hard wired PLC UPS in PLC cabinet.
10	Inplant process motors/pumps	\$ 5,000.00	\$ -	\$ -	\$ -	\$ 5,000.00	\$ -									Placeholder for process pumps.
11	Chemical Transfer pump replacement	\$ 4,000.00	\$ -	\$ 4,000.00	\$ -	\$ -	\$ -									4 chemical transfer pumps which are replaced every 4-5 years.
12	Chlorine and Peroxide feed pumps	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ -	\$ -	\$ -									Currently one spare chlorine pump in stock inventory and no peroxide spare pumps. Original chlorine pumps are still in service.
13	Chlorine Analyzer pH probes and cl2 probes	\$ 6,500.00	\$ 6,500.00	\$ 6,500.00	\$ 6,500.00	\$ 6,500.00	\$ 6,500.00									pH probes should be replaced every 6-12 months and chlorine probes every 2-3 years. 7 online analyzers in plant.
14	Chlorine Gas Building: chemical feed system service and overhaul of lifecycle components	\$ 10,000.00	\$ 7,500.00	\$ 7,500.00	\$ 7,500.00	\$ 7,500.00	\$ 7,500.00									Recommend in 2021 to conduct a general rebuild on the chlorine gas system and to replace the aging gas cylinder scales. Includes, valves, piping etc.
15	UV system Reactors: Reactor 1 and 2 lamps	\$ 15,000.00	\$ 15,000.00	\$ 2,500.00	\$ 2,500.00	\$ 2,500.00	\$ 2,500.00									Requires full replcaement of lamps in each reactor starting with one in 2021 and the second in 2022.
16	Storage Tank Inspections	\$ -	\$ -	\$ -	\$ 10,000.00	\$ -	\$ -									Recommended every five years, last inspected 2014. There are funds in 2019 to be completed by Dec. 31, 2019.
17	Storage north tank: insect screen and insulated manway box	\$ 7,500.00	\$ -	\$ -	\$ -	\$ 20,000.00	\$ -									Insulated cover has deteriorated and broken down and no longer protects the manway access. Also requires insect screen on vent. Both requires replacement in 2021. For 2025, interior sealing required as per 2019 report.
18	Storage south tank: insect screen and insulated manway box	\$ 7,500.00	\$ -	\$ -	\$ -	\$ 20,000.00	\$ -									Insulated cover has deteriorated and broken down and no longer protects the manway access. Also requires insect screen on vent. Both requires replacement in 2021. For 2025, interior sealing required as per 2019 report.
19	Air Manifold card replacement and air lines - 4 year cycle	\$ 7,500.00	\$ 7,500.00	\$ 7,500.00	\$ -	\$ -	\$ -									Air cards and air lines should be replaced on filters 1 through 4, over a 4 year cycle starting in 2020. filter rack was done in 2020. recommend filter 2 in 2021.
20	Chemical Room: Pipe and hanger replacement	\$ 20,000.00	\$ -	\$ -	\$ -	\$ -	\$ -									Rusting heavily from chemicals .
21	Naturalized Ponds: Removal of Phragmites	\$ 30,000.00	\$ 30,000.00	\$ -	\$ -	\$ -	\$ -									Phragmites is an invasive species and is encroaching around and into the naturalized ponds and requires attention.
22	Chubb Security Panel: replacement required	\$ 15,000.00	\$ -	\$ -	\$ -	\$ -	\$ -									The sediment tanks at the treatment plant and lowlift require to be cleaned and sediment removed every 4-5 years.
23	Pall Filters: optimization study	\$ 15,000.00	\$ -	\$ -	\$ -	\$ -	\$ -									Recommend to undertake optimization study by Pall to determine options to reduce organics prior to filtration system or possible options to upgrade filters that can handle organics to reduce THM's.
24	Pall Filters: annual service/PLC upgrades/software	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00									Recommend for Board consideration to implement annual servicing agreement with Pall to undertake inspection/review programming and check overall health of filter performance starting in 2021.
25	Pall: Computer hardware/software and License upgrades	\$30,000.00	\$ -	\$ -	\$ -	\$ -	\$ -									Recommend to upgrade and replace the aging computer hardware and software and licence for the Pall computer system.
26	PALL membranes	\$ -	\$ -	\$ 300,000.00	\$ 300,000.00	\$ 300,000.00	\$ 300,000.00									352 modules within plant, installed in 2008. Purchase spare modules for inventory in 2020 and possible replacement starting in 2023 for all filter modules.
Total Estimate - Recommended Capital		\$299,000	\$99,500	\$362,000	\$351,500	\$386,500	\$346,500									

Tri-County Water Treatment Plant

(6-Year Recommended Capital/Major Maintenance from 2021 to 2026)

The Ontario Clean Water Agency has identified the following capital projects/major maintenance for your review and approval.

Ref.	No.	Scope of Work	Cost Estimate						Compliance	DWQMS RA Outcome*	Health & Safety	Repair / Maintenance	Lifecycle Replacement	Improvement	Spare Parts Inventory	Approved by Client	Rationale for Project
			2021	2022	2023	2024	2025	2026									
		Highlift and Lowlift Pumps & Motors															
1		Lowlift motor: rebuilds/replacement	\$ 10,000.00	\$ 10,000.00	\$ -	\$ -	\$ -	\$ -									New Premium efficiency motors. Rebuild/replace motors 2,3,4 starting in 2020. Motor 1 was replaced in 2018 due to failure. Pump 3 motor was refurbished in 2020. Recommend to continue with rebuild of motor on pump 2 or 4 in 2021.
2		Lowlift pump: inspection/refurbishment	\$ 15,000.00	\$ 15,000.00	\$ -	\$ -	\$ -	\$ -									Removal/inspection/refurbishment on pumps 2,3,4 starting in 2020. Pump 1 was refurbished in 2018 when the motor was replaced. Pump 3 was rebuilt in 2020 as part of upgrade for new VFD. Recommend to pull/inspect/rebuild pump 2 or 4 in 2021.
3		Lowlift motors: replacement of soft starters With Variable Frequency Drive's	\$ 18,000.00	\$ 18,000.00	\$ 18,000.00	\$ -	\$ -	\$ -									Lowlift soft starter drives are nearing the end of their lifecycle. This asset has a typical life expectancy of 7-10 years. Pump 3 soft start was replaced and upgraded to a VFD. Recommend to replace pump 1 with a VFD as well in 2021.
4		Highlift pump: replacement of soft starters and VFD's	\$ 35,000.00	\$ 20,000.00	\$ 20,000.00	\$ -	\$ -	\$ -									Recommend to replace existing soft starter to VFD on pump 3 in 2021 and replace soft starters with like for like on pump 1 in 2022 and pump 3 in 2023.
5		Highlift pump and motor: Rebuild	\$ 15,000.00	\$ 15,000.00	\$ -	\$ -	\$ -	\$ -									Pump 1 scheduled for 2021 and pump 2 for 2022. Pump 4 and motor was rebuilt last in 2019 and a VFD installed. Due to failure on pump 3, it requires to be rebuilt in the fall of 2020.
		Total Estimate - Recommended Capital	\$93,000	\$78,000	\$38,000	\$0	\$0	\$0									
		Structural includes: (piping/control or PRV valves/building envelope/HVAC/ plant chambers)															
1		Raw wetwell maintenance/repairs/upgrades	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00									Annual allotment for clean out of screen and pump wells.
2		Treatment Plant and Lowlift Settling Tanks: Sediment removal	\$ -	\$ -	\$ 15,000.00	\$ -	\$ -	\$ 15,000.00									The sediment tanks at the treatment plant and lowlift require to be cleaned approximately every 3 years. Last cleaned in summer of 2020.
3		Lowlift: Long line valve replacement	\$ -	\$ 40,000.00	\$ -	\$ -	\$ -	\$ -									The valve located in the long line pipe intake is leaking into the valve chamber and requires repairs. This should be addressed in 2021.
4		Highlift Discharge Header: Replacement of Ross PRV	\$ 10,000.00	\$ -	\$ -	\$ -	\$ -	\$ -									Recommend to replace the existing dsicharge header ross PRV in 2021.
5		Treatment Plant Heating/AC/dehumidification system	\$ 7,500.00	\$ 75,000.00	\$ -	\$ -	\$ -	\$ -									In 2022, the main plant heating and cooling system will be app. 13 years old and nearing its end of lifecycle. For 2021, the Hydronic boilers – upgrade to proper exhaust pipe as it is getting brittle due to the temps. Also the boiler control system should be looked at as both boilers are left on high fire 24hrs per day 7 days per week.
6		Old Treatment Plant: (IRC BCA Recommendation)	\$ 8,000.00	\$ 14,000.00	\$ 22,500.00	\$ -	\$ 5,000.00	\$ -									Recommend in 2021 to undertake a mould assessment study on office space and a feasibility study to abandon certain components of the old water treatment plant. If building to be maintained, recommend for replacement of windows in 2022 and flooring on second floor in 2023. Placeholder for exterior door replacement in 2025.
7		Lowlift Pump House: (IRC BCA Recommendation)	\$ -	\$ 16,000.00	\$ 42,500.00	\$ -	\$ 5,000.00	\$ 5,000.00									Requires replacement of leaking skylight in 2022, and conduct ventilation study to determine if current system can actually ventilate properly. Recommend for replacement of the roof in 2023 and all exterior doors in 2025 and placeholder in 2026 for skylights.
8		Chlorine gas building: (IRC BCA Recommendation)	\$ 15,000.00	\$ 1,000.00	\$ -	\$ -	\$ 20,000.00	\$ -									Recommend to replace old piping and rehabilitate foundation wall in basement in 2021, and placeholder for heater maintenance/replacement in 2022. For 2025, recommend to install waterproof roof membrane over existing roof and to replace the door.
9		Lowlift Access: milling and overlay of existing asphalt (IRC BCA Recommendation)	\$ -	\$ -	\$ 75,000.00	\$ 75,000.00	\$ 75,000.00	\$ -									IRC recommends for the milling of existing driveway to lowlift. Phased in approach over 3 year period starting in 2023.
10		Retaining Wall: Repairs to retaining wall just south of lowlift (IRC BCA Recommendation)					\$ 75,000.00										IRC recommends to undertake repairs to slumping unsupported retaining wall near the lowlift to ensure property is protected from water damage from Lake Erie.
11		Lowlift Facilities: undertake review of 2020 IRC condition assessment and update	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,000.00									Recommend to conduct a review and updating of 2020 condition assessment completed by IRC.
12		Treatment Plant: Condition assesment	\$ 10,000.00	\$ -	\$ -	\$ -	\$ -	\$ -									Conduct inspection of water treatment plant similar to one completed on lowlift in 2020.
13		Lowlift: chemical receiving platform and ram modifications	\$ 25,000.00	\$ -	\$ -	\$ -	\$ -	\$ -									Recommend to undertake a review and upgrade the chemical receiving platform and possible ramp for chlorine gas.
14		Discharge Header: Repairing/ replacing stainless pipe	\$ 40,000.00	\$ -	\$ -	\$ -	\$ -	\$ -									Highlift discharge pipe has issues with stainless steel piping. Recommend to replace entire discharge header over two year period.

Tri-County Water Treatment Plant

(6-Year Recommended Capital/Major Maintenance from 2021 to 2026)

The Ontario Clean Water Agency has identified the following capital projects/major maintenance for your review and approval.

Ref.		Cost Estimate						Compliance	DWQMS RA Outcome*	Health & Safety	Repair / Maintenance	Lifecycle Replacement	Improvement	Spare Parts Inventory	Approved by Client	Rationale for Project
		2021	2022	2023	2024	2025	2026									
No.	Scope of Work															
	Total Estimate - Recommended Capital	\$125,500	\$156,000	\$165,000	\$85,000	\$190,000	\$40,000									
	Standpipe and Transmission Main (remote chambers)															
1	Altitude valve replace/ rebuild	\$ 6,500.00	\$ -	\$ -	\$ -	\$ -	\$ -									Recommend to rebuild in 2021.
2	Eagle East: replacement of 12-inch valves	\$ 10,000.00	\$ -	\$ -	\$ -	\$ -	\$ -									The existing valves located in the Eagle east metering chamber do not hold and are recommended to be replaced in 2021.
3	Remote Chamber Refurbishment: (Eagle West/Silverclay/Marsh/Pioneer)	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ -	\$ -									Recommend for upgrading and refurbishing components at the remote site chambers. Work includes upgrading hardware/software in the PLC and programming, cabinet work lighting and heating, inspecting all electrical components. Silverclay work completed in 2020 and recommend Marsh Line in 2021.
4	Marsh Line Chamber: Installation of Sample Station	\$ -	\$ 10,000.00	\$ -	\$ -	\$ -	\$ -									This chamber doesn't have a sample station. The installation of a sample station provides the Operating Authority with an additional location to obtain bacti samples
5	West Lorne Standpipe: Inspection	\$ -	\$ -	\$ -	\$ -	\$ 12,000.00	\$ -									Internal inspection scheduled for November 2020. OCWA recommends that in 2025 to undertake an internal and external inspection.
6	West Lorne Standpipe: Inspection of cathodic protection system	\$ 10,000.00	\$ -	\$ -	\$ -	\$ -	\$ -									
7	Eagle West: Installation of Sample Station	\$ -	\$ 10,000.00	\$ -	\$ -	\$ -	\$ -									The chamber doesn't have a sample station. The installation of a sample station provides the Operating Authority with an additional location to obtain bacti samples
	Total Estimate - Recommended Capital	\$51,500	\$45,000	\$25,000	\$25,000	\$12,000	\$0									
	Contingency 5%	\$28,450	\$18,925	\$29,500	\$23,075	\$29,425	\$19,325									
	Total Capital Estimate without contingency	\$569,000	\$378,500	\$590,000	\$461,500	\$588,500	\$386,500									
	Total Capital Estimate with 5% contingency	\$597,450	\$397,425	\$619,500	\$484,575	\$617,925	\$405,825									

2021 Recommended Capital Presented by:

2021 Recommended Capital Approved by:

Mike Taylor

Dale LeBritton

* NOTE : a requirement of DWQMS v. 2.0 is to consider the outcomes of the risk assessment (RA) documented under Element 8 as part of the system's infrastructure review

Legend:

H

High priority recommended to be completed in upcoming year

M

Medium priority recommended to be completed in 1 to 3 years

L

Low priority recommended to be completed in years 4 to 5

Pall Proposal No.: OPP1519359

Date: December 3, 2020

West Elgin Tri-County WTP
9210 Graham Road
West Lorne ON, Canada
Attn: Mike Taylor, Vitaliy Talashok
Email: mtaylor@ocwa.com, vtalashok@ocva.com

Re: On-Demand Service Support for Pall Filtration System at the West Elgin Tri-County WTP Water Filtration System

As a follow up to your discussion with Pall, we are pleased to offer a proposal for technical services. We will arrange onsite support pending receipt of your purchase order, at which time site visit details will be confirmed.

Scope of Services

Technical Scope of Supply - New Desktop SCADA PC with FactoryTalk SE

Pall Water proposes to upgrade the existing SCADA PC by replacing it with a new, 64-bit Dell Optiplex desktop PC fully configured to operate as the plant SCADA system, operating on Microsoft Windows 10. The SCADA programming will be need to be converted from RSView to FactoryTalk View SE as part of this upgrade (under a separate line item in this proposal). A new 22" wide-screen monitor is included.

***Please note that the current SCADA software used at the customer's site, Rockwell Software RSView, will only operate on the 32-bit version of Microsoft Windows 7. Microsoft ended support of Windows 7 in January 2020. Since the RSView software will not function on 64-bit operating systems or Windows 10, Pall Water is urging customers to upgrade their RSView software to Rockwell Software FactoryTalk SE. This allows an easier upgrade path while maintaining security in their SCADA systems. An upgrade to FactoryTalk SE operating on 64-bit Windows 10 is included in this proposal. ***

As part of this proposal, Pall Water will provide the following services:

- Provision and installation of a new license of FactoryTalk SE SCADA software and associated utilities, add-ons and extensions. FactoryTalk Studio editing software is included. This computer will be provided with View capabilities as well, allowing full operation and monitoring of the SCADA system. FactoryTalk is an updated SCADA software that operates on modern 64-bit computers and operating systems.
- Installation of RSLinx and required reference files
- Installation and activation of MSOffice (new license supplied with new PC)
- Provision and installation of a new license of North Point Technologies ActiveX software
- Provision and installation of a new license of XL Reporter data collection/reporting software
- Installation of Rockwell Software RSNetworkx for ControlNet, RSNetworkx for DeviceNet and RSNetworkx for Ethernet/IP
- Installation of Rockwell Software RSLogix5000, RSLogix Emulate and RSLogix Architect
- Simulation & testing of the PC's operation before shipment to site

Pall will send the PC to the customer as a "plug-and-play" installation. No site visit by a Pall Field Service Engineer is provided. The customer will install the computer upon its return to the customer's site. The customer will then be required to contact Pall to log into the computer using to gain remote access to make any final modifications. Pall will provide remote telephone support to guide the customer through the installation process as needed.

All software licenses for the software listed above, with the exception of North Point Technologies Activ_X Prompt software, XL Reporter, Rockwell Software RSLinx, FactoryTalk SE, and FactoryTalk Studio will be moved from the old computer to the new one, unless otherwise noted. New licenses of Activ_X Prompt software, XL Reporter, Rockwell Software RSLinx, FactoryTalk SE, and FactoryTalk Studio will be provided by Pall. As necessary, Pall will work with the customer to obtain the most current copies of SCADA screens and other site-specific programming for installation on the new PC. Customer must verify current software license numbers of the following Rockwell Software programs:

- RSView32
- RSLinx
- RSNetworx for ControlNet
- RSNetworx for DeviceNet
- RSNetworx for Ethernet/IP
- RSLogix 5000
- RSLogix 5000 Emulate
- RSLogix Architect

Installation of any software not originally provided by Pall, as listed above, is not included and must be completed by others.

Schedule - Usually, customers receive upgraded PC's within 5 weeks after PO acknowledgement. Pall anticipates the project progressing as follows:

Week 1 after receipt of customer PO: Purchase computer, SCADA, MSOffice and anti-virus software.

Week 2: Receive software.

Obtain copies of current programming from existing computer

Week 3: Begin conversion of RSView screens to FactoryTalk

Week 4: Complete conversion of RSView SCADA files to FactoryTalk

Install FactoryTalk SE and FactoryTalk Studio

Install RSLinx

Install XL Reporter

Install RSLogix 5000, RSLogix 5000 Emulate and RSLogix Architect

Install RSNetworx for ControlNet, RSNetworx for DeviceNet and RSNetworx for Ethernet/IP

Install ActiveX prompt software

Install data reporting ("Daily Report")

Complete Factory Acceptance Testing of new computer and simulation testing of new

FactoryTalk SCADA

Package and ship computer to site

Week 5: Customer receives computer and installs, contacting Pall Water for assistance as needed.

This schedule is provided for informational purposes only. Pall Water understands the urgency of this request and will work to complete this work as quickly as possible. Schedule may change during execution for unforeseen reasons.

Freight charges are not included.

Disclaimer: This proposal is based on information and conditions known at the time of quotation. Pall Water reserves the right to revise this proposal through change order(s) should conditions vary significantly from those known at the time of quotation and require additional work or materials.

On Demand Service

On demand, onsite service is provided only when requested by the customer. The service is scheduled based on Pall's ability to accommodate the customer's requested date. Lead time from notification of need by the Customer, to dispatch is to be negotiated prior to contract order.

Our proposal, based on time and materials, is calculated using Pall's Service Rate. Should additional time beyond the quoted value be required to successfully complete the scope; we will request a revision to your Purchase Order, while onsite, or recommend arrangements be made for a future site visit.

PROPOSAL SUMMARY

On-Site Technical Support: MM# WH017463 - On Demand

USD \$21,950.00 / CAD \$28,535.00

Travel Expense Reimbursement - Expenses: MM# 25662

Included in above

Total amount for purchase order:**USD \$21,950.00 / CAD \$28,535.00**

Service Reports: If service reports are required by your site to comply with your company or state regulations, please indicate on your order that service report documents are required. Service reports detailing the visit and recommendations will then be provided.

Materials: This proposal covers service time only. All materials purchased by Pall for use on your system will be quoted, and a separate purchase order is to be placed for those items as needed.

Validity: This proposal is valid for 30 days.

Terms of Sale: Pall Standard Terms and Conditions of Sale of Services.

Terms of Service:

- Regular minimum service charge is for a 10-hour day. Maximum workday is 12 hours including travel time.

Service Order acceptance and payment terms: Pall Water requires all accounts outstanding beyond 30 days to be paid in full prior to order acceptance. Your account status will be verified at the time of order placement, and you will be notified if you have a balance due. To avoid order processing, goods shipment or service scheduling delays, please insure your account is up to date in advance of placing your order. Charges per the proposal will be billed automatically upon completion of the service, and sign-off of the service report, and become payable within 30 business days of receipt of the invoice.

Changes: Pall shall not implement any changes in the scope of services described in Pall's proposal unless the Customer and Pall agree to the details of the change. Any resulting price, schedule or other contractual modifications, will require a verbal change called into Pall's Customer Service Department, with a follow up written confirmation. This includes any changes necessitated by a change in applicable law.

A Purchase Order or written authorization to accept the contract of work as described, along with a signed copy of the attached Customer authorization for service is required in advance of PASS providing the service defined in this proposal.

Please direct your purchase order to:

Pall Water
Pall System Services
P.O. Box 5630
839 State Route 13
Cortland, New York 13045-5630
Tel: 866-475-0115 / Fax: 607.758.4526
Email: Pall_Technology_csc@pall.com
Attn: Customer Service

Pall Systems Support

To obtain support for your Pall systems installation, our Customers can contact Pall via our toll free number at 866-475-0115 or by email to pall_technology_csc@pall.com. Through this channel, you gain access to warranty assistance, technical support as well as our service and spares team.

Pall Customers have access to this 24/7 Service Hotline. Pall System Engineers are on full-time rotation to provide around-the-clock availability of live technical support. This service is charged at \$250 for support time for the first 30 minutes, during normal workday hours between 9:00-AM and 4:00-PM EST, excluding weekends and holidays.

If your system is out of warranty or does not have a 24/7 service support contract, there will be a charge when technical support is to be provided for intervals longer than 30 minutes, or after-hours technical support to resolve the issue. Extensive off-site support will require a purchase order or credit card. Billing is based on a minimum 1-hour charge at Pall's off-site hourly service rate. You will be asked to provide your credit card number or service contract purchase order number that will be billed at Pall's Off-Site Service Rates, with a minimum 1-hour charge. If the problem cannot be resolved over the telephone, the Customer can request a Pall System Service Representative to visit the site location. You will be quoted an Emergency Service Rate and billed for last-minute travel expenses.

Please feel free to call me at your convenience with any questions or comments. We look forward to providing you with field services to assist you with system operation, and await your purchase order.

Sincerely,
Rafael Fernandez
Regional Sales Manager
Mobile phone 305-240-0415
E-mail: Rafael_Fernandez@pall.com

Pall Proposal No.: OPP1519359
Date: December 3, 2020

Customer Authorization for Service

I am an authorized representative of the customer, and I accept the Terms and Conditions of this Service Agreement on behalf of the customer. I authorize Pall Corporation to perform the work defined in this agreement, and accept the costs and charges defined in this agreement.

Company: _____

Print Name

Title/Position

Signature

Date

Purchase Order No. or Reference for Billing: _____

Circle Service Visit Frequency: Annual Semi-Annual Quarterly Single Emergency

Requested Date(s) to Schedule Service Visit(s): _____
(unless deemed emergency service, please allow a 4-week window to accommodate scheduling by Pall.)

Pall Proposal No.: _____

Effective Date and Duration: This Agreement will be effective as of the date signed below, and will remain in effect:

- until on site service work has been completed by Pall,
- or until 30 days after receipt of notice of termination by either party.

Customer Billing Address: _____

Customer Comments: _____

Standard Terms and Conditions of Sale
Non-Systems – The Americas1. **Applicability: Entire Agreement:**

- 1.1. These terms and conditions of sale (these "**Terms**") are the only terms which govern the sale of the goods identified on Buyer's purchase order (the "**Goods**") by Seller to Buyer. By placing a purchase order, Buyer makes an offer to purchase the Goods pursuant to these Terms, including (a) a list of the Goods to be purchased; (b) the quantity of each of the Goods ordered; (c) the requested delivery date; (d) the unit Price for each of the Goods to be purchased; (e) the billing address; and (f) the delivery location (the "**Basic Purchase Order Terms**"), and on no other terms.
- 1.2. The accompanying quotation, proposal, confirmation of sale, invoice, order acknowledgment or similar document delivered by Seller to Buyer (the "**Sales Confirmation**"), the Basic Purchase Order Terms and these Terms (collectively, this "**Agreement**") comprise the entire agreement between the parties, and supersede all prior or contemporaneous understandings, agreements, negotiations, representations and warranties, and communications, both written and oral. These Terms prevail over any of Buyer's general terms and conditions of purchase regardless whether or when Buyer has submitted its purchase order or such terms. Fulfillment of Buyer's order does not constitute acceptance of any of Buyer's terms and conditions and does not serve to modify or amend these Terms.
- 1.3. Notwithstanding anything herein to the contrary, if a written contract signed by both parties is in existence covering the sale of the Goods covered hereby, the terms and conditions of said contract shall prevail to the extent they are inconsistent with these Terms.

2. **Non-delivery:**

- 2.1 The quantity of any installment of Goods as recorded by Seller on dispatch from Seller's Shipment Point (as defined in **Section 4**) is conclusive evidence of the quantity received by Buyer on delivery unless Buyer can provide conclusive evidence proving the contrary.
- 2.2 Seller shall not be liable for any non-delivery of Goods (even if caused by Seller's negligence) unless Buyer gives written notice to Seller of the non-delivery within 10 days of the date when the Goods would in the ordinary course of events have been received.
- 2.3 Any liability of Seller for non-delivery of the Goods shall be limited to replacing the Goods within a reasonable time or adjusting the invoice respecting such Goods to reflect the actual quantity delivered.

3. **Delivery:**

- 3.1 The Goods will be delivered within a reasonable time after the receipt of Buyer's purchase order, subject to availability of finished Goods. The delivery and/or shipping schedule is the best estimate possible based on conditions existing at the time of Seller's Sales Confirmation or Seller's quotation and receipt of all specifications, as applicable, and in the case of non-standard items, any such date is subject to Seller's receipt of complete information necessary for design and manufacture. Seller shall not be liable for any delays, loss or damage in transit or for any other direct, indirect, or consequential damages due to delays, including without limitation, loss of use.
- 3.2 Seller may, in its sole discretion, without liability or penalty, deliver partial shipments of Goods to Buyer and ship the Goods as they become available, in advance of the quoted delivery date. If the Goods are delivered in installments, then insofar as each shipment is subject to the same Agreement, the Agreement will be treated as a single contract and not severable.
- 3.3 Seller shall make the Goods available to Buyer at Seller's factory or designated shipment point (each, "**Seller's Shipment Point**") using Seller's standard methods for packaging and shipping such Goods. Buyer shall take delivery of the Goods within 5 days of Seller's written notice that the Goods have been delivered to the Seller's Shipment Point.
- 3.4 If for any reason Buyer fails to accept delivery of any of the Goods on the date fixed pursuant to Seller's notice that the Goods have been delivered at the Seller's Shipment Point, or if Seller is unable to deliver the Goods at the Seller's Shipment Point on such date because Buyer has not provided appropriate instructions, documents, licenses or authorizations: (i) title and risk of loss to the Goods shall pass to Buyer; (ii) the Goods shall be deemed to have been delivered; and (iii) Seller, at its option, may store the Goods until Buyer picks them up, whereupon Buyer shall be liable for all related costs and expenses (including, without limitation, storage and insurance).

4. **Shipping Terms:** Unless otherwise mutually agreed to in writing by the parties, delivery shall be FCA (Seller's Shipment Point) INCOTERMS 2010. At Buyer's request, Seller will, at Buyer's risk and expense, arrange for the delivery of the Goods to Buyer's site/facility and Buyer will pay, or reimburse Seller, for all freight charges, taxes, duties, entry fees, brokers' fees, special, miscellaneous and all other ancillary charges and special packaging charges incurred.

5. **Title and Risk of Loss:** Title and risk of loss passes to Buyer upon the earlier of (i) delivery of the Goods at the Seller's Shipment Point or (ii) deemed delivery pursuant to clause 3.4 above. As collateral security for the payment of the purchase price of the Goods, Buyer

hereby grants to Seller a lien on and security interest in and to all of the right, title and interest of Buyer in, to and under the Goods, wherever located, and whether now existing or hereafter arising or acquired from time to time, and in all accessions thereto and replacements or modifications thereof, as well as all proceeds (including insurance proceeds) of the foregoing. The security interest granted under this provision constitutes a purchase money security interest under the New York Uniform Commercial Code.

6. Inspection and Rejection of Nonconforming Goods:

- 6.1** Buyer shall inspect the Goods within 10 days of receipt (the "**Inspection Period**"). Buyer will be deemed to have accepted the Goods unless it notifies Seller in writing of any nonconforming Goods during the Inspection Period and furnishes such written evidence or other documentation as required by Seller. Such notification shall identify each and every alleged nonconformity of the Goods and describe that portion of the shipment being rejected. Seller shall then respond with instructions as to the disposition of the Goods.
- 6.2** If Buyer timely notifies Seller of any nonconforming Goods, Seller shall, in its sole discretion, (i) replace such nonconforming Goods with conforming Goods, or (ii) credit or refund the Price for such nonconforming Goods, together with any reasonable shipping and handling expenses incurred by Buyer in connection therewith. Buyer shall ship, at its expense and risk of loss, the nonconforming Goods to Seller's Shipment Point. If Seller exercises its option to replace nonconforming Goods, Seller shall, after receiving Buyer's shipment of nonconforming Goods, ship to Buyer, at Buyer's expense and risk of loss, the replaced Goods to the Seller's Shipment Point.
- 6.3** Buyer acknowledges and agrees that the remedies set forth in **Section 6.2** are Buyer's exclusive remedies for the delivery of Nonconforming Goods. Except as provided under **Section 6.2**, all sales of Goods to Buyer are made on a one-way basis and Buyer has no right to return Goods purchased under this Agreement to Seller.
- 6.4** If Seller delivers to Buyer a quantity of Goods of up to 5% more or less than the quantity set forth in the Sales Confirmation, Buyer shall not be entitled to object to or reject the Goods or any portion of them by reason of the surplus or shortfall and shall pay for such Goods the price set forth in the Sales Confirmation adjusted pro rata.

- 7. Services:** Seller will provide such services as are expressly described in the Sales Confirmation (collectively, the "**Services**"), during normal business hours, unless otherwise specified in the Sales Confirmation. Services requested or required by Buyer outside of these hours or in addition to the quoted or agreed upon services will be charged at Seller's then current schedule of rates, including overtime charges, if applicable, and will be in addition to the charges outlined in the Sales Confirmation.

- 8. Purchase Price:** The price for the Goods and/or Services thereof shall be Seller's quoted price. Seller may also at any time assess a fuel or energy surcharge (in addition to the price of the Goods) (the "**Purchase Price**"). The Purchase Price is based on the project schedule defined in this Agreement, Sales Confirmation or applicable contract documents. Notwithstanding anything to the contrary set out herein, in the event of any delay to Seller's delivery schedule caused by Buyer or its representatives (other than for Force Majeure or delays caused by Seller), including without limitation, a suspension of work or the project, a postponement of the delivery date or failure to timely issue of a notice of commencement or similar document, then the Purchase Price shall increase by 1% for every month or partial month of such delay and this Agreement shall be construed as if the increased Purchase Price were originally inserted herein, and Buyer shall be billed by Seller on the basis of such increased Purchase Price.

- 9. Taxes:** The Purchase Price is exclusive of any applicable federal, state or local sales, use, excise or other similar taxes, including, without limitation, value added tax, goods and services tax or other similar tax imposed by any governmental authority on any amounts payable by Buyer. All such taxes will be for Buyer's account and will be paid by Buyer to Seller upon submission of Seller's invoices. Buyer agrees to make tax accruals and payments to the tax authorities as appropriate. If Buyer is exempt from any applicable sales tax or equivalent, but fails to notify Seller of such exemption or fails to furnish its Sales Tax Exemption Number to Seller in a timely manner and Seller is required to pay such tax, the amount of any such payment made by Seller will be reimbursed by Buyer to Seller upon submission of Seller's invoices.

10. Payment:

- 10.1** Buyer shall pay all invoiced amounts due to Seller within 30 days from the date of Seller's invoice. Buyer shall make all payments hereunder by EFT, wire transfer, or check and in US dollars. Payment for foreign billing shall be in accordance with Seller's written instructions.
- 10.2** Buyer shall pay interest on all late payments at the lesser of the rate of 1.5% per month or the highest rate permissible under applicable law, calculated daily and compounded monthly. Buyer shall reimburse Seller for all costs incurred in collecting any late payments, including, without limitation, reasonable attorneys' fees. In addition to all other remedies available under these Terms or at law (which Seller does not waive by the exercise of any rights hereunder), Seller shall be entitled to suspend performance of any Purchase Order, or suspend the delivery of any Goods, if Buyer fails to pay any amounts when due hereunder and such failure continues for 5 days following written notice thereof. Additionally Seller may require payment in cash, security or other adequate assurance satisfactory to Seller when, in Seller's opinion, the financial condition of Buyer or other grounds for insecurity warrant such action.
- 10.3** All sales are subject to the approval of Seller's credit department.

10.4 Buyer may not withhold or setoff any amounts that may be claimed by Buyer against any amounts that are due and payable to Seller by reason of any set-off of any claim or dispute with Seller, whether relating to Seller's breach, bankruptcy or otherwise.

11. Limited Warranty:

11.1 Limited Warranty for Goods. Seller warrants to Buyer that for a period of twelve months from the date of delivery of the Goods, including deemed delivery pursuant to clause 3.4 above (the "**Warranty Period**"), that the Goods manufactured by Seller, when properly installed and maintained, and operated at ratings, specifications and design conditions specified by Seller, will materially conform to Seller's specifications for such Goods set forth in Seller's proposal, or, in the absence of such a proposal, such specifications for such Goods appearing in Seller's product catalogues and literature or in the Sales Confirmation, at the time of the order and will be free from material defects in material and workmanship (this "**Limited Warranty**"). Buyer shall notify Seller promptly in writing of any claims within the Warranty Period and provide Seller with an opportunity to inspect and test the Goods or service claimed to fail to meet this Limited Warranty. Buyer shall provide Seller with a copy of the original invoice for the product or service, and prepay all freight charges to return any Goods to Seller's factory, or other facility designated by Seller. All claims must be accompanied by full particulars, including system operating conditions, if applicable. If the defects are of such type and nature as to be covered by this Limited Warranty, Seller shall, at its option and in its sole discretion, either: (a) accept return of the defective Goods and furnish replacement Goods; (b) furnish replacement parts for the defective Goods; (c) repair the defective Goods; or (d) accept return of the defective Goods and return payments made, or issue credits for, such defective Goods. If Seller determines that any warranty claim is not, in fact, covered by this Limited Warranty, Buyer shall pay Seller its then customary charges for any additionally required service or products.

11.2 Limited Warranty for Services. Seller further warrants that all Services performed hereunder, if any, will be performed in a workmanlike manner in accordance with applicable law and industry standards by qualified personnel (this "**Limited Warranty for Services**"); this Limited Warranty for Services shall survive for 30 days following Seller's completion of the Services (the "**Service Warranty Period**"). In the event of a warranty claim under this Limited Warranty for Services, Buyer shall inform Seller promptly in writing of the details of the claim within the Service Warranty Period. Seller's liability under any service warranty is limited (in Seller's sole discretion) to repeating the service that during the Service Warranty Period does not meet this Limited Warranty for Services or issuing credit for the nonconforming portions of the service. If Seller determines that any warranty claim is not, in fact, covered by the foregoing Limited Warranty for Services, Buyer shall pay Seller its then customary charges for all services performed by Seller.

11.3 No Warranty as to Third Party Products. Products manufactured by a third party ("**Third Party Product**") may constitute, contain, be contained in, incorporated into, attached to or packaged together with, the Goods. Third Party Products are not covered by the warranty in Section 11.1. For the avoidance of doubt, **SELLER MAKES NO REPRESENTATIONS OR WARRANTIES WITH RESPECT TO ANY THIRD PARTY PRODUCT, INCLUDING ANY (a) WARRANTY OF MERCHANTABILITY; (b) WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE; (c) WARRANTY OF TITLE; OR (d) WARRANTY AGAINST INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS OF A THIRD PARTY; WHETHER EXPRESS OR IMPLIED BY LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE OF TRADE OR OTHERWISE.** With respect to any Third Party Product, the warranty, if any, is provided solely through the manufacturer of such Third Party Product, the terms of which vary from manufacturer to manufacturer and Seller assumes no responsibility on their behalf. For Third Party Products, specific warranty terms may be obtained from the manufacturer's warranty statement.

11.4 Other Limits. **EXCEPT FOR THE WARRANTIES SET FORTH IN SECTIONS 11.1 and 11.2, SELLER MAKES NO WARRANTY WHATSOEVER WITH RESPECT TO THE GOODS AND SERVICES, INCLUDING WITHOUT LIMITATION ANY (a) WARRANTY OF MERCHANTABILITY; (b) WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE; (c) WARRANTY OF TITLE; OR (d) WARRANTY AGAINST INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS OF A THIRD PARTY; WHETHER EXPRESS OR IMPLIED BY LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE OF TRADE OR OTHERWISE.** Seller does not warrant against, and in no event shall Seller be liable for, damages or defects arising out of improper or abnormal use, misuse, abuse, improper installation (other than by Seller), application, operation, maintenance or repair, alteration, accident, or for negligence in use, storage, transportation or handling or other negligence of Buyer. In no event shall Seller be liable for any Goods repaired or altered by someone other than Seller other than pursuant to written authorization by Seller.

11.5 Exclusive Obligation. **THIS WARRANTY IS EXCLUSIVE. THE LIMITED WARRANTY AND THE LIMITED WARRANTY FOR SERVICES ARE THE SOLE AND EXCLUSIVE OBLIGATIONS OF SELLER WITH RESPECT TO THE DEFECTIVE GOODS AND SERVICES. SELLER SHALL NOT HAVE ANY OTHER OBLIGATION WITH RESPECT TO THE GOODS, SERVICES, OR ANY PART THEREOF, WHETHER BASED ON CONTRACT, TORT, STRICT LIABILITY, OR OTHERWISE. THE REMEDIES SET FORTH IN SECTIONS 11.1 AND 11.2 SHALL BE THE BUYER'S SOLE AND EXCLUSIVE REMEDY AND SELLER'S ENTIRE LIABILITY FOR ANY BREACH OF THE LIMITED WARRANTY SET FORTH IN SECTION 11.1 AND 11.2.**

11.6 Buyer Breach. In no event shall Buyer be entitled to claim under the above Limited Warranties if Buyer is in breach of its obligations, including but not limited to payment, hereunder.

12. Limitation of Liability:

12.1 **IN NO EVENT SHALL SELLER BE LIABLE FOR ANY CONSEQUENTIAL, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR PUNITIVE DAMAGES, LOST PROFITS OR REVENUES OR DIMINUTION IN VALUE, INCLUDING WITHOUT LIMITATION, REMANUFACTURING COSTS AND REWORK COSTS, DE-INSTALLATION OR RE-INSTALLATION COST, WHETHER OR NOT THE POSSIBILITY OF SUCH DAMAGES HAS BEEN DISCLOSED IN ADVANCE BY BUYER OR COULD HAVE BEEN REASONABLY FORESEEN BY BUYER, REGARDLESS OF THE LEGAL OR EQUITABLE THEORY (TORT, CONTRACT, OR**

OTHERWISE) UPON WHICH THE CLAIM IS BASED, AND WHATEVER THE FORUM, WHETHER ARISING OUT OF OR IN CONNECTION WITH THE MANUFACTURE, PACKAGING, DELIVERY, STORAGE, USE, MISUSE OR NON-USE OF ANY OF ITS GOODS OR SERVICES OR ANY OTHER CAUSE WHATSOEVER.

12.2 IN NO EVENT SHALL SELLER'S AGGREGATE LIABILITY ARISING OUT OF OR RELATED TO THIS AGREEMENT, WHETHER ARISING OUT OF OR RELATED TO BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, EXCEED THE TOTAL OF THE AMOUNTS PAID TO SELLER FOR THE GOODS SOLD HEREUNDER

12.3 The limitation of liability set forth in **Section 12.2** above shall not apply to (i) liability resulting from Seller's gross negligence or willful misconduct and (ii) death or bodily injury resulting from Seller's acts or omissions.

- 13. Cancellation:** Buyer may not cancel this Agreement after Sales Confirmation unless all the details are approved in writing by the parties, including Buyer's agreement to pay a stated amount of termination charges.
- 14. Termination:** In addition to any remedies that may be provided under these Terms, Seller may terminate this Agreement with immediate effect upon written notice to Buyer, if Buyer: (i) fails to pay any amount when due under this Agreement and such failure continues for 10 days after Buyer's receipt of written notice of nonpayment; (ii) has not otherwise performed or complied with any of these Terms, in whole or in part; or (iii) becomes insolvent, files a petition for bankruptcy or commences or has commenced against it proceedings relating to bankruptcy, receivership, reorganization or assignment for the benefit of creditors.
- 15. Changes:** Seller shall not be obligated to implement any changes or variations in the scope of work described in Seller's Documentation unless Buyer and Seller agree in writing to the details of the change and any resulting price, schedule or other contractual modifications. This includes any changes or variations necessitated by a change in applicable law occurring after the effective date of this Agreement including these Terms.
- 16. Intellectual Property Infringement:** Buyer has no authorization to make any representation, statement or warranty on behalf of Seller relating to any Goods sold hereunder. Buyer shall indemnify and defend, at its own expense, Seller against claims or liability for U.S. or applicable foreign patent, copyright, trademark or other intellectual property infringement and for product liability arising from the preparation or manufacture of the Goods according to Buyer's specifications or instructions, or from Buyer's unauthorized or improper use of the Goods or part thereof, or from any changes or alterations to the Goods or part thereof made by persons other than Seller, or from the use of the Goods in combination with products not furnished by Seller or from the manufacture or sale or use of Buyer products which incorporate or integrate the Goods.
- 17. Ownership of Materials:** All ideas, concepts, whether patentable or not, devices, inventions, copyrights, improvements or discoveries, designs (including drawings, plans and specifications), estimates, prices, notes, electronic data and other documents or information that are: a) created, prepared, reduced to practice or disclosed by Seller; and/or b) based upon, derived from, or utilize the Confidential Information of Seller, and all related intellectual property rights, shall at all times remain Seller's property. No right, title or interest in any patents, trademarks, trade names or trade secrets, or in any pattern, drawing or design for any of the Goods or in any other Seller intellectual property right, shall pass or transfer to the Buyer and Seller shall at all times retain ownership rights therein. Notwithstanding the foregoing, Seller grants Buyer a non-exclusive, non-transferable license to use any such material to the extent necessary and solely for Buyer's use of the Goods purchased by Buyer from Seller hereunder. Buyer shall not disclose any such material to third parties without Seller's prior written consent. As a condition to Seller's delivery to Buyer of the Goods, Buyer shall not, directly or indirectly, and shall cause its employees, agents and representatives not to: (i) alter or modify the Goods, (ii) disassemble, decompile or otherwise reverse engineer or analyze the Goods, (iii) remove any product identification or proprietary rights notices, (iv) modify or create derivative works, (v) otherwise take any action contrary to Seller's rights in the technology and intellectual property relating to the Goods, (vi) assist or ask others to do any of the foregoing.
- 18. Export:** As a condition to Seller's delivery to Buyer of the Goods, Buyer agrees, with respect to the exportation or resale of the Goods by Buyer, to comply with all requirements of the International Traffic in Arms Regulations ("ITAR") and the Export Administration Regulations ("EAR"), regulations issued thereunder and any subsequent amendments thereto, and all other national, including, but not limited to, European, government laws and regulations on export controls, including laws and regulations pertaining to export licenses, restrictions on export to embargoed countries and restrictions on sales to certain persons and/or entities. Buyer further agrees that the shipment and/or delivery of the Goods by Seller is contingent upon Seller obtaining all required export authorizations, licenses, and permits (collectively, "Authorizations") and Buyer agrees that Seller shall not be liable to Buyer for any failure or delay in the shipment or delivery of the Goods if such Authorizations are delayed, conditioned, denied or not issued by the regulatory or governmental agencies having jurisdiction over such Authorizations.
- 19. Confidentiality:** If Seller discloses or grants Buyer access to any research, development, technical, economic, or other business information or "know-how" of a confidential nature, whether reduced to writing or not, Buyer will not use or disclose any such information to any other person or company at any time, without Seller's prior written consent. In the event that Buyer and Seller have entered into a separate confidentiality agreement (the "Confidentiality Agreement"), the terms and conditions of the Confidentiality Agreement shall take precedence over the terms of this paragraph.
- 20. No Waiver:** No waiver by Seller of any of the provisions of this Agreement is effective unless explicitly set forth in writing and signed by Seller. Seller's failure to exercise, or to delay in exercising, any right, remedy, power or privilege arising from this Agreement, or to insist on Buyer's strict performance of these Terms shall not operate as or be construed as a waiver by Seller.
- 21. Force Majeure:** Whenever performance by Seller of any of its obligations hereunder, is substantially prevented by reason of any act of God, strike, lock out, or other industrial or transportation disturbance, fire, lack of materials, law, regulation or ordinance, war or war

conditions, or by reason of any other matter beyond its reasonable control, then such performance shall be excused, and deemed suspended during the continuation of such event and for a reasonable time thereafter, delayed, or adjusted accordingly.

- 22. No Third-Party Beneficiaries:** This Agreement is for the sole benefit of the parties hereto and their respective successors and permitted assigns and nothing herein, express or implied, is intended to or shall confer upon any other person or entity any legal or equitable right, benefit or remedy of any nature whatsoever under or by reason of these Terms.
- 23. Relationship of the Parties:** The relationship between the parties is that of independent contractors. Nothing contained in this Agreement shall be construed as creating any agency, partnership, joint venture or other form of joint enterprise, employment or fiduciary relationship between the parties, and neither party shall have authority to contract for or bind the other party in any manner whatsoever.
- 24. Validity:** If any provision of this Agreement, the Sales Confirmation or these Terms is held by any competent authority to be invalid or unenforceable in whole or in any part, such provision shall be ineffective, but only to the extent of such invalidity or unenforceability, without invalidating the remainder of such provision nor the other provisions, which shall not be affected.
- 25. Governing Law:** This Agreement, and all the rights and duties of the parties arising from or relating in any way to the subject matter of this Agreement or the transaction(s) contemplated by it, shall be governed by the laws of the State of New York, without giving effect to any choice or conflict of law provision or rule (whether of the State of New York or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than those of the State of New York.
- The parties expressly exclude the application of the United Nations Conventions on Contracts for the International Sale of Goods, and further exclude the applications of the International Sale of Goods Contracts Convention Act, S.C. 1990-1991, C.13, and the International Sale of Goods Act, R.S.O. 1990, C.I. 10, as amended.
- 26. Submission to Jurisdiction:** Buyer and Seller hereby unconditionally and irrevocably submit to (and waive any objection on the grounds of inconvenient forum or otherwise) the jurisdiction of the Supreme Court of the State of New York, County of Nassau or the United States District Court for the Southern District of New York, which courts shall have exclusive jurisdiction to adjudicate and determine any suit, action or proceeding regarding or relating to this Agreement and the purchase and supply of the Goods. A judgment, order or decision of those courts in respect of any such claim or dispute shall be conclusive and may be recognized and enforced by any courts of any state, country or other jurisdiction.
- 27. No Jury Trial:** BUYER AND SELLER HEREBY IRREVOCABLY WAIVES ALL RIGHT TO TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM ARISING OUT OF OR RELATING TO THIS AGREEMENT.
- 28. Survival:** All payment, confidentiality and indemnity obligations, warranties, limitations of liability, product return, and ownership of materials provisions together with those sections the survival of which is necessary for the interpretation or enforcement of these Terms, shall continue in full force and effect for the duration stated in such provisions or the applicable statute of limitations.
- 29. Amendment and Modification:** This Agreement may only be amended or modified in a writing which specifically states that it amends this Agreement and is signed by an authorized representative of each party.



Protect Your Assets and Avoid Downtime by Upgrading to Windows 10

A LOOMING SECURITY THREAT

Microsoft is ending technical assistance and security updates for Windows 7 on January 14, 2020. To maintain the highest level of security and reduce the threat of cyber intrusion, computers must be upgraded to the Windows 10 operating system. The new Windows 10 operating system also offers advanced security protections not available on earlier versions. We recognize that updating could be a challenge for many operators as RSView is not supported by Windows 10. The Pall Water Windows 10 Upgrade will replace RSView and upgrade your operating system with little to no interruption to operations.

PALL WATER FULL-SERVICE UPGRADE

Our technical experts will simulate, test, and ship a computer ready to “plug-and-play” with the following:

- Windows 10 operating system
- FactoryTalk SE View software (the updated version of RSView)
- Transfer of existing SCADA screens or new custom views
- Data collection software (Daily Report Spreadsheet)



WHY UPGRADE TO WINDOWS 10?

1. Maintain Security Updates

Outdated operating systems will be open to security threats including hacks, malware, and viruses. These threats have the potential to cause a plant shutdown. Later versions of the Windows OS will become obsolete based on the [Windows Lifecycle Timeline](#).

2. Protect Against Ransomware

Computers running older versions of Windows are more vulnerable to ransomware. Windows 10 has a feature that prevents ransomware from locking up a user's work on their computer. The [Windows Defender Security Center](#) tool in Windows 10 allows the user to approve which apps can access and change files saved in the Desktop, Documents, Music, Pictures, and Videos folders.

3. Automate Malware Detection

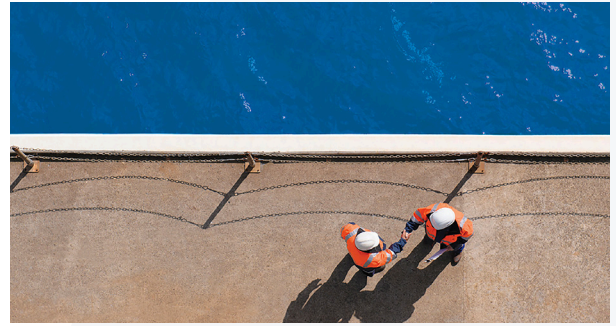
Windows 10 comes with [Windows Defender Exploit Guard](#), which scans for, quarantines and removes malware. In addition to ransomware protection, it includes other tools to block and quarantine malicious programs and isolate infected computers on your network.

4. Update More Efficiently

A technology feature in the Windows Update tool, the Unified Update Platform (UUP), significantly streamlines the update process. UUP identifies new changes to Windows 10 that the computer needs and downloads only those specific updates. The computer won't download a larger package, sparing storage space and the time it takes to install updates.

SCHEDULE YOUR PALL WATER UPGRADE

Our team of Technical Service Engineers are dedicated to keeping your water treatment systems running smoothly and your information technology secure. By leveraging decades of experience and expertise from the **Aria™ CARE Service Team**, you can upgrade your systems to the safest software with little to no interruption to operations. Call for an upgrade today or use the quote to budget for an upgrade before it is too late.



ADDITIONAL ARIA™ CARE SERVICES

LIFE-CYCLE SERVICE OFFERINGS

- **Health Check:** Top down review of systems and components to achieve an overall status, listing areas of need and suggestions for timing.
- **Process Optimization:** Pinpoint root cause of operational fluctuations since initial start-up, improve performance, increase productivity and potentially reduce chemical, energy and time demands.
- **Operator Skills Training:** Refresh skills, gain CEUs, train new recruits and learn beneficial best practices.
- **Technical Support Hotline:** We are always here to help. Call us at (866) 475.0115 to engage with a technical expert to help you troubleshoot 24 hours a day, 7 days a week.




REPLACEMENT AND EQUIPMENT UPGRADES

No need for our experts? No problem. We are still here to provide the most advanced equipment and membrane solutions in the business. Call us when you are in need of:

- **Membrane Module Replacement:** Our customer loyalty programs can assist you in the planning of your module replacement.
- **Spare Parts Supply:** Your one-stop shop for all parts associated with Aria systems.
- **Software Upgrades:** Improve performance and reliability by upgrading to state-of-the art software and the latest hardware to comply with regulatory needs.



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pallwater.com

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**West Lorne Welded Steel Standpipe
Remotely Operated Vehicle Inspection and Report
November 4, 2020**

December 4th, 2020

Ontario Clean Water Agency

17 Myrtle Street

Aylmer, ON

N5H 2H1

Att: Mike Taylor, Senior Operations Managermtaylor@ocwa.com**Tel:** 226.545.0414**Re: LMS Job #LM20119****Remotely Operated Vehicle Inspection and Report (ROV) – West Lorne Standpipe (SP)**

Mr. Taylor,

An ROV underwater camera tank inspection was performed at the above-mentioned potable water storage facility on November 4th, 2020. The ROV unit and tether cable were disinfected in accordance with AWWA-C652-19 Method #2 guidelines (200ppm solution) prior to entry into the tank interior. Landmark's ROV equipment is designated for potable water use only.

A thorough inspection of the structure including the protective coating & lining system, tank components, ladders, landings, handrails and appurtenances was completed.

Please find a comprehensive report enclosed as follows;

- | | |
|---|--------------|
| 1) Welded Steel Standpipe Inspection Report | Pages 1 – 5 |
| 2) Photographic Record of Report | Pages 6 – 25 |
| <i>Photographs are numbered in accordance with the corresponding numbers throughout the report.</i> | |
| 3) Protective Coatings & Linings Report | |
| 4) Quotation #Q20267 for all recommended upgrades and repairs | |
| 5) ROV Video | |

Should you have any questions or comments regarding the content of this quotation, please contact us at 905.319.7700.

Yours sincerely,

LANDMARK MUNICIPAL SERVICES**David Baker,**

NACE Certified Coating Inspector – Level 2, CIP #329173

Fall Arrest Update

Effective December 1st, 2016, the CSA Group updated its standards relating to fall arresters and rigid rail systems. The update has resulted in the previous standard, Z259.2.1-98 (2011) (the “2011 CSA Standard”), being separated into two new standards: (a) CSA-Z259.2.4-15 – Fall Arresters and Vertical Rigid Rails; and (b) CAN/CSA-Z259.2.5-12(2016) – Fall Arresters and Vertical Lifelines.

The impetus for the changes to the 2011 CSA Standard was driven by an incident in which a worker was critically injured while using a rigid rail type of fall protection system in 2014 – a copy of this notice is included at the end of this report. The Ontario Ministry of Labour’s investigation into the matter revealed a weakness in the design of some Class Frontal-Fixed Rail Ladder Fall Protection Systems, which may not adequately protect workers who fall backwards or who squat and roll backwards into a fall while connected by a body harness to the trolley which slides along the vertical rail.

Particular to our review of the subject potable water storage facility is CSA-Z259.2.4-15 – Fall Arresters and Vertical Rigid Rails (“2016 CSA Standard”). Generally, the revisions included in the 2016 Standard fall into 3 categories: (i) increased compatibility requirements between fall arresters, harnesses, and vertical rigid rail systems. These changes can primarily be found in sections 4.3.5, 4.4, and 4.5; (ii) the addition of 4 new mandatory testing requirements for rigid rail systems, which can be found in sections 5.3 through 6.4; and (iii) new marking requirements in sections 7.1, 7.2, and 7.3.

As per section 5.3.1, all new testing requirements must be met in order for the rigid rail system to be certified as compliant under the 2016 CSA Standard.

Landmark has followed up with the CSA Group in an attempt to determine the status of the exiting FRL’s system compliance. In the case of fall arresters and vertical rigid rails, it appears that the current system has not been certified by the CSA Group with respect to the new 2016 Standard.

Please refer to quotation #Q20267 for pricing to remove and replace the existing fall arrest system with Honeywell Safety Products – “Soll GlideLoc” which is compliant with the new 2016 Standard.

This report has been prepared by Landmark Municipal Services for the Ontario Clean Water Agency in order to provide the facility owner with a detailed description of the following:

The present condition of interior and exterior coatings, any pitting and/or corrosion on the interior of the water retaining vessel, the apparent condition of exposed foundations and the status of and recommendations for upgrades on safety equipment and other facility appurtenances.

Landmark Municipal Services has not performed a design review, an ultrasonic, x-ray, or destructive and/or non-destructive testing unless stated in the report. Comments and recommendations are based on visual inspection only and represent Landmark's professional judgement in reference to industry standards and best practices. This report may be based on information provided to Landmark which has not been independently verified. Its accuracy is limited to the time period and circumstances in which it was made. It was prepared for the specific purposes described in the report.

Any estimates regarding construction costs represent Landmark's judgement in light of our experience. Since Landmark has no control over market conditions, we do not make any representations or guarantees whatsoever with respect to such estimates or their potential variance from actual construction costs or schedules. Landmark accepts no responsibility for any potential losses.

In the case of subsurface, environmental or geotechnical conditions, the report may be based on limited testing and on the assumption that such conditions are uniform and not variable either geographically or over time. Landmark makes no other representations or warranties whatsoever and accepts no responsibility for any events that may have occurred since the report was prepared.

WELDED STEEL STANDPIPE INSPECTION REPORT

Landmark Contract No.	Inspection Date	Last Known Inspection Date
LM20119	4-Nov-20	Unknown
Inspector	Report Date	Inspected By
P. Furtado	4-Dec-20	Unknown

OWNER / CONTACT

Owner	Village of West Lorne	Contact	Mr. Mike Taylor
Project Location	West Lorne Standpipe	Title	Senior Operations Manager
Address	1171 Jane Street West Lorne, ON	Phone	226-545-0414
		Cell:	--
		Email	mtaylor@ocwa.com

TANK DESCRIPTION

Constructor	ETS Towers (Landmark)	Tank Capacity	645,900 Imperial Gallons / 2,936.32 m ³
Tank Type	Welded Steel Standpipe	Year Built	1984
Dwg's Available	Yes	Tank Diameter	32 ft. / 9.75 m
Dwg's Reviewed	Yes	HWL	127 ft. / 38.71 m - AGL
Coating System	Epoxy / Urethane	Tank Height	129 ft. / 39.32 m - AGL
Lining System	Epoxy	Grade Elev.	704 ft. / 214.58 m - ASL
Age of Paint	Unknown	Roof Type	Welded Steel Umbrella Roof

REPORT SUMMARY

Repairs performed during inspection	Photo No.	Photo No.
Aircraft Warning Light bulbs changed	110-111	--
	--	--
	--	--
Recommended Repairs		
Siteworks		
		Mixing System
	--	Design, supply and install passive or active mixing system
	--	154
	--	--
	--	--
Security		
Remove ladder cages to permit safe and effective rescue	72	*Please review cover letter for latest information regarding CSA Standard CSA-Z259.2.4-15 (Fall arresters and Vertical Rigid Rails)
Straighten ladder gate at bottom of ladder	64	
	--	
		Fall Arrest System
		Remove and replace fall arrest system on vertical ladder
		65-73
		'D' Ring required at bottom of ladder
		65
Valve Chamber / Pit		Replace 4pcs corroded 'D' rings with S.S.
Surface prep and paint valve building door, valves, and piping	26-34	69, 74, 79, 85
Supply and install 20 L.F. of aluminum kickplate on valve pit handrail	23	--
Repair broken downspout on valve building	12	--
Replace corroded baseboard heater in valve pit	34	--
		--
		--
		--
Foundations		
Repair 25 L.F. of loose parging around tank perimeter and touch-up	38-49	--
	--	--
	--	--
		Confined Space & Rescue System
	--	Rescue port base required at hatch to tank interior
	--	106
	--	Rescue port base required beneath top landing
	--	87
		--
		--
		--
Support Structure		
	--	
	--	
	--	
Anchorage		
	--	
	--	
Accessories		Coatings, Linings and Metal Condition
Apply anti-slip coating to smooth ladder rungs	65-85	Refer to Protective Coatings & Linings Report
Install 60 L.F. of additional 2" kickplate on intermediate landings	71, 75, 80, 86	--
Permanently seal blowout panel with aluminum plate	104-105	--
Replace mushroom vent with 16" S.S. Frostproof combination vent / vacuum relief unit	106-107	--
Install 60 L.F. of 5" kickplate on roof handrail	89-91	--
Perform chlorine analysis / stratification test	--	--
Inspect, repair, test, and calibrate impressed current cathodic protection system	16, 155-156	--
Supply and install L.E.D. aircraft warning light c/w new controller	110	--

Thank you for allowing Landmark Municipal Services to assist you in the maintenance of your water storage facility. To maintain the integrity of your facility, we recommend that you schedule your next inspection per the following:

Safety Inspection and Report (SIR)

2021

Clean, Inspect and Report (CIR)

2021

SIR included in CIR

Remote Inspection & Report (RIR)

2024

3 yrs after CIR

SITWORKS			Photo No.
EXTERIOR VALVE CHAMBER	Good		8-34
DRIVEWAY / WALKWAYS	Good		3-5
OVERFLOW SPILLWAY	Fair - Concrete pad is cracked		50-53
REPAIRS OR MAINTENANCE REQUIRED			

SECURITY			Photo No.
FENCE & GATES	Good		1-7
LADDER / LADDER CAGE	Ladder cage present on ladder; Ladder gate bent		63-65
HATCH LOCKS	Good		112
REPAIRS OR MAINTENANCE REQUIRED			
Remove ladder cages to permit safe and effective rescue			
Straighten ladder gate at bottom of ladder			

VALVE CHAMBER & PIT			Photo No.
CONDITION OF VALVE CHAMBER	Good		13-34
CONDITION OF PIPING	Fair - moderate corrosion throughout*		26-34
CONDITION OF VALVES	Fair - moderate corrosion throughout*		26-34
ARE THERE ANY INDICATIONS OF SETTLEMENT (Exterior)?	No		--
IS THE CONCRETE IN THE CHAMBER CRACKED, SPALLED OR LEAKING?	No		--
IS THERE ANY INDICATION OF PIPE MOVEMENT?	No		--
REPAIRS OR MAINTENANCE REQUIRED			
Repair broken downspout on valve building			
Supply and install 20 L.F. of aluminum kickplate on valve pit handrail			
Replace corroded baseboard heater in valve pit			
Surface prep and paint valve building door, valves, and piping			

FOUNDATIONS			Photo No.
ARE THERE ANY INDICATIONS OF FOUNDATION SETTLEMENT?	No		38-49
IS CONCRETE CHIPPED OR CRACKED	Yes - Approximately 25 L.F. of loose parging		38-49
IS THE SOIL AT THE BASE SATURATED OR IS THERE PONDED WATER?	No		38-49
IS THERE ANY INDICATION OF UNDERGROUND PIPE LEAKAGE?	No		38-49
IS SOIL AT BASE ERODED?	No		38-49
HOW FAR DOES THE FOUNDATION EXTEND OUT OF GROUND?	0" - 6"		38-49
REPAIRS OR MAINTENANCE REQUIRED			
Repair 25 L.F. of loose parging around tank perimeter and touch-up			

SUPPORT STRUCTURE			Photo No.
SKETCH PLATE CONDITION (TANK FLOOR)	N/I - covered in sediment		148-151
IS CYLINDER STRAIGHT?	Yes		57-62
ROOF CONDITION	Good		94-101
REPAIRS OR MAINTENANCE REQUIRED			

ANCHORAGE			Photo No.
ARE BASE PLATES DETERIORATED OR IN POOR CONDITION?	N/A		--
ARE ANCHOR BOLTS & NUTS DETERIORATED OR IN POOR CONDITION?	N/A		--
ARE ANCHOR BOLT CHAIRS DETERIORATED OR IN POOR CONDITION?	N/A		--
ARE ANCHOR BOLTS TIGHT?	N/A		--
CONDITION OF STRAP ANCHORS?	Good		37-48
REPAIRS OR MAINTENANCE REQUIRED			

ACCESSORIES

LADDERS	* To Roof	Fair* - Smooth round rungs	65-85
	* On Roof	None - Stair treads	88
LANDINGS (x 4)		Kickplate only 3" - 60 ft of 2" required	71, 75, 80, 86
REST SEATS		N/A	--
VALVE PIT HATCH	* Size	N/A	--
	* Condition	--	--
ROOF HATCHES	* Size	36" dia. steel hatch	106, 113-115
	* Condition	Hatch does not fully open because of antenna structure*	113
VENT	* Type	12" Aluminum mushroom vent	106-107
	* Condition	Poor - Coarse screen only - Replace with 16" S.S. Frostproof combination vent / vacuum relief unit	106-107
VACUUM RELIEF	* Type	30" blowout panel	104-105
	* Condition	Poor - Not self resetting - Cap with aluminum plate	104-105
PAINT RAIL ACCESS (Inspect couplings by P.Eng prior to each use)		Roof couplings - Inspect prior to use	95-101
PAINT RAIL		None - Use roof couplings	--
ROOF HANDRAIL		Poor* / 60 ft. kickplate required	89-91
GROUND LEVEL TANK ACCESS		2 pc - 36" bolted manways	38, 56
RISER AND OVERFLOW PIPING	12" inlet/outlet, 8" overflow	Good	52-53, 154
CATHODIC PROTECTION	* Type	Impressed Current - Corrpro Canada Inc.	16, 137
	* Condition	Poor - Broken ice guard inside tank / Survey recommended	155-156
TANK GROUNDING		None	--
LIGHTNING PROTECTION		None	--
OBSTRUCTION LIGHTING		Good - Bulbs changed; Upgrade to L.E.D. recommended	110-111
ANTENNAE	* Cable Routing	Good	68, 92, 108
	* Anchorage / Mounting		
	* Surveys / Warning Signage as per Safety Code 6: Health Canada	None	--
CHLORINE ANALYSIS / STRATIFICATION TESTING		Recommended	--
MIXING SYSTEM		None - Recommended	154

REPAIRS OR MAINTENANCE REQUIRED

*See Separate Coatings and Linings Report

Apply anti-slip coating to smooth ladder rungs

Install 60 L.F. of additional 2" kickplate on intermediate landings

Permanently seal blowout panel with aluminum plate

Replace mushroom vent with 16" S.S. Frostproof combination vent / vacuum relief unit

Install 60 L.F. of 5" kickplate on roof handrail

Perform chlorine analysis / stratification test

Inspect, repair, test, and calibrate impressed current cathodic protection system

Supply and install L.E.D. aircraft warning light c/w new controller

Design, supply and install passive or active mixing system

Photo No.

FALL ARREST SYSTEM

LADDER LOCATION	SYSTEM TYPE	COMMENTS	
* To Valve Pit	None	Less than 9ft	25, 27
* To Roof	Aluminum TS Rail	Remove and replace fall arrest system	65-84

REPAIRS / UPGRADES OR MAINTENANCE REQUIRED

Remove and replace fall arrest system on vertical ladder

*Please review cover letter for latest information regarding CSA Standard CSA-Z259.2.4-15

(Fall arresters and Vertical Rigid Rails)

Photo No.

TRANSFER STATION 'D' RINGS

LOCATION	YES / NO	CONDITION	
* To Roof	Yes	Corroded - Replace with S.S.	69, 74, 79, 85
* On Roof	N/A - Handrail	--	--
* At Bottom of Vertical Ladder	No	Required	65

REPAIRS OR MAINTENANCE REQUIRED

Replace 4pcs corroded 'D' rings with S.S.

'D' Ring required at bottom of ladder

CONFINED SPACE & RESCUE**RESCUE PORT BASE**

LOCATION	YES / NO	CONDITION	
* At Top of Vertical Ladder	No	Required	87
* At Hatch to Tank Interior	No	Required	106

REPAIRS OR MAINTENANCE REQUIRED

Rescue port base required at hatch to tank interior

Rescue port base required beneath top landing



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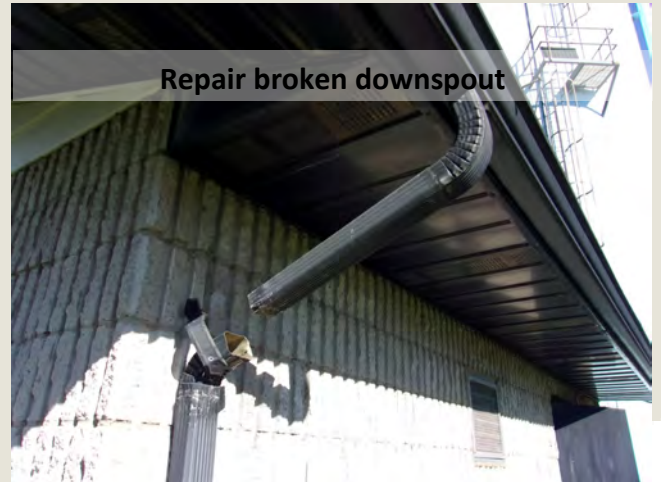
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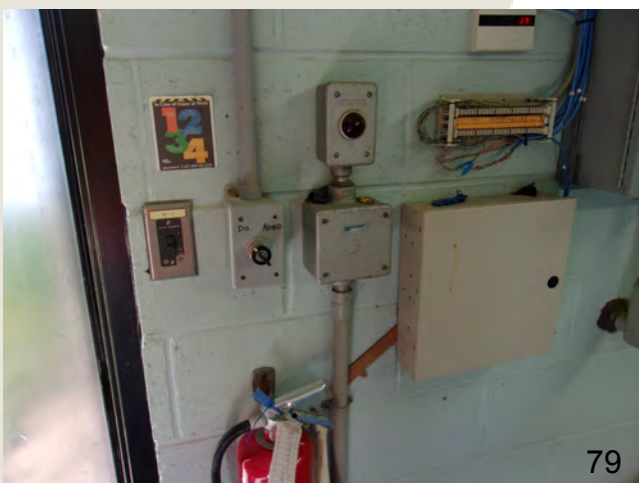
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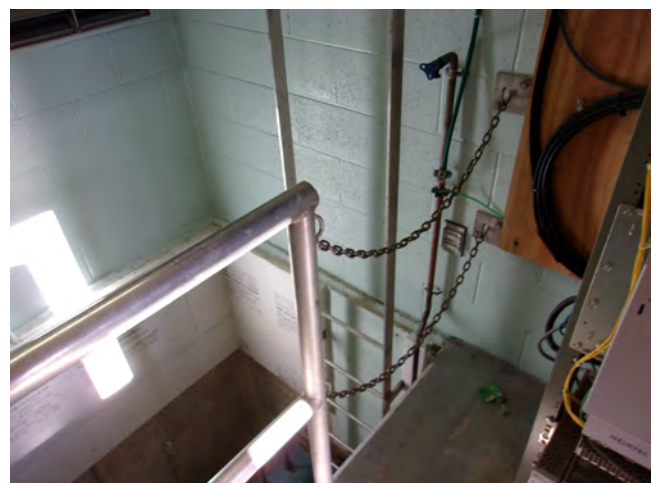
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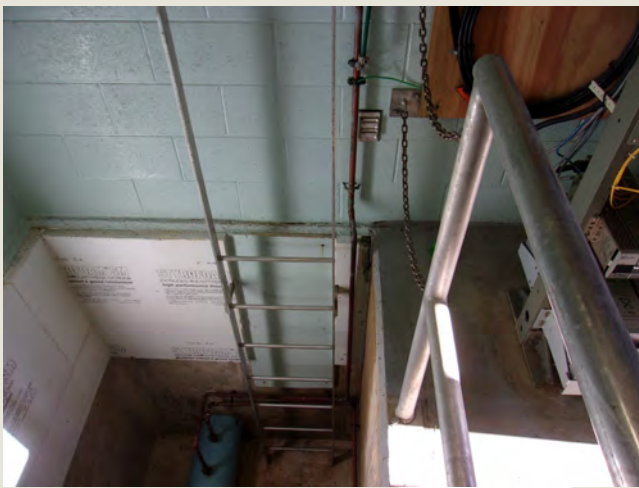
Kickplate required

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Repair loose paving

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Repair loose parging

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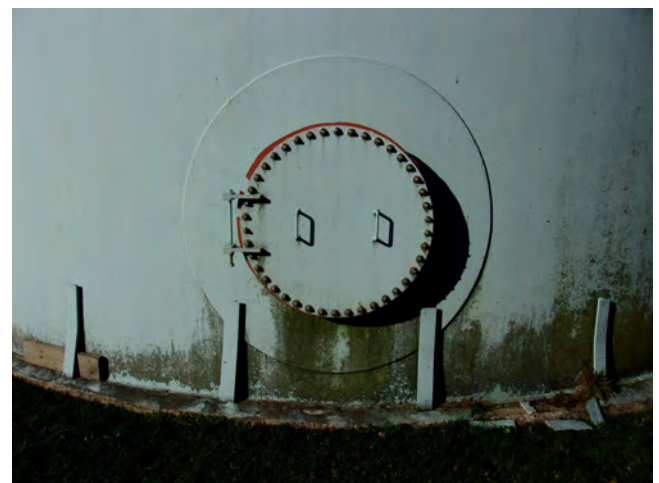
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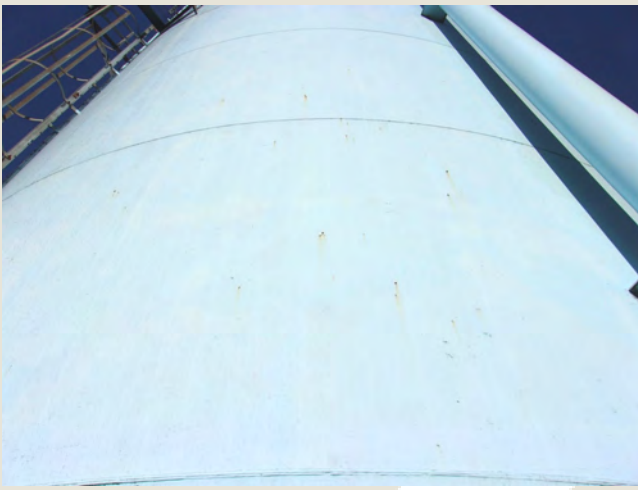
Refer to Protective Coatings and Linings report for recommendations

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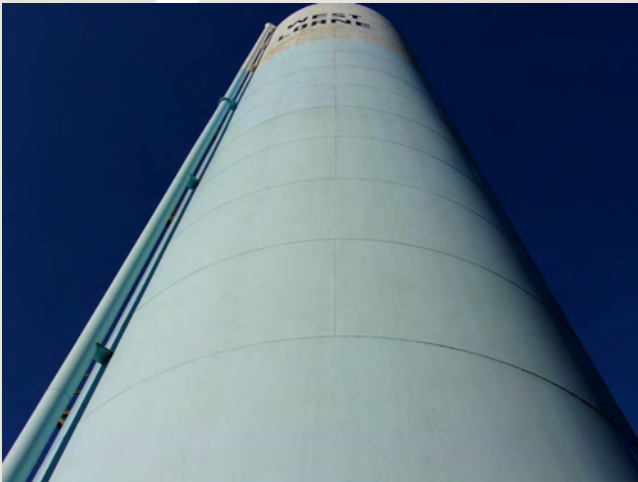
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Apply anti-slip coating on vertical ladder rungs



'D' ring required at bottom of ladder

65

Remove and replace fall arrest system



Refer to cover letter for latest update on FRL Fall Arrest System compliance under CSA

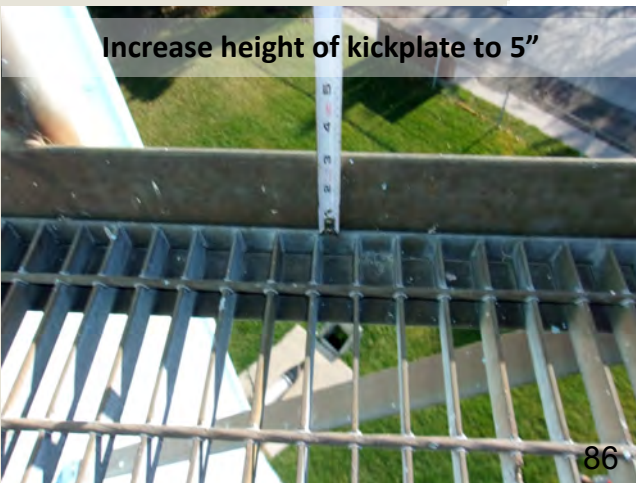
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Replace corroded 'D' rings with S.S.



69

Increase height of kickplate to 5"



71

86

Remove ladder cage to permit safe & effective rescue



72



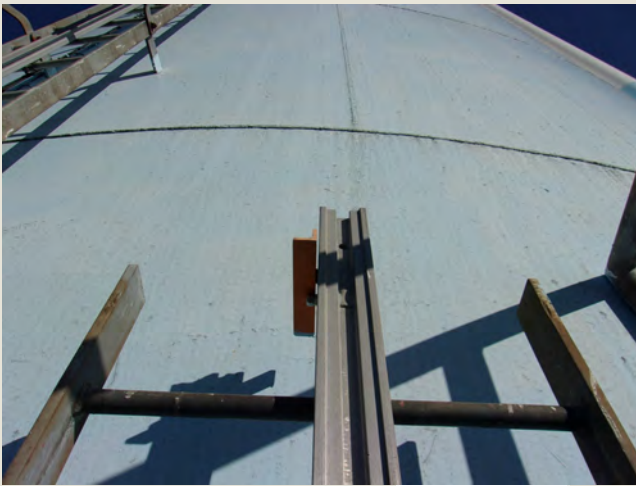
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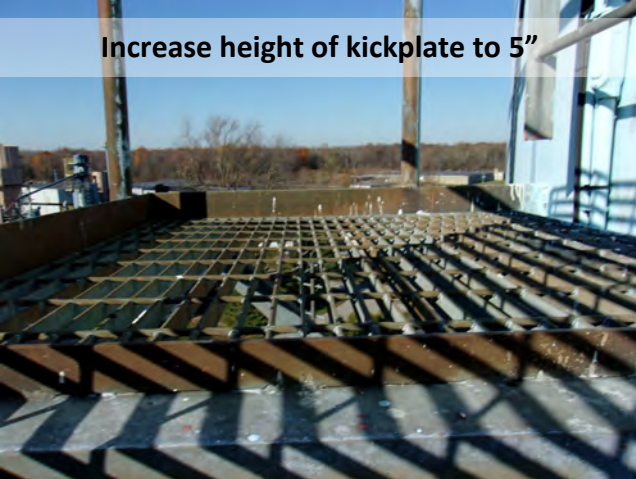


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Replace corroded 'D' rings with S.S.

74



Increase height of kickplate to 5"

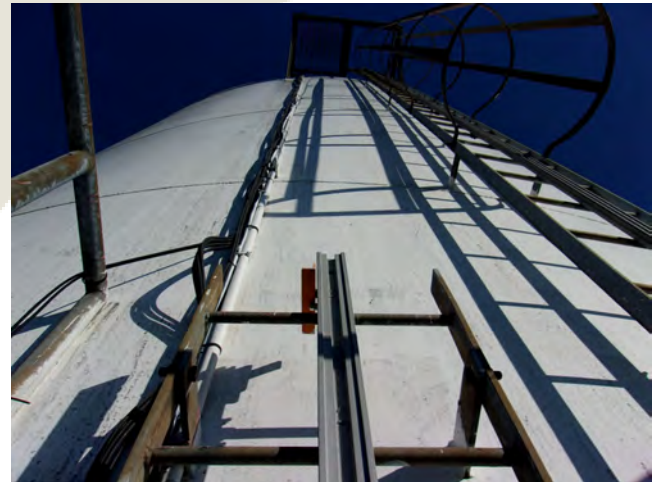
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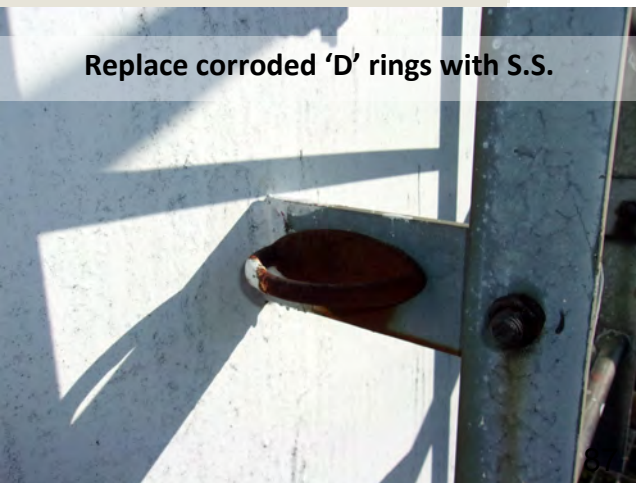
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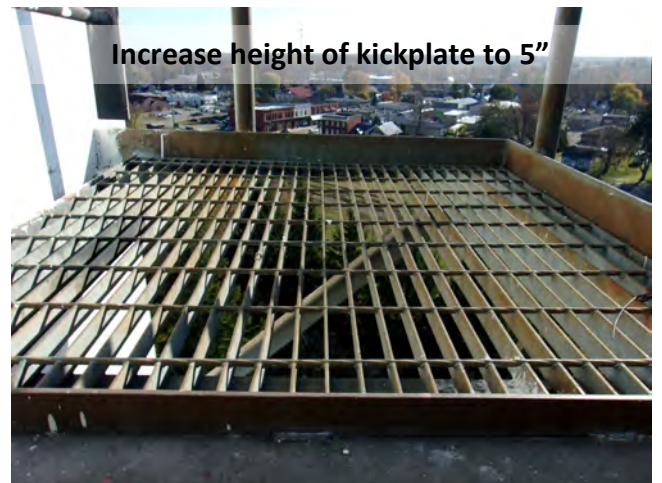


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Replace corroded 'D' rings with S.S.

79



Increase height of kickplate to 5"

80



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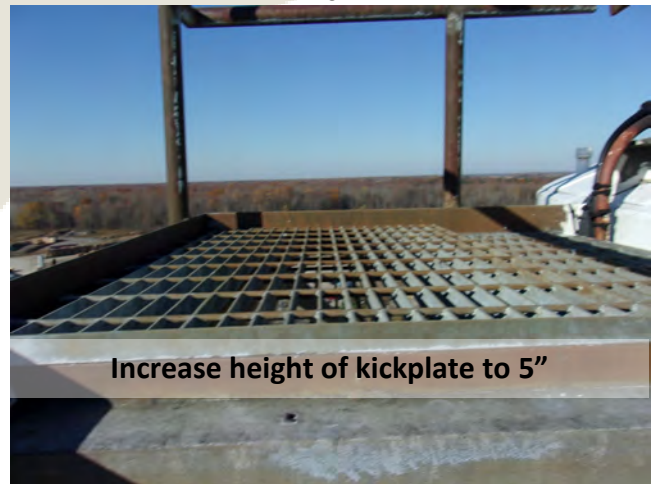


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Replace corroded 'D' rings with S.S.

85



Increase height of kickplate to 5"

86



Rescue port base required
beneath top landing

88

87



88



Install 60 ft. of kickplate on roof handrail

89



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91



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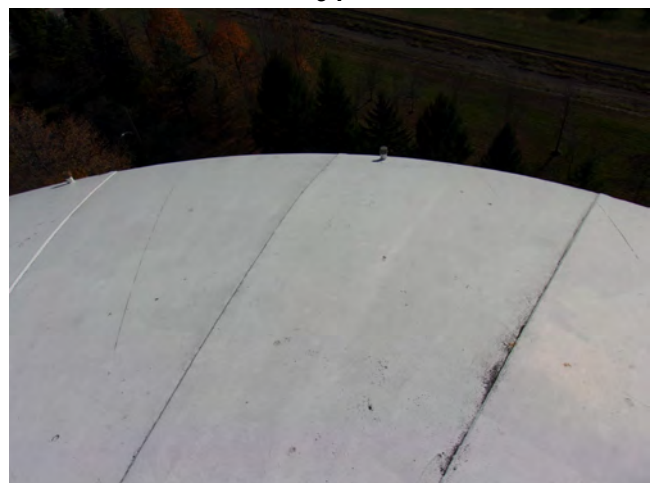
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Permanently seal blowout panel with aluminum plate

105



Rescue port base required at hatch to tank interior

106



Replace non-compliant vent with 16" frost proof combination vent / vacuum relief unit

107



Refer to *Protective Coatings and Linings* report for recommendations

108



109



Aircraft warning light bulbs replaced; Upgrade to L.E.D. recommended

110



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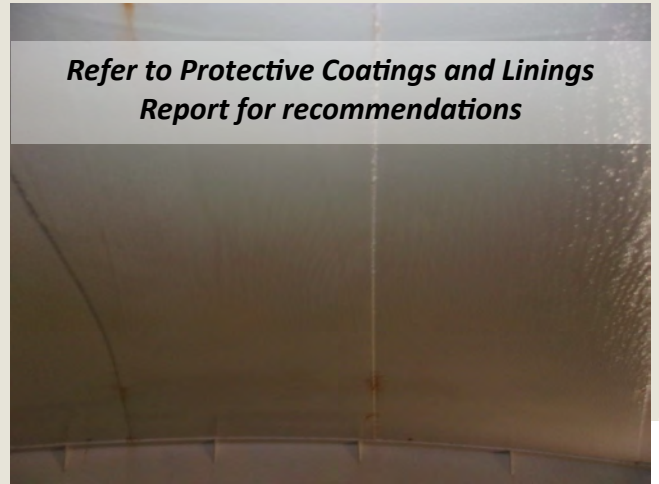
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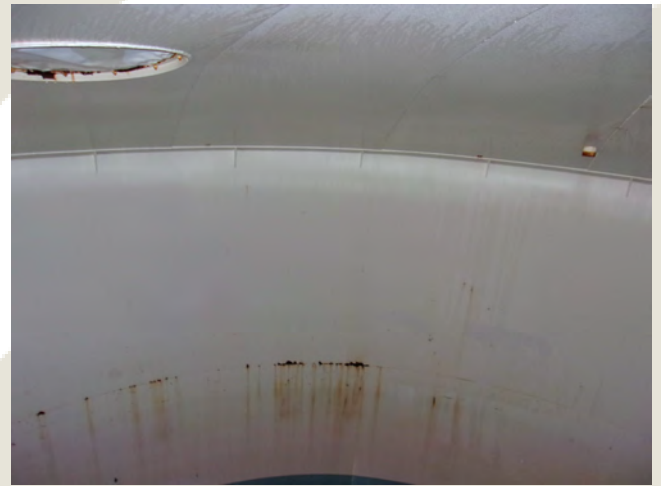
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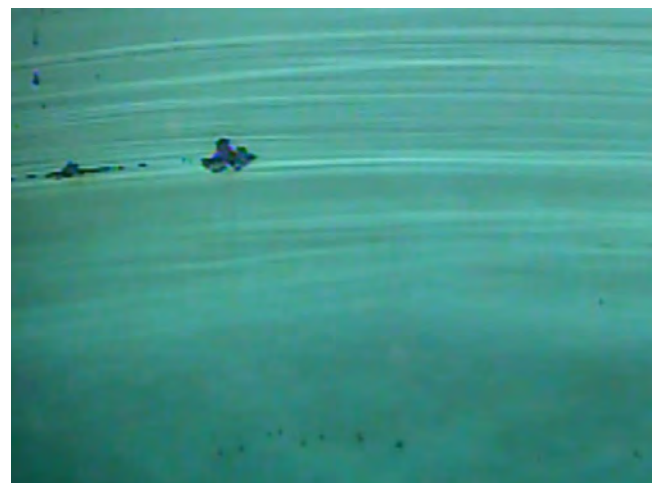
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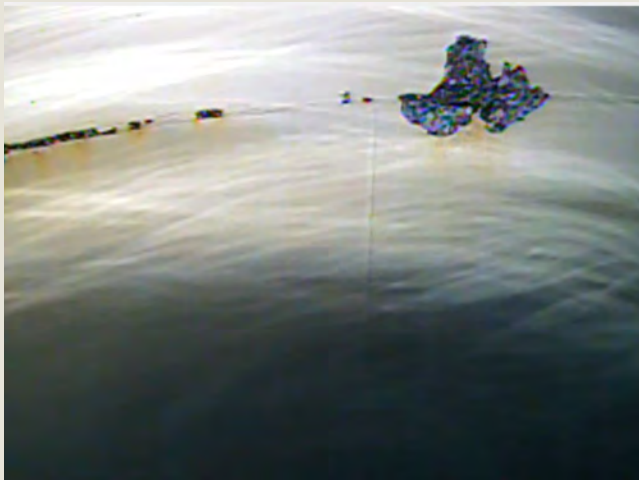


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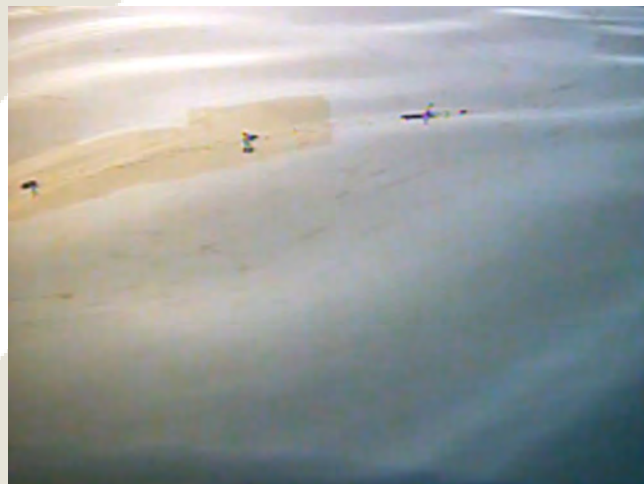


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**Refer to Protective Coatings and Linings report
for recommendations**



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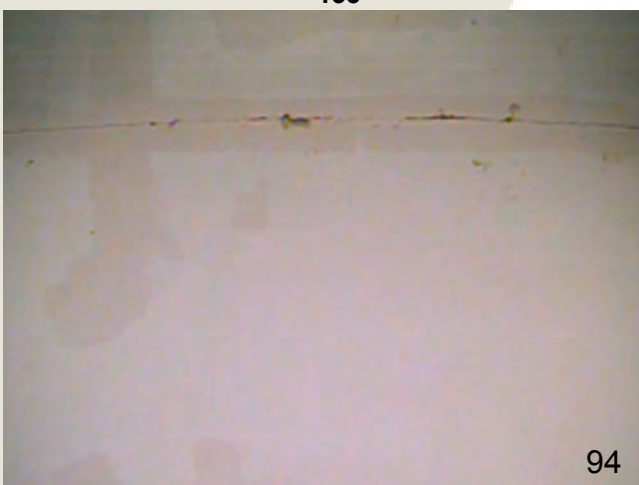
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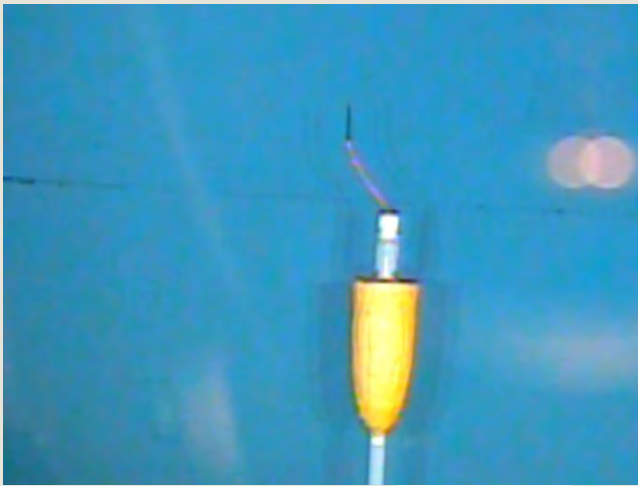


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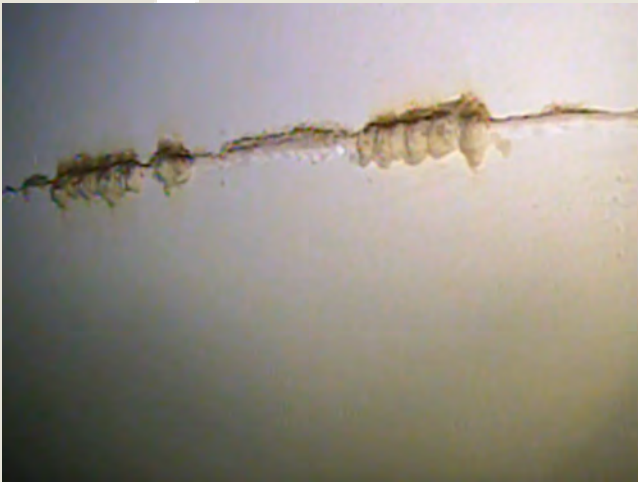


Refer to Protective Coatings and Linings Report for recommendations

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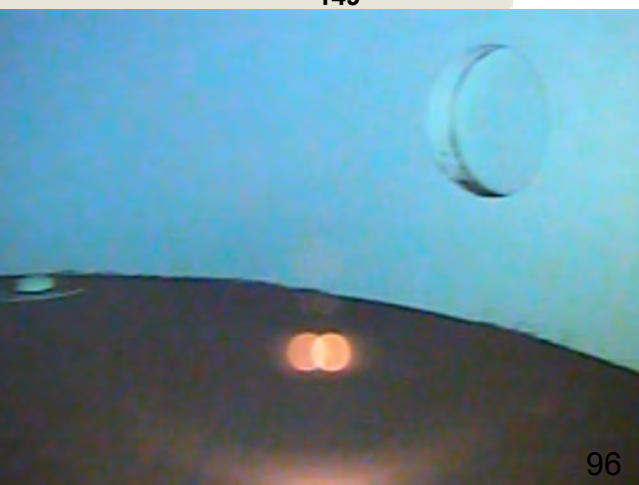
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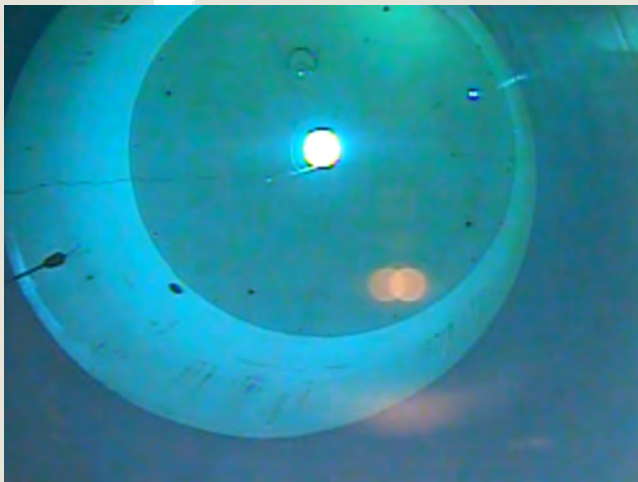
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Design, supply and install Passive or Active mixing system

Inspect and repair cathodic protection system

December 4th, 2020

Ontario Clean Water Agency

17 Myrtle Street
Aylmer, ON
N5H 2H1

Att: Mike Taylor, Senior Operations Manager

mtaylor@ocwa.com

Tel: 226.545.0414

Re: LMS Job #LM20119

**Remotely Operated Vehicle Inspection and Report (ROV) – West Lorne Standpipe (SP) –
Protective Coatings and Linings Report**

Mr. Taylor,

An ROV underwater camera tank inspection was performed at the above-mentioned potable water storage facility on November 4th, 2020. The ROV unit and tether cable were disinfected in accordance with AWWA-C652-19 Method #2 guidelines (200ppm solution) prior to entry into the tank interior. Landmark's ROV equipment is designated for potable water use only.

Note: Possible issues and defects can only be visually assessed with the ROV. The following are our findings in relation to the current condition of the coating and lining system:

Exterior

The exterior of this tower is coated with what appears to be an epoxy / urethane type of system. The shell is fairly sound but has considerable chalking and loss of sheen. There are some stone chips from grass cutting operations on the lower sections, but otherwise there is little to no appreciable corrosion, delamination or mud cracking.

The roof has a few large areas of delamination between the topcoat and the previous coat, likely the result of insufficient surface preparation or improper conditions during application. The handrail and other appurtenances such as vent and hatch frames have considerable surface corrosion.

The valve chamber piping and valves have moderate corrosion over much of their surfaces, and the entrance door exterior is very weathered.

- Adhesion testing Adhesion was performed in accordance with ASTM D3359 - 97 Method A – Standard Test Methods for Measuring Adhesion by Tape Test and results were: 4A Trace peeling or removal along incisions or at their intersection.

Interior

The interior of this tank is lined with what appears to be an epoxy which is in fair condition. There are numerous areas of corrosion and delamination and it appears that the lining is becoming porous with age and is no longer providing good barrier protection. This damage has likely been exacerbated by ice movement, especially near the high-water level where ice capping occurs, as most of these areas are along weld seams.

The condition of the cathodic protection system is not known, but it is obvious by the mineralization of some of the damaged areas that it was at least operational at one time. This should be tested to ensure correct calibration and repaired accordingly (if required).

The video shows that ice sheeting has damaged the wire protection conduit on the floor of the tank, and the wire appears to be continuous, but it may be shorted.

The floor could not be inspected because of 1 – 2cm of fine sediment build-up. A tank cleaning should be conducted in order to further assess the floor surface.

Recommendations – Exterior Surfaces

Many factors must be considered in evaluating the existing coating system with the primary goal of assessing the existing system condition, anticipated service life and in some cases for suitability of applying an overcoat system.

These factors include:

- Amount of corrosion present
- Thickness of the existing coating
- Existing number of coats
- Adhesion of the coating to the steel
- Original level of surface preparation of the steel
- Adhesion of the coating between successive coats
- Geographical location of the tank
- Degree of blistering of existing coating

Candidates for overcoating consideration usually have 4 common characteristics:

- Adhesion rating of 3A or better in accordance with ASTM D3359 Method A
- Less than 12 mils dry film thickness
- Few layers of paint
- Rust or corrosion rating of 5, 6, 7, 8, 9 or 10 in accordance with SSPC-VIS 2 / ASTM D610

Subject to further evaluation and confirmation, we suspect that this tank can be considered for a maintenance overcoat consisting of power washing at 5,000 psi, mechanically clean (grind, power tool) and locally touch-up all rust spots followed by a complete overcoat of epoxy / polyurethane finish, if completed within the next 2 to 4 years.

This would extend the life of the existing coating for approximately another **8 – 10 years** with less expenditure than a full removal and replacement. Eventually the edges of the existing system will curl

up, taking the new overcoat with it. It is difficult to estimate how long this would take to happen, and it is largely dependent on the surface tension applied by the new paint.

Methodology for this procedure would include:

1. Pressure wash cleaning of the exterior surfaces with 5,000 psi pressure including a rotating spray tip with a minimum 6" stand-off from the surface.
2. Power tool and hand tool preparation of rust spots to bare metal in accordance with SSPC SP2 and SSPC SP3 with mandatory HEPA vacuum and filters on power tool attachments.
3. Primer application to the prepared repair areas (surface tolerant epoxy at 2 to 6 mils DFT) with a minimum tie-over to intact coating of 1-inch overlap.
4. Stripe coating application to all sharp edges and welds (handrail edges and all welds on tank).
5. Overcoat primer application to the entire tank (surface tolerant epoxy at 2 to 6 mils DFT).
6. Finish coat application to the entire tank (aliphatic polyurethane at 2 to 3 mils DFT).

Alternatively, the exterior of this tank could be completely removed and replaced in order to provide a 25 to 30 year solution that would be on the same lifecycle as the interior lining system (refer to below recommendation for Tank Interior Surfaces) – See Quote #Q20267 for details.

Recommendations – Tank Interior Surfaces

The interior of this tank should be completely removed via abrasive blast cleaning to SSPC-SP10 Near White Metal Clean, and then re-lined with an AWWA – D102 ICS-3 (zinc primer, 100% solids epoxy – preferred system) or ICS-4 (optional zinc primer, 100% solids polyurethane) system.

All pitting should be repaired by pool welding, welding of patch plates or epoxy filler on the shallow pits. This should be completed within the next 3 to 6 years before leaks start to occur as a result of localized corrosion. At this time, the cathodic protection system should be assessed and repair accordingly.

The interior re-lining should coincide with the exterior painting to save on extra mobilization costs and reduce down time.

Yours Sincerely,
Landmark Municipal Services



David Baker,
NACE Certified Coating Inspector – Level 2, CIP #329173



December 4th, 2020

Ontario Clean Water Agency

17 Myrtle Street

Aylmer, ON

N5H 2H1

Att: Mike Taylor, Senior Operations Managermtaylor@ocwa.com**Tel:** 226.545.0414**Re: LMS Job #LM20119****Remotely Operated Vehicle Inspection and Report (ROV) – West Lorne Standpipe (SP) –
Recommended Upgrades #Q20267**

Mr. Taylor,

Landmark Municipal Services is pleased to provide budgetary pricing for the following repairs & upgrades at the above-mentioned potable water storage facility.

Security

- | | |
|--|---------------------|
| 1) Remove ladder cages to permit safe and effective rescue | \$ 2,400 |
| 2) Straighten ladder gate at bottom of vertical ladder | \$ No Charge |

Valve Chamber / Pit

- | | |
|---|----------------------|
| 3) Surface prep and repaint door, valves and piping | \$ 3,500 |
| 4) Supply and install 20 L.F. of aluminum kickplate on valve pit handrail | \$ 800 |
| 5) Repair broken downspout | \$ No Charge |
| 6) Replace corroded baseboard heater | \$ On Request |

Foundation

- | | |
|--|-----------------|
| 7) Repair loose parging around tank perimeter and touch-up – approx. 70 L.F. | \$ 5,000 |
|--|-----------------|

Accessories

- | | |
|--|-----------------|
| 8) Apply anti-slip coating to ladder rungs | \$ 2,800 |
| 9) Supply and install 16" S.S. combination vent / vacuum relief unit and cap existing blowout panel. New vent curb to be combination hatch lid to allow proper hatch opening | \$ 7,500 |

- | | |
|---|----------------------|
| 10) Install approx. 60 L.F. of 5" steel kickplate on roof handrail and 60 L.F. of 2" kickplate on 4pcs landings | \$ 8,800 |
| 11) Perform chlorine residual / thermal stratification study. | \$ 4,400 |
| 12) Inspect, test, and calibrate impressed cathodic protection system | \$ On Request |
| 13) Upgrade ACWL to L.E.D. c/w new controller | \$ 6,700 |

Mixing System

- | | |
|--|----------------------|
| 14) Design, supply and install passive or active mixing system | |
| a. Passive mixing system | \$ On Request |
| b. Active mixing system | \$ On Request |

Landmark's sales associates can provide further information on the types of mixing systems available and the options that would be most suitable for this style of tank

Fall Arrest System

- | | |
|--|-----------------|
| 15) Replace fall arrest system on vertical ladders
<i>Fall arrest trolleys are available for \$950 each</i> | \$ 9,200 |
| 16) Install 1pc S.S. 'D' ring at bottom of ladder and replace 4pcs corroded 'D' rings with S.S. | \$ 1,200 |

Confined Space & Rescue System

- | | |
|---|-----------------|
| 17) Rescue port base required at hatch to tank interior and under top landing | \$ 7,000 |
|---|-----------------|

Budgetary Pricing – Coatings & Linings – Refer to Landmark Coatings & Linings Report

EXTERIOR SURFACES

18) Option #1 – OVERCOAT (8 – 10 year solution)

- | | |
|---|-----------------|
| Clean and remove tank sediment. | \$ 5,000 |
| - Disinfect tank interior per AWWA C652-11 Method #2. Vacuum truck / off-site disposal, if required, is extra | |

Site Restoration, Site Facilities, General Conditions, etc.	\$ 30,000
---	------------------

System Type:	Epoxy / Polyurethane
Surface Preparation:	WJ4 Power Wash / Spot Prepare to SSPC-SP 2, 3, and 11
Intermediate Coat:	Epoxy
Finish Coat:	High Solids Polyurethane
Logo:	As Existing

Budget Price:	<u>\$ 220,000 - \$ 295,000</u>
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Exterior Overcoat Total:	\$ 255,000 - \$ 330,000
---------------------------------	--------------------------------

19) Option #2 – FULL REMOVAL AND REPLACEMENT (25 – 30 year solution)

Clean and remove tank sediment.	\$ 5,000
- <i>Disinfect tank interior per AWWA C652-11 Method #2. Vacuum truck / off-site disposal, if required, is extra</i>	
Scaffold and enclosure system	\$ 350,000
Site Restoration, Site Facilities, General Conditions, etc.	\$ 65,000
System Type:	Outside Coating System No. 4 (OCS-4)
Surface Preparation:	SSPC-SP10
Prime Coat:	Zinc-Rich Primer
Intermediate Coat:	Aliphatic Polyurethane
Finish Coat:	Fluoropolymer
Logo:	As Existing
Budget Price:	<u>\$ 350,000 - \$ 435,000</u>
Exterior Replacement Total:	\$ 770,000 - \$ 855,000

INTERIOR SURFACES

20) REMOVAL AND REPLACEMENT

Clean and remove tank sediment.	\$ 5,000
- <i>Disinfect tank interior per AWWA C652-11 Method #2. Vacuum truck / off-site disposal, if required, is extra</i>	
System Type:	Inside Coating System No. 3 (ICS-3)
Surface Preparation:	SSPC-SP10
Prime Coat:	Zinc-Rich Urethane
Finish Coat:	100% Solids Epoxy
OR	
System Type:	Inside Coating System No. 4 (ICS-4)
Surface Preparation:	SSPC-SP10
Prime Coat:	Optional - Zinc Rich Urethane
Finish Coat:	100% Solids Polyurethane
Budget Price:	<u>\$ 390,000 - \$ 470,000</u>
Allowance for unknown steel repairs (identified / quantified post-sandblast)	<u>\$ 25,000 - 30,000</u>
Interior Replacement Total:	\$ 420,000 - \$ 505,000

**H.S.T. not included in above pricing*

*Quotation is confidential and shall not be distributed without Landmark's knowledge and written approval. Landmark inspections, reporting format and qualifications are in accordance with AWWA manual M42, chapters 8 and 9. All employees of Landmark Municipal Services have been trained and certified in Working At Heights, Fall Arrest and High Level Rescue, Confined Space Work and Rescue, WHMIS Worker Training, St. John Ambulance Safety Oriented First Aid and Cardiopulmonary Resuscitation. In addition, all activities conducted at heights by staff of LMS are fulfilled under strict guidelines based on involvement with the Ontario Ministry of Labour requirements outlined in the current Ontario Occupation Health & Safety Act, R.R.O. 1990, Regulation 851 amended to O.Reg. 629/05, and Section 26, O. Reg. 213/91.

Fixed Rail Ladder (FRL) Fall Protection System

Issued: May 20, 2014

Content last reviewed: May 2014

Disclaimer: This resource has been prepared to help the workplace parties understand some of their obligations under the Occupational Health and Safety Act (OHSA) and regulations. It is not legal advice. It is not intended to replace the OHSA or the regulations. [FOR FURTHER INFORMATION PLEASE SEE FULL DISCLAIMER](#)

Hazard summary

A worker descending a vertical ladder on a water tower in 2014 was critically injured after falling five metres while properly using a Class Frontal-Fixed Rail Ladder (Class FRL) Fall Protection System. A Class FRL Fall Protection System is a type of vertical fall protection using a permanently installed metal rail anchoring system with an automatic fall arresting device called the "trolley" or "carriage".

The investigation revealed a weakness in the design of some Class FRL Fall Protection Systems, which may not adequately protect workers who fall backward or who squat and roll backwards into a fall while connected by a body harness to the trolley which slides along the vertical rail. If a worker leans back, the trolley's internal braking system can be pulled off the rail, allowing the trolley to slide down the rail. If a worker falls backwards or squats and rolls backward into a fall (as opposed to falling straight down or inwards towards the ladder) the trolley may not lock, allowing a worker to fall freely. In the 2014 incident, the worker fell from a water tower ladder as shown in Figure 1.

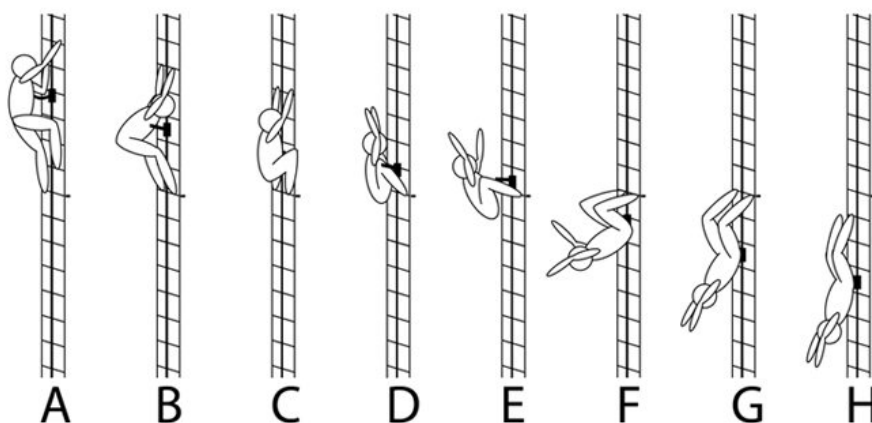


Figure 1: How the water tower worker fell

- A. The worker is descending properly using the fall protection system.
- B. The worker bends at the waist.
- C. The worker's legs fold into a squat position while the worker's hands catch the next rung. The squat position allows the trolley to travel below the height of the worker's knees.
- D. As the worker begins to roll backward their hands release from rung, and the tension in the trolley connection increases enough to remove all the slack out of the full body harness and slide the chest D-ring towards the waist.
- E. This tension in the connection to the trolley forces the worker into a tight squatting position while rotating around the rung that the worker's feet are on.
- F. The trolley connection remains in tension as the trolley travels below the rung that the worker's feet are on.
- G. The connection to the trolley, now in tension between the worker's legs prevents the engagement of the braking mechanism that would stop the workers motion.
- H. The worker, with back to the ladder, continues to fall head first while still attached to the fall protection system.

In 2010, the Ministry of Labour published a similar Alert, Class Frontal Fixed Rail Ladder (FRL) Fall Protection System, Alert #26/0510, after a worker was injured after falling back, then down 20 metres from a ladder attached to a tower while using a Class FRL Fall Protection System. In 2010, the investigation determined that the Class FRL Fall Protection System might not adequately protect workers who fall backward in a standing position.

Locations and sectors

Class FRL Fall Protection Systems are used on vertical access ladders which normally do not have a cage, such as the ladders on communication towers, chimneys and water tanks (towers).

Precautions

Even though a Class FRL Fall Protection System may be currently certified to CSA standards and/or have a CSA standards stamp on the side of the trolley unit, this should not be interpreted to guarantee worker safety and employers should not rely on such a stamp. Further investigations into the system are needed to ensure the system protects against a squatting position/rollback fall or a fall backwards.

Class FRL Fall Protection Systems whose design characteristics require the connection between the worker and the trolley to be in tension and where the trolley remains disengaged regardless of the tension force applied should not be used. Employers must take reasonable precautions to protect workers in these circumstances. This may include using alternative fall protection or access systems, as appropriate, for the adequate protection of the health and safety of workers using vertical access ladders.

Employers who own or rent structures which have a Class FRL Fall Protection System installed must ensure that the Class FRL Fall Protection System is capable of protecting a worker in the case of a squatting position/rollback fall or a fall backwards. The Ministry recommends that employers contact the manufacturer to ensure that the particular Class FRL Fall Protection System is capable of protecting a worker from any type of fall (including a backward fall and falling from a squatting position) before it is used.

Note: This Alert replaces the Class FRL Fall Protection System, Alert #26/0510 published in 2010 by the Ministry of Labour.

Resources

For more information contact:

[Infrastructure Health and Safety Association](http://www.ihsa.ca)
www.ihsa.ca

Or contact the Ministry of Labour Health & Safety Contact Centre toll-free at 1-877-202-0008.

For further reference see also:

[Ministry of Labour](http://Ontario.ca/labour)
Ontario.ca/labour

[ServiceOntario e-laws](http://www.e-laws.gov.on.ca)
www.e-laws.gov.on.ca

Remember that while complying with occupational health and safety laws, you are also required to comply with applicable environmental laws.

Please photocopy Ministry of Labour Alerts, distribute them widely and post them where people will see them.

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Tweet 7

Municipal Services

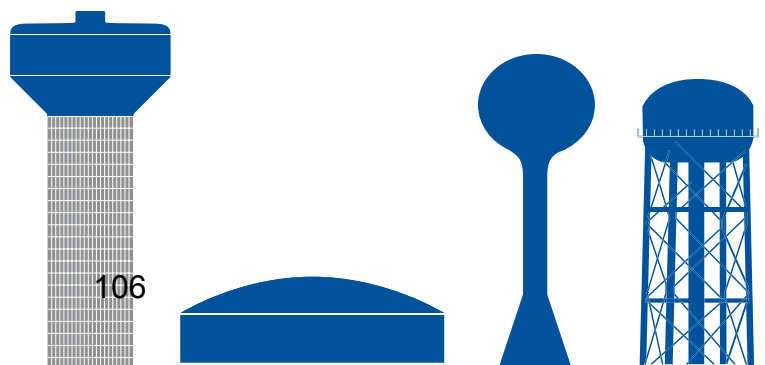
Storage Tank Maintenance

Extend Service Life

Single Source Responsibility



Expert Inspection, Maintenance And Repairs
For All Types Of Water Storage Tanks



Expert inspection, maintenance, and repairs for all types of water storage tanks

- Safe, efficient, issue-free operation of your water storage infrastructure
- Full compliance with all applicable regulations across Canada

Landmark Municipal Services (LMS) brings more than 30 years of insight and innovation in water storage to owners and operators of tanks and systems of all types. Our complete range of services and packages provide predictability, continuity and flexibility for this essential function of municipal governments.

Inspections

Regular, scheduled inspections are critical for long-term efficiency. LMS conducts various types of inspections, all with comprehensive reports detailing repairs performed or recommended and upgrade requirements, with photo documentation and related cost estimates.

CIR: Clean, Inspect & Report: AWWA (American Water Works Association) recommends that water storage tanks be washed out and inspected on a minimum three-year cycle.

SIR: Safety Inspection & Report: A thorough interior and exterior review of structure and operations for compliance with applicable government regulations.

ROV: Remotely Operated Vehicle: ROV inspections eliminate the inconvenience and expense of taking your tank out of service. LMS provides real-time, in-water evaluations with a remotely operated vehicle.

LMS inspections provide a complete review of all critical factors:

- | | |
|---------------------|--|
| • Site works | • Metal conditions |
| • Foundations | • Exterior coatings |
| • Support structure | • Interior linings |
| • Ladders/landings | • Antenna and communications equipment |
| • Accessories | • Safety and rescue equipment |
| • Valves and piping | |



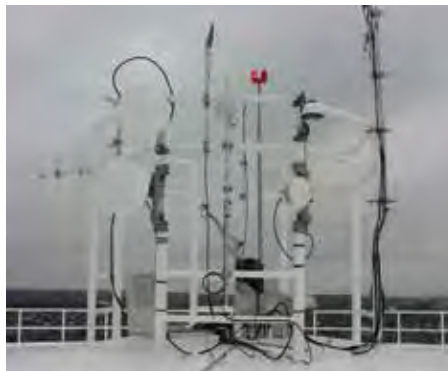
Safety Upgrades and Training

LMS can provide safe access and rescue systems that meet or exceed the requirements of the Occupational Health & Safety Act for “vessel entry and rescue” as well as “fall arrest.”



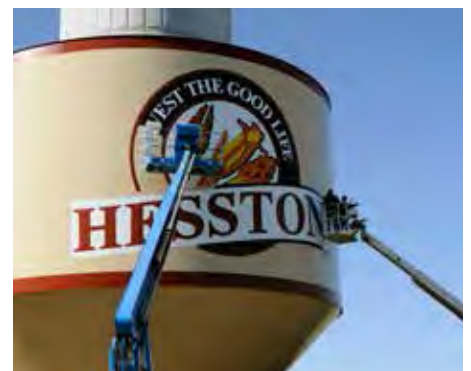
Tank Modifications

Skilled LMS professionals provide practical, proven and fully engineered modifications for all types of storage tanks, leveraging experience as one of the leading tank builders in North America. Our vertical integration adds design, fabrication and coatings expertise when needed, with single source management and responsibility.



Coatings and Linings

LMS services include all surface preparation and recoating of all interior and exterior areas. Options range from spot preparation to total blast cleaning with full containment for environmental protection. All lining materials applied to interior surfaces are ANSI and NSF 61 approved.





Inspections:

- Clean, Inspect & Report (CIR)
- Safety Inspection & Report (SIR)
- Remotely Operated Vehicle (ROV)

Safety:

- Confined space
- Fall arrest
- Training

Maintenance:

- Tank Asset Management Program (TAMP)
- Annual programs
- Coatings/linings

Lightning Protection:

- Design
- Installation
- Inspection

Antenna and Communications Systems

- Design
- Structural fabrication & installation
- Inspection

Demolition

- Partial
- Total

Modifications

- Engineering
- Tank hydrodynamic mixing systems
- Site works
- Balconies/handrills
- Manholes
- Hatches
- Venting and vacuum relief
- Welding and fabrication
- Electrical/instrumentation
- Heat trace
- Insulation and cladding
- Security systems

Landmark delivers consistent, high quality results.

Contact us today to discuss the best solution for your next project.



Landmark Coatings

Specialty Mobile Operations

Uncompromising commitment to safety. World class technical skill. Go-anywhere mobility. Landmark delivers factory applied quality to your site.



Developed and refined throughout 25 years of storage tank coatings and lining work, Landmark’s specialty crews work wherever you need them...on projects that we design, fabricate and build, or on existing infrastructure requiring repair and recoating. The Society for Protective Coatings (SSPC) has recognized our technical skills and processes with their prestigious QP-1 certification, so you can rely on thoroughly tested multi-craft services on the most demanding jobs, with the added benefits of uncompromising safety and nationwide mobility.

We work in a wide range of applications for the private sector, the military and municipal authorities:

- Industrial facilities
- Oil and gas exploration and production
- Terminals
- Aircraft fueling facilities
- Petrochemical plants
- Lead abatement
- Water and wastewater

Safety

Landmark’s uncompromising commitment to safety protects people, property and the environment. We apply equally rigorous standards for all locations, require ongoing training and testing for all crews, and utilize site evaluations, Hazard Identification and Risk Assessments (HIRA) and root cause analysis to continually drive performance improvement. Landmark employs the best available safeguards for the job, such as advanced, self-contained respiratory equipment on many applications. And we stay at the forefront of best practices and efficient reporting with our membership in ISNetworld. Core values and comprehensive safety and health programs, along with SSPC C-3 accreditation for de-leading steel structures, safeguards against environmental impact.

Skill

Landmark’s technical capabilities start with specification assistance, based on in-depth knowledge of industry suppliers and their latest products, and insights from our own operations. Our crews are fully equipped to perform surface preparation and coatings work on virtually any type of steel structure, utilizing a broad array of coatings including polyurethanes, 100% solids and fiberglass reinforced systems. Our crews perform all coatings work in accordance with the Landmark Quality Assurance Manual for Surface Preparation and Coating. They are trained to implement all of the required process controls and conduct workmanship inspections to meet or exceed all applicable standards and client expectations.



Routine quality evaluations include but are not limited to:

- Measurement of environmental conditions
- Verification of surface cleanliness prior to coating or lining
- Wet and dry film thickness measurement
- Holiday testing (low or high voltage, depending on lining thickness)

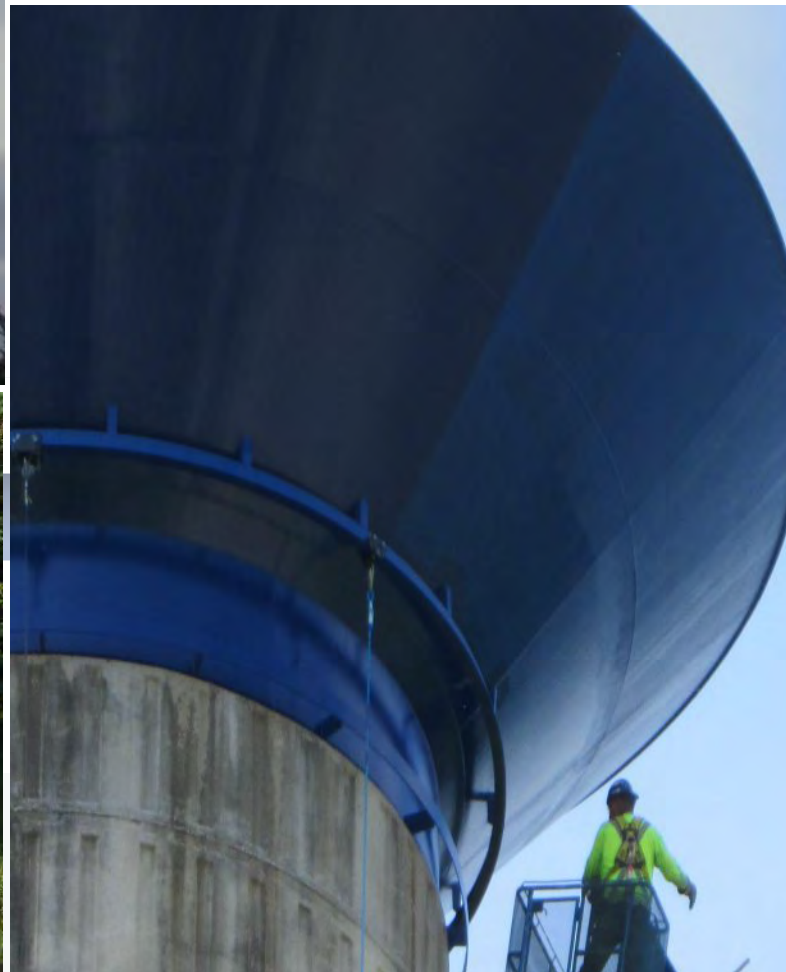
Daily logs track all inspection activity, and are available upon request.

Specialized equipment enables Landmark to manage dehumidification on work in enclosed spaces such as tank lining and recoating, and to protect the environment with blast media recycling and a full or partial containment on exterior surface preparation and coating. In addition, site specific plans for environmental monitoring, hazardous material management, and disposal of wastes are developed for all tank rehabilitations where existng coatings contain toxic metals. And for high-profile projects with community impact, Landmark has perfected the art of translating even the most intricate graphics to the public stage with precise reproduction. The utilization of dust collection systems ensures complete extraction of dusts for not only a cleaner surface prior to paint application, but as well as containment of dusts generated. This provides necessary air exchanges for confined space work.

Mobility

Landmark capabilities are completely mobile for deployment nationwide or beyond, without limitations. Specially outfitted trailers move containerized equipment to the project site, and then serve as mobile command centers for the crews. All required assets are at hand, coordinated with local supply lines as appropriate.





You can count on Landmark Mobile Specialty Coatings to reliably protect your investment and extend the life of critical infrastructure. Contact us today to discuss the best solution and a quote on your next project.



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