

Town of Minto DWQMS

Management Review

2016

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Opening Remarks

The Management Review is occurs when the DWQMS Team (top management) comes together to review and discuss the accomplishments and issues or deficiencies with the Towns water systems, DWQMS Operational Plan, and The Water Department . As part of continuous improvement, all issues resulting from this review will be delegated and given a timeline that will be documented and tracked. This review and all minutes and action items will be communicated to the owner of the system.



Quality Management System Policy for The Town of Minto Water Supply and Distribution System

The Town of Minto is committed to supplying a consistent and safe drinking water supply which meets or exceeds all regulatory standards. We strive to achieve these goals through creating and managing a system comprised of policies and procedures which exhibit ongoing evaluations, staff competency through training, communication of pertinent information with consumers and town staff, workplace safety and contingency response measures.

The management and staff of the Town of Minto are committed to producing, maintaining and continuously improving the Quality Management System.

> Passed by The Council of the Town of Minto On May 9, 2007

Adverse Drinking Water Results

Bacti testing for E.Coli & Total Coliform was completed weekly at each well in Minto's water systems. Drew Hall and Town of Minto office wells had water samples tested monthly.

These following are a total of all weekly or monthly raw, treated and distribution bacteriological samples from January 1 to October 31

Sample Monitoring – in 2016

Raw & Treated Palmerston - 176 Harriston - 130 Clifford - 132 Minto Pines - 44 Drew Hall - 14 Town office - 10

Distribution Palmerston - 176 Harriston - 132 Clifford - 132 Minto Pines - 44

Sampling

- Quarterly Nitrate/Nitrite &THM samples were collected and analyzed in 2016. All samples were within acceptable limits. Alkalinity and pH were also tested and within acceptable limits.Reg. 243/07 requires lead sampling annually at one daycare site located on William St. Palmerston. The sample was within acceptable limits.
- Sodium & Fluoride testing is due to be tested May 2017 at all well sites.
- Schedule 23 & 24 parameters (metals, pesticides & volatile organics) were tested in 2016 as per Reg. 170/03 for Minto's water systems all results were within acceptable limits. Minto Pines Schedule 23& 24 will be sampled in May 2017.
- In Dec 2016 Apr. 2017 and June 2017- Oct 2017 windows distribution systems will be sampled for lead. If no lead exceedances found, no lead testing will be required for the next 3 years.

Distribution Chlorine Residuals

Each well house has chlorine residuals monitored at 5 minute intervals on a continuing basis via the SCADA System & online Cl_2 analyzers. In 2016, chlorine residuals were also tested in each distribution system. This data is from the reporting period of Jan. -> Oct.2016

| System Location | # of samples tested | CL2 residual range | | | |
|-----------------|---------------------|--------------------|------|--|--|
| System Location | | Min | Max | | |
| Clifford | 480 | 0.54 | 1.70 | | |
| Harriston | 481 | 0.46 | 1.39 | | |
| Palmerston | 479 | 0.62 | 1.50 | | |
| Minto Pines | 213 | 0.68 | 1.31 | | |

The minimum target Cl_2 residual in a distribution system is 0.20 ppm. Due to areas of dead ends & low usage, residuals are maintained a bit higher to ensure proper disinfection is taking place.

Adverse Water Quality Incidents (AWQI)

There was one AWQI in the past year. AWQI #128230 occurred Feb 4/16 due to a loss of pressure to a portion of the Palmerston water system as a result of a valve repair being performed and a valve elsewhere in the system that was left in the closed position.

Health Unit and MOECC were both notified and flushing, chlorine residual checks and a microbiological sample were taken as precaution. All result were acceptable.

Meeting Note

- Increased valve operation training was provided to ensure this doesn't happen again

Equipment Calibration

- Flow meters for each supply well were calibrated on July 2016. No calibration problems were found.
- Online chlorine analyzers were calibrated March 2016 All equipment checked OK.
- Backflow preventers in all well houses were tested March 2016 All equipment checked OK.
- Handheld Cl₂ analyzers were checked for proper calibration limits Nov 3/16. All equipment checked OK.
- Handheld colorimeters are verified against standards weekly and used to verify the online analyzers during daily well rounds.

Meeting Note Harriston Well #2 flow meter is getting old and should have a chip replaced either the next time it has a problem or when it is calibrated next summer. If occasionally shows flow when there isn't water flowing.

Water Meter Program

Palmerston began billing on meters June 1st 2015, Harriston, Clifford and Minto Pines billing on meters started July 1st 2015. Meters complaints have decreased since last year. However there are still regular complaints after billing, about high bills resulting from leaks, but nothing compared to a year ago. Revenue – not yet seeing expected outcome, however, the new rates have only been in place since Summer 2016.

Meeting Note

- After working on the Operating Budget, revenue appears to be increasing. We will review in June of 2017

| Active Meter | <u>s Per Town</u> |
|--------------|-------------------|
| Palmerston | 1,040 |
| Harriston | 830 |
| Clifford | 344 |
| Minto Pines | 34 |
| | |

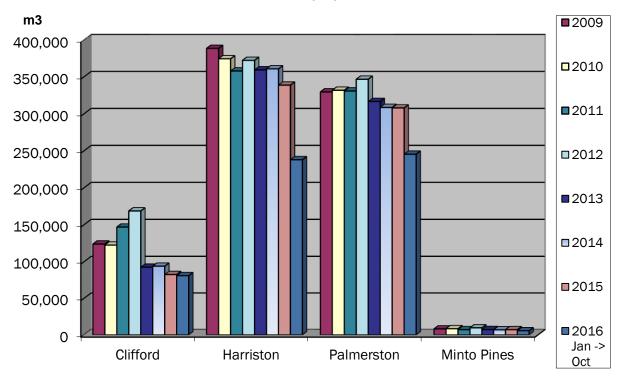
Meters that are removed for the winter are not included Palmerston 4 Harriston 4

Clifford 3

Water Consumption in Town of Minto Water Systems

| System | Popul ation | 2016 m ³ | 2015 m ³ | 2014 m ³ | 2013 m ³ | 2012 m ³ | 2011 m ³ | 2010 m ³ | 2009 m ³ |
|-----------|----------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Clifford | 800 | 80, 950 | 82,547 | 93,995 | 92,619 | 168,662 | 146,880 | 122,525 | 123,886 |
| Harriston | 2,100 | 237, 894 | 338,778 | 360,719 | 359,357 | 372,237 | 357,877 | 374,359 | 388,458 |

| Palmerston | 2,600 | 245,380 | 307,909 | 308,637 | 316,635 | 346,739 | 330,818 | 331,769 | 329,564 |
|-------------|-------|---------|---------|---------|---------|---------|---------|---------|---------|
| Minto Pines | 100 | 5,593 | 7,040 | 6,877 | 7,250 | 9,560 | 7,144 | 8,393 | 8,154 |



m3 used by System each Year

NOTE: 2016 is only JANUARY 1st to OCTOBER 31st

Despite new home construction in Clifford, Harriston and Palmerston consumption has dropped regularly since 2012.

Capital Expenditures- 2016

To meet the requirements of O. Reg. 170/03, upgrades, installation and replacement of the various system components have been completed. However, maintaining the system includes repair and replacement of individual components as required. The following figures are dollars budgeted for projects and not actual amounts spent due to the fact a lot of bills for the different projects have not been submitted at the time that this report is being prepared. The following figures have been provided by the Treasurer.

| <u>Clifford In 2016:</u> Brown St Development service Ann St. watermains | \$6,042.71 - Complete \$347,734.36 – Queen to Allan and Park to Nelson |
|--|---|
| <u>Harriston In 2016</u> Well #2 upgrades Elora St downtown | \$74,788.71 - Complete \$211,746.98 Elora St. Arthur St to William St - complete |

Palmerston In 2016

| James St replacements | \$147,388.86 – Complete |
|-----------------------|--|
| Jane St & Inkerman | \$115,689.92 – to date Jane Inkerman to Dead end |

<u>Other</u>

| SCADA upgrades | \$88,204.56 – to date |
|--------------------------|---|
| Service Truck | \$45,157.27 – shared with Wastewater |
| Ford F150 to Replace #18 | \$39,717.88 including trade in (\$1,526.40) |

Process Schematic Drawings

Distribution maps must be updated within one year of construction as per the Drinking Water Works Permit. We are responsible for getting this information to B.M. Ross who will update the Find It program.

Contractors\ Consulting Engineersneed to complete all work according to AWWA Standards as well as have this documented – this requirement was been forwarded on to all Consulting Engineers, who must also be given a copy of Minto's MDWL and permits before commencing work. Triton Engineering will be conducting this work and supplying B.M. Ross for the Find It program for the time being.

Distribution mapping-ensure maps are updated to reflect any additions or removal of water mains.

Find It Program-This was installed on our own server. This program provides access to an electronic version of town infrastructure assets. BM Ross need to be given drawing as additions or replacements occur so this program can be updated.

Boil Water Advisories

There were no boil water advisories in 2016.

Risk Assessment

A 36 month Risk assessment in depth review was completed in July 5/2016 with entire department as required by QMS Guidelines. Major changes were made to the risk assessment to ensure consistency across all Minto's systems.

Incident Outside Critical Control Limits

Five main breaks occurred in 2016. These occurrences are identified as Critical Control Point issues. Repairs are completed as per AWWA standard requirements. Form #146 Water Main Shutdown Report Log was completed for each break detailing the repair and the fact AWWA standards were followed.

The MOE has release a new Watermain Disinfection Procedure for installation of New Watermains as well as Watermain repairs.

Water Main Break Occurrences 2016

Harriston – 3 155 Arthur St W Elizabeth St and Webb X 2

Palmerston – 2 Main St and Henry St Derby St and Toronto St – summer – due to pipe deterioration

Clifford - 0

Minto Pines - 0

O. Reg. 319 - Town Office & Drew Hall Wells

Oct 15, 2015 Donna Manser Public Health Inspector performed a risk assessment on both the Drew system and the Town Office system. Both systems passed and new directives for the systems were issued. Monthly Bacti Samples are collected and sent for analysis, there has been no adverse results. The UV and filter systems are working well.

Water Quality Complaints

All water complaints are taken by front line staff at the administration office are to be channeled through the Public Works Assistant. This is done to ensure consistency & completeness. When a customer complaint is made, a record of the complaint is recorded on form #002. This form is filed in the Public Works Clerk's office and a copy is passed onto the water dept. (water sewer lead hand or ORO). A record of actions is noted by the water operator on the form & forwarded to the water clerk for filing.

Complaint form #002 is completed by the Clerical Financial Assistant at front reception, then forwarded to the Water Foreman and the Public Works Clerk and a call is made to the On-Call operator.

Summary of Water Complaints 2016 Clifford – 8 1 low pressure 1 no water-froze in basement 1 water cloudy 1 water line leak 2 high bill

- 1 shut off height
- 1 new line dig area sinking

Harriston - 17

- 1 billing issue 4 high bill
- 1 broken shut off
- 1 dirty water
- 1 no water during main break
- 1 leak at meter (condensation)
- 1 low pressure
- 1 no water froze in basement
- 1 shut off at curb leaking
- 1 new line dig area sinking
- 1 odour, 1 low pressure
- 1 temp line leaking
- 1 water line leak in driveway

Palmerston - 26

low pressure & dirty water
 leak notice assistance
 no pressure (water froze inside house)
 no water - dist. valve off
 water in basement-waterline broke inside house
 high bill can't find leak
 missing curb stop tops
 rusty water
 private property leak
 high curb shut off in driveway
 sink hole - 30->40' from curb
 low pressure
 no water during main break
 water leaking on both sides of the meter

Minto Pines - 0

These do not include water meter complaints received by other means then the front desk.

Frozen Water Line Issues

Winter of 2015/2016 did not result in any frozen services on the municipal side. As a result of the 2015 management review there was a handout for home owners developed and information placed on the website relating to frozen water lines.

Customer Feed Back

Some complaints are being received. Most are home owner issues. Our Spring & Fall flushing program continues to help us provide quality water. The dosage level of chlorine is monitored regularly in an effort to maintain the dosage at the bottom end of the scale. There are very few complaints regarding strong Cl₂ taste or smell.

Minto Pines

In 2011 a video log was done on the well. All appeared to be OK for now. The next video log is scheduled for 2017. At this time the well casing should be scraped to remove all the rust before video logging. If deficiencies are observed consideration should be made to repair or replace the well casing.

Minto Pines may possibly need a new liner or new casing. This will be a major expense for the Minto Pines system if required.

- This involves trucking in water and taking the well off line.

Video Logging of Wells 2016

During the Harriston #2 well project video logging was completed. Minto Pines will be video logged in 2017.

Accreditation, Licenses & Permits

MDWL (Municipal Drinking Water Licence) & DWWP (Drinking water works permit) were all updated and reissued for all of Minto's system in June. The PTTW (Permit to take water) still remains in effect. A revised Licence for #2 Harriston was received November 21/16 reflecting the upgrades to the well.

Nov. 1, 2016 the 12 Month surveillance audit was conducted by SIA Global there was no nonconformities identified, and one opportunity for improvement.

- List Internal Auditor Credentials

Our internal audit was performed by Todd Rogers Opening Meeting April 27/16. The result of the audit was 1 non-conformance and 2 Opportunity for Improvement (OFI's). All of the Non Conformance and opportunities for improvement have been addressed at this point and the audit report is available for review upon request.

- In April we'll have Stacey do this.

MOE Inspection Ratings for Town of Minto Water Systems

Clifford- 100% Harriston- 100% Palmerston-100% Minto Pines- 100%

These good ratings are achieved by diligent water operators and an upper management that supports the efforts of the water department to operate under the water regulation standards.

Thank you to the Mayor and Council for their continued support to the water department for providing the training to the operators and the funding to maintain and operate our systems. - Some of these were completed during SCADA change over

- Great job to All operators

Water Tower Inspections

On October 3rd 2016 the Clifford Tower was drained, cleaned, inspected and the burn marks on the roof from telecommunication equipment installation were repaired. Currently waiting on the final report from Landmark.

After Hours Callouts

After hour callouts are within reason. Due to a preventative maintenance program in the well houses after hour call outs are minimal. The few alarms which occur are tended to by the on call operator as required.

Communication to Operators

The opportunity for discussion & questions is always encouraged by the QMS Rep., ORO and Public Works Director. The importance of operator input is communicated through scheduled water operator meetings and communication memos, e-mails. Information from QMS Rep, ORO and Public Works Director is channeled through the water lead hand who then passes the information on to the water operators.

Daily morning "Tailgate" meetings are held with all Public Works departments. This is an opportunity for everyone to be informed of what the day's activities are and also to discuss safety, any concerns or important information. Each week the Public Works Supervisors and QMS Rep. meet with the Director to update projects and discuss current issues and goals to achieve, once a month the Public Works Council Chairman attends this meeting. Minutes are taken at these meetings and are available for review.

- Information has been added to the Harriston Shop computer to assist with locates.
- Maps and hydrant information has also been added.

Operational Procedures

The SOP manuals are an invaluable resource for the operators. These manuals contains system descriptions, operator responsibilities, MOE contact info, response to problems, monitoring and reporting requirements, sampling requirements, equipment maintenance schedules and procedures for well houses, distribution systems, and storage tanks, safety factors, MSDS sheets, and NSF Certification and MDWL, DWWP and the PTTW certificates. These manuals are constantly changing and require regular review and maintenance.

Ontario 1 Call

There has been a considerable increase in the number of locate request since the 1 Call service has been put in place as a result the man-hours related to locating has increased taking operators away from other duties. There has also been an increase in administration hours since there is an online component that must be completed.

The Table below shows the number of locate processed each year with May 6/14 being the day Ontario 1 Call went live.

| <u>Date</u> | <u># of Locate Request</u> |
|--|----------------------------|
| Jan 1 st -Dec 31 st 2013 | 145 |
| Jan 1 st -May 6 th 2014 | 46 – Pre On1Call |
| May 6 th -Dec 31 st 2014 | 397 |
| Jan 1 st -Dec 31 st 2015 | 514 |
| Jan 1 st – Nov 28 th | 544 (41 relocates) |

It is important to remember there is a requirement that locates be completed within five Business days of receipt. This time constraint can prove very demanding if locate volume is high and other duties must also be completed.

- Discussion of staffing issues during busy months (April -> October)

- Look into charging companies after numerous relocates are requested and work is not completed – is this something we Can do??

- Ontario Underground Infrastructure Notification System Act, 2012, S.O. 2012, c. 4

- The Ontario 1 Call program falls under the Ministry of Government and Consumer Services.

Staffing

Current Staff and certification are as follows:

| Name | Position | <u>Licenses</u> |
|-------------------|---------------------|---|
| Wayne Metzger | Water Foreman | WDS2, WWT OIT, WWC OIT |
| Mark Robertson | Waster Water Forman | WDS1, WWT2, WWC2 |
| Todd Rogers | Leadhand/Compliance | WDS2, WWT OIT, WWC OIT |
| Clarke Richardson | Operator | WDS2, WWC1 |
| Paul Freeland | Operator | WDS2, WWT OIT, WWC OIT |
| Mike Doucette | Operator | WTS1, WWT 1 (WWC2 and WDS2 test passed) |
| Todd Cowan | Operator | WDS OIT, WWT1 (mandatory water course complete) |
| Connor Bailey | Operator | WDS OIT, WWT OIT, WWC 1 (mandatory water |
| | | course complete WDS1 test passed) |
| WDS - Water Dis | tribution & Supply | WWT – Wastewater Treatment |

WDS - Water Distribution & Supply WTS - Water Treatment System

WWC – Wastewater Collection

In Addition to being an operator, some operators also have responsibilities as, Water Foreman, Sewer Foreman, Water Sewer lead hand and Compliance Coordinator/QMS Rep. The future challenge facing the department will be getting all operators licensed in both water and waste water. This is going to involve a concentrated effort to provide enough hours in each field to each operator to allow for certification. Succession planning for all roles must also be considered.

The Public Works Assistant continues to play a major role in the department, completing documents and records, report preparations many of which are key to compliance and scheduling.

SUCCESSION PLANNING

- Todd taking over Darrell's position and still doing his job as lead hand

- Succession planning in the water department needs to be revisited

- Todd is working on setting up a calendar so there are no surprises and nothing is missed, this will include, but is not limited to sampling dates and due dates for reporting

- We need to look into the possibility of a College or University student Co-op program to assist with our workload during peak times

Infrastructure

An annual infrastructure review was completed Oct 2016 and a list of water main proposed work was generated as part of the 5 year plan. The list is as follows but is subject to change.

| | Elora St N (4023-4024) Complete James St (3021) Complete Queens St S (3029) On Hold Jane St (3084-3086) 3084 in 2017, 3085&6 Completed in 2016 Inkerman St (3089) 2017 Ann St S&N ((1047, 1050 1051) Complete – temporary gravel surface |
|--|---|
| | - John St N (2114) On Hold - Whites Road (4046) On Hold – 1940 watermain Nelson->Dufferin is in very bad shape |
| - Clifford | - Ann St S. (1049) |
| 2018 – Harriston | - George St S (2004-2006) 2017 - Pending on funding application - William St E (2028-2029) - Elora St N (4020) |
| - Palmerston | - James St (3020) - Lowe St (3019) - York St (3073) |
| - Clifford | - Elora St. C.L. (4018-4013) - Allan St. E. (1017) |
| 2019 – Harriston - Clifford | - Queen St S (2067) - Elora St. C.L. (4012) |
| 2020 - Palmerston | - Norman St (3103-3106) |
| 2021 – Palmerston - Harriston | - Queen St. S. (3029) from 2016 - John St N (2114) from 2016 |
| Harriston Clifford - We have ap Funding | ned, suggested in the Next 5 Year - Lawrence St (2000) - Elora St (4012-4018) – 2018 & 2019 - Allan St E (1017) – possibly 2018. plied for the Clean Water Wastewater Fund Joint Federal & Provincial 000 + Federal \$500,000 = Provincial \$250,000 for up to 10 years |

Clifford Backyard Mains (CAR 08-14)

This year in Clifford the portion of main between Allan St and John St on the West side of Elora St was abandoned. There are still multiple homes connected to the old backyard mains which are slowing the process of abandoning these sections. A review of backyard mains this fall highlighted issues with services still existing on these mains and also the creation of deadends if portions of these mains are abandoned. To avoid water quality issues these mains require routine flushing and there still the risk of breaks on private property.

- Church is fed off the back lot
- will try again in the spring
- this is not an easy job, if dead ends are created they can cause water quality issues

Backflow Prevention Program (CAR 09-14)

Wayne Metzger and Clarke Richardson have taken training and are working on the backflow program. Wayne has developed a list of customers who maybe required to have a backflow preventer. Currently the backflow prevention is covered under section 7 of the water supply bylaw which has been under review since last years management review. Until this By-Law is completed the backflow program cannot be enforced.

- This will be a Winter 2016/2017 priority

- The preliminary list includes 53 addresses for Clifford, 121 addresses for Harriston

and 91 addresses for Palmerston = 265 these will all need to be audited

- By-Law and New Standard Operating Procedures need to be written

SCADA Upgrades

The bulk of the SCADA upgrade is complete; we continue to make minor modifications to enhance the system. The Upgrades have resulted in the following improvements:

- current software that is compatible with today's operating systems
- completely redundant system
- improved tracking and reporting
- ability to customize data collection and reporting
- enhanced alarm notification
- the ability to control the system with pressure or tower level
- consistency across all stations for data collection and operation
- operator interface panels improvement
- improved compliance (2min data instead of 5min data)

The ministry of the environment was very impressed with the format of the reports, ability to receive data electronically and the fact there are multiple place collecting regulatory data.

- Still working through the little glitches

Well #2 Harriston Upgrades

Starting in November 2015 and completed July 2016 well #2 Harriston underwent considerable upgrades. There was evidence the existing turbine shaft pump was deteriorating and the well shaft itself required work and the water quality from this source was very hard and high in sulphate. So after an in-depth study of the well it was determined that the water quality could be improved by eliminating some of the water intake zones. The upgrades included:

- Removal of turbine shaft pump and structure, replaced with a 40hp submersible turbine pump.
- 225mm casing installed to depth of 39.3m, inside existing 300mm casing and the area between the two sealed.
- Water producing zones at the top and bottom of the well were sealed.

There was the risk that the capacity of the well could be reduced by these changes but by installing the new pump lower in the well allowed the permitted pumping rate to be maintained.

The improvements caused a reduction in hardness from 960mg/L to 600mg/L and sulphate decreased from 730 mg/L to 380mg/L, the ODWQS for sulphate is 500 mg/L.

It was recommended that a step test be performed on the well in five years, so this is something that should be noted for budget in 2021.

Resources Needed to Maintain QMS.

The majority of the resources required are in the form of time commitments by the Compliance Coordinator/QMS rep and the Public Works Assistant.

Budget decisions and preparations for the water dept. are the responsibility of the Public Works Director & Water Foreman.

The Water Foreman is formally involved & encouraged to participate in the decision making process involved in budgeting. Training updates are ongoing.

Water operators must continue to be provided with both practical training and training with CEU's to maintain their licenses this is an ongoing and necessary expense.

If there is a summer student available next year there is painting at the well house that is required.

Source Protection

Stacey Pennington Building Inspector/Risk Management Inspector provided the following update on the Source Water Protection program:

- The municipalities in the County of Wellington continue to implement Drinking Water Source Protection incentives through the established working group.
- We are currently updating our website to reflect the changing needs of that resource. We have further developed education and outreach materials: brochures, maps etc. that are posted on our website.
- The Town of Minto appointed Risk Management Inspectors and Officials in March of 2015 Terry Kuipers Chief Building Official is also an RMI)

- Ausable Bayfield Maitland Valley Source Protection Plan This plan was approved in January, and became effective April 1, 2015. The Saugeen, Grey Sauble, Northern Bruce Pennisula Source Protection Plan was approved with an effective date of July 1, 2016.
- Since Plan approval we have since been issuing notices on all building permits and planning applications submitted within the regulated Well Head Protection Areas.
- Staff issued 53 Section 59 notices in 2015. The majority of these were in relation to residential construction, only 8 were a result of commercial, industrial or institutional permits.
- In 2016 we have issued 45 Section 59 notices as of November 16 2016. Again, the majority of these were residential land uses, 2 institutional, 2 commercial, and 1 industrial applications.
- All applications to date that were issued the notice had no prohibition or risk management plans applicable and the application proceeded as normal.
- The Maitland Valley Conservation Authority identified 21 possible threats in our municipality. Up to date we have confirmed 16 properties with the potential to require a Risk Management Plan.
- Staff contacted several property owners via phone and mail, and conducted 22 initial site visits to date. These communications and site visits resulted in the removal of 10 properties from the Drinking water threats list. Fourteen properties require follow up visits to verify DNAPL threats based on guidance from the MOECC.
- Staff initiated Risk Management Plan Negotiations with 12 of the properties with requirements. These are all in draft form. During regular review eight properties requiring site visits were added to verify the storage and handling of DNAPLs.
- Threats verification resulting from the Saugeen Conservation Authority, the County of Wellington and the Town of Minto identifies 76 total possible threats on a total of 42 properties. All 42 property owners and tenants have been contacted. Through further threat verification we have reduced the number of possible threats to six. Five for DNAPL and one Fuel Threat. We are currently working on site visits on these six properties; We anticipate to further reduce the number of Risk Management Plans required.
- We have contacted all fourteen landowners with potential fuel oil threats; to date eleven of these property owners have confirmed they are now using natural gas for home heating. One has confirmed they have initiated the process to connect to natural gas.
- In relation to sewage systems identified as significant threats to drinking water, the conservation authorities identified 5 properties requiring inspection. Upon further investigation the Town of Minto added one additional property to the list. All of the six inspections have been completed with education and outreach was provided.

Recommendation to Purchase

A new service truck was purchased this year to be shared between the water and waste water departments. This truck came equipped with several features that will improve safety and efficiency at job sites.

The Town is currently looking at computer software to go paperless. The water and waste departments would benefit from a system capable of inventory, work orders, GIS, complaint tracking etc. we need to ensure that we keep this in mind when purchasing new software.

- Security of DWQMS documents and records is a must!! Some confidential others just need to be secure

- Document & Record Control are 1 of the 21 Elements

Accreditation Body

SAI Global was hired by the Town of Minto to be our accreditation body. We have completed two onsite audits and 4 surveillance audits since operating under our Drinking Water License and Drinking Water Permit. Most recently Nov 1, 2016 SAI carried out a Surveillance Audit.

On Site Audit [External Audit] - the accreditation body comes on site

Surveillance Audit – is a "Desktop" audit – we forward all information to SAI Global for their review

Internal Audit is completed annually by our own staff or a neighbouring municipality. Preparation time is substantial for any one of these audits.

Data Entry of Well Records

The Public Works Clerk has a template set up to do data entry. Data is taken off the SCADA files and some data is transferred off the well records. Using the SCADA data has streamlined the process compared to previous years of transferring all data from paper copies to electronic. This remains a large time commitment by Jackie and Todd as required. This information is used for the Annual and Summary reports.

Now the new SCADA is running this process should be reviewed to see if there is any way to get away from the manual data entry.

- After the 2016 Annual and Summary Reports are complete Todd and Jackie will review options of creating the same reports with data from the new SCADA system

Uninterrupted Power Supply (U.P.S.)

An annual maintenance contract with Permanent Waves is approved each year to maintain the UPS units in proper working order in the event of an emergency power outage. These systems are important when a power outage occurs as these battery backups provide communication to the controls for the well systems & transmit data to the main SCADA terminal. There were two new UPS units purchased this year to replace units that had failed one at the Young St. lift station and one for Palmerston well #3. The town water systems are equipped with three portable generators on wheels, two stationary generators, and several smaller units that can be transferred to sites as necessary. All generators are exercised on a regular schedule and the larger units are maintained by Sommers Generator annually.

Inventory Control (CAR MR 15-02)

A program is in place to track and order inventory as required. This is a cooperative effort of the Compliance Coordinator/ Lead Hand, Water Foreman and Sewer Foreman. There has been shelving added to better organize storage areas but there is still room to improve inventory tracking, this is a work in progress.

The Water Foreman & Compliance Coordinator/Lead Hand have authority under the procurement By-Law #04-4 to approve and/or make purchases. Consultation with the Public Works Director occurs for any large purchases needed to be made.

There is a need for a better system of tracking inventory and where inventory is being used.

Emergency Management

- There is a Mutual Aid agreement with the Wellington County municipalities. This is not a By-Law but an agreement.
- As of Jan. 6/15 Minto became a member of ONWARN
- Linda is holding quarterly meetings with Wellington County municipalities' water departments. The purpose is to develop critical infrastructure assurance program for water departments to ensure continuous water services before, during and after an emergency.
- An emergency exercise based on Minto's water system was held Feb 8/16 with Linda Dickson and Bridgette Francis from the County Emergency Management group. This was a great exercise and highlighted some areas that required improvement.s being organized for early in 2016 by Minto and Bridgette Francis (works for Linda).
- Jackie has completed the Scribe course through Wellington County (2016).
- Contact list in both contingency plan and SOP require review and updating

Plowing Match

This year the international plowing match ran Sept. 20-24 and was a great success. Town staff was involved with setup and tear down in many different areas. The Harriston system supplied 1075m³ of treated water via tankers to the site.

Corrective Actions Outstanding from 2015 Management Review

All Action Items from last year's review are attached at the back of this package. CAR 08-14 Water main abandonment Clifford CAR 09-14 Back flow prevention CAR MR15-02 Inventory Control

Water Operations Improvements for 2016

These have been discussed throughout this report This Management Review report covers all of the items required by the QMS Guidance Document. If you observe any errors or inaccuracies or have additional items you feel should be discussed; please contact myself in advance of the management review meeting so that any issues can be included in the agenda.

Additional Comments or Questions

Pike Lake - we have received their Annual Report

Next Meeting Fall 2017