



Operations Management International Canada Inc.

DWQMS OPERATIONAL PLAN

OIL SPRINGS WATER DISTRIBUTION SYSTEM

MDWL#: 251-101; ISSUE # 4

DWWP#: 251-201; ISSUE # 3

Oil Springs Water Distribution System No. - 260046761

This Operational Plan defines and documents the Quality Management System (QMS) for the Village of Oil Spring Water Distribution System which is operated by:

OMI - Operations Management International Canada Inc. (Jacobs)

This document sets out the policies and procedures with respect to quality management in accordance with the requirements of the Province of Ontario's **D**inking **W**ater **Q**uality **M**anagement **S**tandard 2.0 (DWQMS).

Approved and Authorized for Use – Sept 3, 2026



Chris Toulouse – OMI Project Manager
Top Management

Table of Contents

ELEMENT # 1 – QUALITY MANAGEMENT SYSTEM (QMS)	3
ELEMENT # 2 – QUALITY MANAGEMENT SYSTEM (QMS) POLICY	4
ELEMENT # 3 – COMMITMENT AND ENDORSEMENT	5
ELEMENT # 4 – QMS REPRESENTATIVE	6
ELEMENT # 5 – DOCUMENT AND RECORD CONTROL	7
ELEMENT # 6 – DRINKING WATER SYSTEM	8
ELEMENT # 7 – RISK ASSESSMENT	10
ELEMENT # 8 – RISK ASSESSMENT OUTCOMES	12
ELEMENT # 9 – ORGANIZATIONAL ROLES, RESPONSIBILITIES AND AUTHORITIES	13
ELEMENT # 10 – COMPETENCIES	15
ELEMENT # 11 – PERSONNEL COVERAGE	17
ELEMENT # 12 – COMMUNICATIONS	18
ELEMENT # 13 – ESSENTIAL SUPPLIES AND SERVICES	19
ELEMENT # 14 – REVIEW AND PROVISION OF INFRASTRUCTURE	20
ELEMENT # 15 – INFRASTRUCTURE MAINTENANCE, REHABILITATION AND RENEWAL	21
ELEMENT # 16 – SAMPLING, TESTING AND MONITORING	22
ELEMENT # 17 – MEASUREMENT AND RECORDING EQUIPMENT CALIBRATION AND MAINTENANCE	23
ELEMENT # 18 – EMERGENCY MANAGEMENT	24
ELEMENT # 19 – INTERNAL AUDITS	25
ELEMENT # 20 – MANAGEMENT REVIEW	26
ELEMENT # 21 – CONTINUAL IMPROVEMENT	27
APPENDIX “A” - QMS DOCUMENT AND RECORD CONTROL PROCEDURE	28
APPENDIX “B” – ESSENTIAL SUPPLIES & SERVICES CONTACT LIST	30
APPENDIX “C” – RISK ASSESSMENT & OUTCOMES TABLE	32

ELEMENT # 1 – QUALITY MANAGEMENT SYSTEM (QMS)

The DWQMS (Drinking Water Quality Management Standard) requires an Operating Authority to develop and document a Quality Management System (QMS) for the Drinking Water System that it operates.

An Operational Plan required by the Ministry's Director's Direction is a document or series of documents that outlines policies, processes and procedures for the overall quality management of the drinking water system. The current version of the Director's Direction is available at: <https://ero.ontario.ca> (search registry for "directors direction" or the ERO number: 025-0779)

This document will be the Quality Management System Operational Plan for The Village of Oil Springs Water Distribution System. (System Number - 260046761)

Operations Management International Canada Inc. (OMI) (Jacobs) is the Operating Authority for the Oil Springs Water Distribution System.

The Quality Management System for The Village of Oil Springs covers the transmission and distribution of potable drinking water to consumers within the Village of Oil Springs Water Distribution System. Treated potable water is purchased from the Enniskillen Water Distribution System (Number: 220004377) and enters the Oil Springs Water Distribution System from two (2) boundary metered connection points. One meter is located at 4898 Oil Springs Line, and one meter is located at 2868 Oil Heritage Road.

Top Management duties are performed by the Project Manager and in his/her absence the Lead Operator shall perform Top Management duties.



Ministry of the Environment,
Conservation and Parks

[Print Form](#)

Schedule C – Director's Directions for Operational Plans
(Subject System Description Form)
Municipal Residential Drinking Water System

Fields marked with an asterisk (*) are mandatory.

Owner of Municipal Residential Drinking Water System *

[The Village of Oil Springs](#)

Subject Systems

Name of Drinking Water System (DWS) *	Licence Number *	Name of Operating Subsystems (if applicable)	Name of Operating Authority *	DWS Number(s) *
1. Oil Springs Water Distribution System	251-101		OMI (Jacobs)	260046761

[Add Item \(+\)](#)

Contact Information for Questions Regarding the Operational Plan i

Primary Contact

Last Name *	First Name *	Middle Initial
Culnan	Cathy	
Title *	Telephone Number *	Email Address *
Operator II	519-466-4631 ext.	cathy.culnan@jacobs.com

Secondary Contact

Last Name	First Name	Middle Initial
Toulouse	Chris	
Title	Telephone Number	Email Address
Project Manager	519-466-8450 ext.	chris.toulouse@jacobs.com

ELEMENT # 2 – QUALITY MANAGEMENT SYSTEM (QMS) POLICY

OMI (Jacobs) is the Operating Authority for The Village of Oil Springs Water Distribution System and is committed to comply with all water legislative requirements & regulations, to supply clean safe drinking water that meets the consumers requirements, understands the importance of the maintenance & continual improvement of the QMS and is committed to the principals & objectives set out in the QMS Policy.

The QMS Policy is to:

- *maintain and continually improve the Quality Management System.*
- *supply clean safe drinking water to meet the consumers' requirements.*
- *comply with all applicable legislative requirements and regulations.*
- *provide effective communication between the Operating Authority personnel, the Owner and the Public*

The QMS Policy is approved by the Project Manager (Top Management) and is available on The Village of Oil Springs website at www.oilsprings.ca and posted at the Water Department.

Staff have the opportunity to review the Policy at the Operational Plan Staff Review



Date: May 12, 2026

Chris Toulouse, Project Manager
OMI Canada Inc. (Jacobs) Top Management

ELEMENT # 3 – COMMITMENT AND ENDORSEMENT

This Operational Plan has been reviewed and endorsed by the Owner and the Operating Authority's Top Management. The Owner's commitment to an effective Quality Management System is evidenced by the resources provided during implementation, required maintenance and continual improvement of the Operational Plan and the QMS that meets the requirements of the Drinking Water Quality Management Standard.

The Endorsement by the Owner and Top Management acknowledges the need for and supports the provision of sufficient resources to maintain and continually improve the QMS.

Top Management demonstrates their endorsement of the Operational Plan through reporting to the Owner on the results of the Management Review and by key signature(s) below:

Top Management's commitment to an effective QMS is evidenced by:

- *ensuring that a QMS is in place that meets the requirements of the Standard*
- *ensuring that the Operating Authority is aware of all applicable legislative and regulatory requirements*
- *communicating the QMS according to the procedure for communications*
- *determining, obtaining or providing the resources needed to maintain and continually improve the QMS*

The Owner and Top Management will endorse the Operational Plan and re-endorse when there is a major change in the plan's content or when the majority of signing parties are no longer filling positions.



Date: May 12, 2026

Owner: Village of Oil Springs



Date: May 12, 2026

Chris Toulouse; Project Manager

OMI Canada Inc. - Top Management

ELEMENT # 4 – QMS REPRESENTATIVE

Top Management appoints the role of QMS Representative (indicated in Element # 9)
The alternate QMS Representative is the Project Manager.

The commitments of the QMS Representative irrespective of other responsibilities are to:

- *administer the Quality Management System by ensuring the processes and procedures needed for the QMS are established, implemented and maintained,*
- *report to Top Management on the performance of the QMS and any need for improvement,*
- *ensure that current versions of documents required by the QMS are being used at all times,*
- *ensure that Operating Authority personnel are aware of all applicable legislative and regulatory requirements that pertain to their duties for the operation of the subject system, and*
- *promote awareness of the QMS throughout the Operating Authority.*

The QMS Representative *ensures the Operational Plan is re-endorsed by the Owner & Top Management when there is a major change in the plans content or when the majority of the signing parties are no longer filling their positions.*

To obtain the written endorsements of the Operational Plan, the QMS Rep emails and/or delivers/provides to the Owner & Top Management a copy of the current Operational Plan to review and/or discuss before endorsing.

The QMS Representative assists with development of the Operational Plan and on-going maintenance of the QMS including Operating Authority re-accreditation, auditing requirements and MDWL & DWWP renewal applications.

Additionally, the QMS Rep will organize QMS training with new staff to review & understand the contents of the Operational Plan and legislative/regulatory requirements that pertain to their duties regarding the operations of the WDS.

Designation of the DWQMS Representative

Element # 4, of the DWQMS Operational Plan describes the requirement for the designation of the DWQMS Representative. Top Management shall appoint and authorize a Quality Management System Representative

I the undersigned, shall appoint ____Cathy Culnan____ to fulfill the role of DWQMS Representative for the Oil Springs Water Distribution System

Regards,



Chris Toulouse - May 12, 2026
Top Management – Project Manager

ELEMENT # 5 – DOCUMENT AND RECORD CONTROL

All records and/or documents required to demonstrate compliance and conformance with the legislation, regulations and QMS shall be maintained as per the SDWA; O. Reg 170/03 and also O. Reg 128/04.

The documents and records received are reviewed, acted upon if needed, and retained as per Appendix A.

Under the Directors Direction, Section 4.0 (under the authority of subsection 15 (1) of the SDWA) Operational Plans that are the subject of an audit by an auditor for the accrediting body shall be retained for ten (10) years by the Owner and Accredited Operating Authority for the subject system to which the Operational Plans apply.

The Municipal Drinking Water License specifies that records related to the License and/or the Drinking Water Works Permit are retained for a minimum of five (5) years, unless otherwise specified – such as for MECP Form 1's, Form 2's and Form 3's- which are to be retained for a minimum of ten (10) years.

Relevant MECP Forms can be retrieved from the Ministry's "Central Forms Repository" at:
<https://forms.mgcs.gov.on.ca/en>

Refer to: Appendix "A" – QMS Documents & Records Control

ELEMENT # 6 – DRINKING WATER SYSTEM

The Village of Oil Springs is the Owner of the Water Distribution System and Operations Management International Canada Inc. (OMI) (Jacobs) is the Operating Authority.

The Oil Springs Water Distribution System is a Class I Distribution System and does not include any treatment, storage or pumping components. The Village purchases potable drinking water from the Township of Enniskillen and is supplied from the Enniskillen Water Distribution System via two-meter chambers, located on municipal boundaries. Enniskillen Township Public Works is the Operating Authority for the Enniskillen WDS. The Village of Oil Springs monitors water consumption and loss. On a weekly basis the Operating Authority manually monitors the Oil Springs WDSs pressure at the Municipal office (in basement) and documents in facility logbook.

The Township of Enniskillen operates a water reservoir and pumping station north of the Village boundary at 2868 Oil Heritage Road. This facility provides pressurized potable water and fire flow during fire emergencies to the Oil Springs WDS. Re-chlorination occurs at the Enniskillen Water Reservoir when water enters the Reservoir. Water is replenished throughout the night (11:00 pm to 05:00 am)

Enniskillen Township WDS sampling protocol follows O. Reg 170/03

The Town of Petrolia's WTP (System Number-220002903) provides potable water to the Township of Enniskillen and is located at 2701 Old Lakeshore Rd, Brights Grove. Their system includes a reservoir & booster station at 3517 Confederation Line in Plympton-Wyoming and an elevated water tank at 345 Centre Street in Petrolia. Ontario Clean Water Agency (OCWA) is the Operating Authority for the Petrolia Water System.

There are two (2) in-line boundary emergency isolation valves that connect the Enniskillen WDS to the Oil Springs WDS - 2868 Oil Heritage Road (100 m South of the Reservoir on the East side) & at 4898 Oil Springs Line) both locations are marked & valve caps are painted blue to easily identify location.

At the Township of Enniskillen Water Reservoir there are in-line pumps which are used to increase water pressure for pumping water into the water distribution system and for fire flow. The total storage capacity of the water reservoir is 1360 m³ (300,000 imp. gallons). The pumps are capable of supplying 4.55 m³/minute (1,000 imp. gallons/minute) of fire flow to the Oil Springs Water Distribution System.

The Village's water purchase agreement with the Township of Enniskillen limits the amount of water that can be used in the water distribution system. Water supply to large users may be restricted to off peak times. Daily peaks occur at approximately 7:00 am and 5:00 pm.

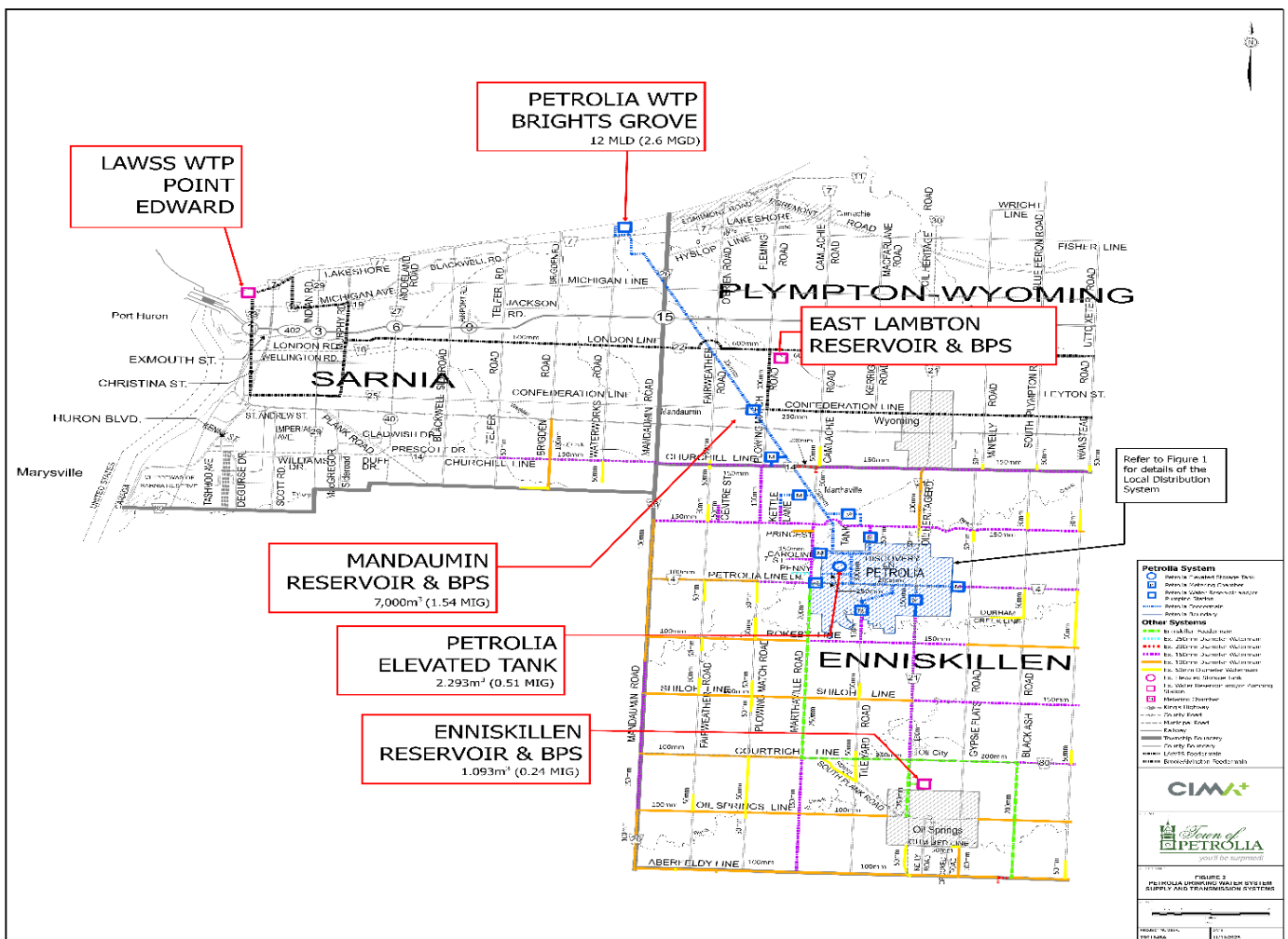
The main challenge was the cast iron watermain pipes within the system. These pipes were installed in the late 1940's and were a source of corrosion (rusty water) They were also prone to leaks during the winter. Also, there were undersized watermains supplying water on side streets

in the east end of the Village. The Village has since completed a program of replacing these watermain in 2007, 2009, 2010, 2011.

To maintain chlorine disinfection residuals in the Distribution system, routine flushing is conducted on the fire hydrants and dead end blow offs which refreshes the water and improves chlorine residual. Flushing also enhances flow by removing accumulated sediment & other impurities that can build-up in pipes. The Operating Authority has an SOP available at the Water Department to check chlorine residuals and act as required. (SOP # 4)

Components of the distribution system are; water sample stations, fire hydrants, blow offs at dead ends, watermain isolation valves, water meters and residential water services (curb stops). Sample Station # 1 is located at 2423 Kelly Road (behind museum in the trees) and Sample Station # 2 is located at 4898 Oil Springs Line. Fire Flow testing was conducted on all hydrants in 2023/2024 with a report submitted.

SYSTEM SCHEMATIC:



ELEMENT # 7 – RISK ASSESSMENT

Top Management, QMS Representative and the Operating Authority's Operators make up the Team who identifies potential hazards and hazardous events that could affect the drinking water system, the control measures to address those hazards, the Critical Control Points (CCPs) and Critical Control Limits (CCLs). Also the associated methods of monitoring, recording and responding to the CCL deviations and reporting on them.

Control Measure: any procedure, process, device, or means of eliminating, preventing or reducing the risk of a hazardous event.

Critical Control Point (CCP): an essential step or point in the subject system at which control procedures can be applied by the OA to prevent or eliminate a drinking water health hazard or reduce it to an acceptable level.

Critical Control Limit (CCL): the point at which a critical control point response procedure is initiated. Based on regulatory requirements, process monitoring, after-hours response time and historical performance.

The Risk Assessment Team assembles and conducts a risk assessment & outcomes review at least once every Calendar Year to verify the current information is correct and the validity of the assumptions used in the risk assessment. Additional risks can be identified and/or considered during QMS meetings, audits, emergency testing and throughout daily operational activities.

During the Risk Assessment the Team:

- *considers the potential hazardous events and associated hazards, as identified in the MECP document "Potential Hazardous Events for Municipal Residential Drinking Water Systems" - dated April/2022 (as amended from time to time) and available at <https://ero.ontario.ca/notice/019-4855>*
- *identifies additional potential hazardous events and their associated hazards*
- *assesses the risks associated with the occurrence of hazardous events*
- *ranks the hazardous events according to the associated risks*
- *identifies the control measures to address the potential hazards & hazardous events*
- *identifies the Critical Control Points*
- *identifies a method to verify, at least once every calendar year, the currency of the information and the validity of the assumptions used in the risk assessment*
- *ensures that the risks are assessed at least once every thirty-six months*
- *considers the reliability and redundancy of the equipment*
- *considers applicable BMPs as published by the MECP in the document "Best Management Practices" – dated October/2025 and available at: <https://www.ontario.ca/page/drinking-water-system-best-management-practices>*

The risk criteria for hazardous events and hazards are evaluated on the basis of likelihood, severity and detectability; the combined total of the three criteria categories gives a ratings value number (see table below)

The rating values are then added together to give an overall risk factor number correlating with the identified hazard. All hazards or hazardous events with an overall risk factor number greater than seven (7) are associated with a CCP & CCL.

The reliability and redundancy of system equipment is considered during the ratings process (historical upgrades and repairs are reviewed during the once every calendar year Infrastructure Tour & Review)

Public Works keeps an abundant supply of new large spare parts at the Public Works Garage (hydrants, valves, piping) and smaller parts in the Community Hall basement (curb-stops, meters, clamps) Parts that have been removed and/or replaced are kept by PWs and recycled (scrap)

The Risk Assessment Team conducts a full risk re-assessment & outcomes once every thirty-six months to ensure that the information and assumptions used in this process for all procedures, hazardous events, hazards, ratings, ratings values and risk factor numbers that are documented in the Outcomes Table remain up-to-date and valid.

The Risk Assessment Team will ensure the risks, ratings values, overall risk factor numbers and outcomes are discussed, assessed & agreed upon.

The risk criteria and the associated rating values are summarized in the table below:

Column A - Likelihood	Column B - Severity	Column C -Detectability	Column D - Rating Value
<u>Rare</u> : may occur in exceptional circumstances and has not occurred in the past	<u>Insignificant</u> : impact, little public exposure, little or no health risk	<u>Very Detectable</u> : easy to detect, visual	1
<u>Unlikely</u> : could occur at some time, historically has occurred less than once every 5-10 yrs.	<u>Minor</u> : limited exposure, minor health risk	<u>Moderately Detectable</u> : increased flow rates	2
<u>Possible</u> : Has occurred or may occur once or more per year	<u>Moderate</u> : minor public exposure, minor health risk	<u>Normally Detectable</u> : visually detectable on rounds or through regular maintenance	3
<u>Likely</u> : has occurred or may occur on a monthly basis	<u>Major</u> : large population at risk	<u>Poorly Detectable</u> : visually detectable, but not inspected on a regular basis, lab tests conducted quarterly or longer, not normally detected before a problem becomes evident	4
<u>Very likely</u> : one or more occurrences on a monthly or more frequent basis	<u>Catastrophic</u> : major impact for large population, complete failure of systems.	<u>Undetectable</u> : cannot detect until problem is evident	5

The agreed upon rating value for each hazard is documented in the corresponding column in Appendix "C"

Refer to: Appendix "C" - Risk Assessment Outcomes Table

ELEMENT # 8 – RISK ASSESSMENT OUTCOMES

The outcome of the risk assessment process is summarized in the risk assessment outcomes table that documents the:

- *identified potential hazardous events and associated hazards,*
- *assessed risks associated with the occurrence of hazardous events,*
- *ranked hazardous events,*
- *identified control measures to address potential hazard and hazardous events,*
- *identified critical control points (CCPs) and their respective critical control limits (CCLs)*
- *procedures and/or processes to monitor the CCLs,*
- *procedures for responding to deviations from CCLs, and*
- *procedures for reporting and recording deviations from the CCLs.*

SOPs and Procedures used to monitor CCPs, CCLs, respond to deviations, and for reporting & recording deviations are available at the Water Department and are identified in the Outcomes Table in Appendix “C”- under “Reference Procedure”

Oil Springs Water Works Bylaw # 1035 of 2025; section 2 (2.6) and section 6 (6.1)(1) documents the restricted use and access to Fire Hydrants.

Oil Springs Water Works Bylaw # 1035 of 2025; section 9 (9.2.2) and Schedule 8 documents the Backflow Prevention Device requirement.

**Refer to: Appendix “C” - Risk Assessment Outcomes Table
Oil Springs Water Works Bylaw # 1035 of 2025**

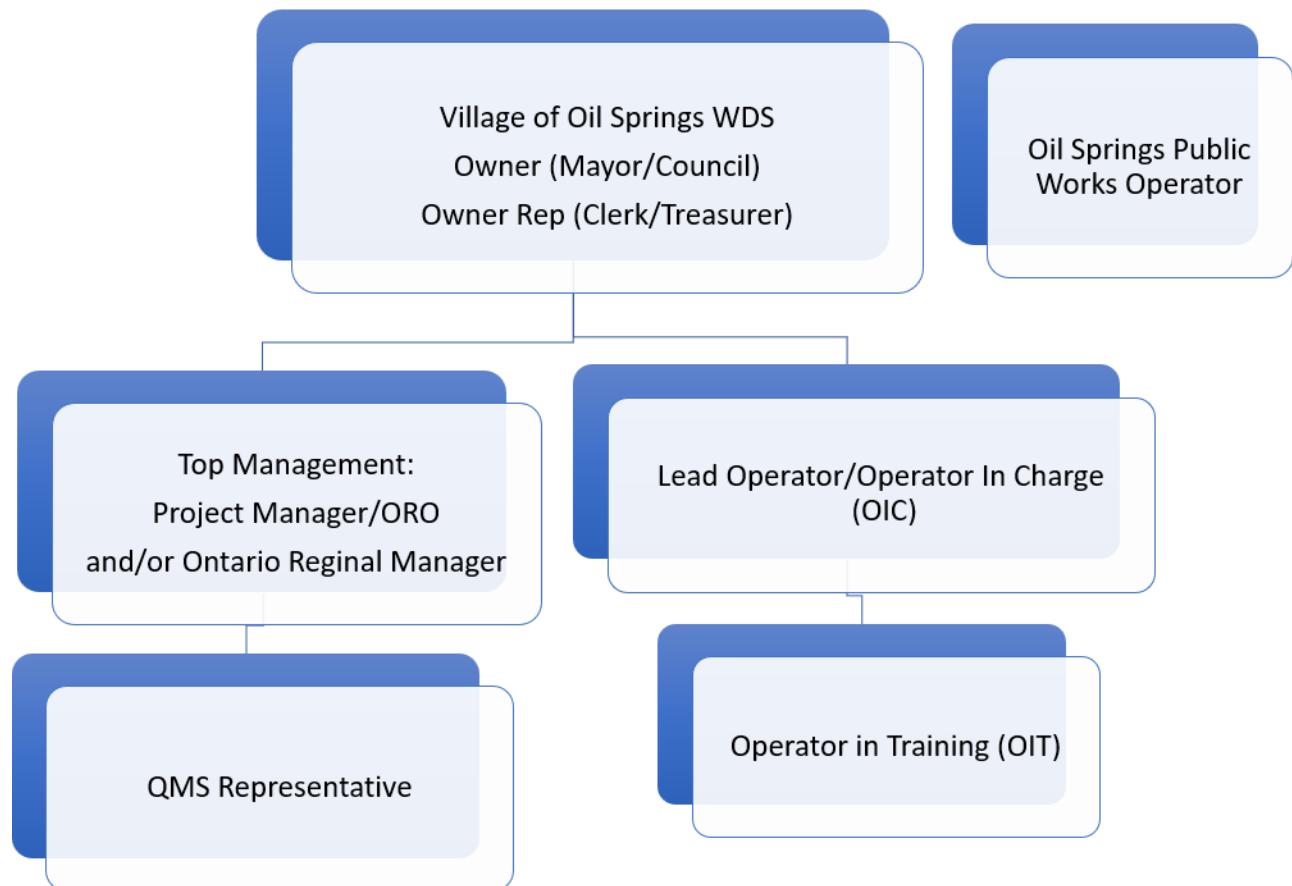
ELEMENT # 9 – ORGANIZATIONAL ROLES, RESPONSIBILITIES AND AUTHORITIES

Top Management shall keep the organizational structure, respective roles, job titles, responsibilities and authorities current and shall communicate & discuss the information and any changes with the Owner/Owner Rep during the Management Review.

An evaluation/review of the operational structure, respective roles, job titles, responsibilities and authorities takes place once every Calendar Year during the Operational Plan review with staff.

The Project Manager fulfills the role of ORO with a backup ORO designation. A notice is provided to the Municipality & displayed at the Municipal Office for the Public to view.

Operations Organization Chart:



The Roles, Responsibilities and Authorities related to the provision of safe, potable drinking water are described in the table below:

Role/Job Title	Responsibilities	Authorities
Mayor & Council (Owner) Clerk/Treasurer (Owner Representative)	- Ultimate responsibility for the provision of safe drinking water - Endorses the Operational Plan - Provides resources for the maintenance and continual improvement of the QMS - Reviews OA's capital plan recommendations and sets budgets as appropriate - Participating in Management Review	- Financial and administrative authority related to the distribution of safe drinking water - Recommend and approve budget items, rates and bylaws pertaining to water - Communicate system needs with Operating Authority
Operating Authority Ontario Regional Manager (Top Management)	- Corporate oversight for OMI (Jacobs) operations and contracts - Demonstrated expertise in the principles of supervision and training; principles of budget preparation and expenditure control; and safe work practices	- Provides resources required for operation of the drinking water system according to the contract - Ensure operations are performed as per the contract and by regulatory requirements
Operating Authority Project Manager/ORO (Top Management)	- Communications with Regional Manager, Owner, Owner Rep, Operators, Engineers, MECP, and repair contractors - Participates in Management Review (Chair) - Oversee the day-to-day operations of the DWS - Oversee adverse water quality incident responses / reporting - Appointing the QMS Representative - Recommends and/or implement improvements or changes according to the operating contract - Communications during emergencies	- Identify / Oversee staff training - Schedules work assignment for operations staff - Recommend changes to the QMS - Ensure personnel are aware of the applicable legislative and regulatory requirements that pertain to their duties for the operation of the subject system
Operating Authority Operators (Lead / OIC)	- Conducts operational checks / compliance sampling - Adjust, monitor, evaluates system processes, flows, pressure and/or quality of the drinking water. - Responds to repairs, complaints, AWQI, alarms - Provides PM duties in the absence of the PM - Assist with preparing reports - Order parts if/when required	- Reports and acts upon non-conformances - Assists in OIT training - OIT's operate under the direction of the OIC or ORO - Recommend changes to the QMS
Operating Authority QMS Representative	- Administer the QMS by ensuring that processes needed for the QMS are established and maintained - Communicates with Top Management, Owner, Owner Rep, MECP, Essential Suppliers & Operators regarding the QMS - Participates in Management reviews - Reports to Top Management on the performance of the QMS and any need for improvement (through internal audits and management reviews, QMS meetings, emails) - Tracks Operator Water Certification expiry	- Promotes awareness of the QMS throughout the OA - Ensure the OA is accredited and administers the re-accreditation process - Updates QMS and documents - Ensure current versions of the QMS are being used at all times.
Operating Authority OIT (Operator in Training)	- Perform day to day operations and maintenance under the direction of the OIC and/or ORO	- Monitor process and equipment - Recommend changes to the QMS
Oil Springs Public Works Operator	- Water shut off / water turn on - Locates - Communicates with Operating Authority Operators	- Also orders repair parts - Also orders water meters

ELEMENT # 10 – COMPETENCIES

Competency is the demonstrated ability of an employee to apply their knowledge, skills, understanding, behaviors and techniques when performing their duties & responsibilities.

The following table illustrates the competencies required by personnel whose duties **directly** affect drinking water quality:

Function	Required Competencies	Desired Competencies
Operating Authority Ontario Regional Manager	- Knowledge of the principles and practices of water distribution - Demonstrated expertise in the principles of supervision and training; principles of budget preparation and expenditure control; - Valid Driver's License	- Leadership Training - DWQMS Provincial Workshop training - WHMIS - Internal Audit Training
Operating Authority Project Manager/ORO	- Class I Water Distribution Certification - Knowledge of the principles and practices of water distribution - Knowledge of legislative requirements and DWQMS - Knowledge in the principles of supervision, training and safe work practices - Knowledge of principals and methods of bacteriological analysis/sampling - 3-year Mandatory Certificate renewal course - Valid Driver's License	- Class II WD Certification - Leadership Training - DWQMS Provincial Workshop training - WHMIS - Internal Audit Training
Operating Authority Operators (Lead & OIC)	- Class I Water Distribution Certification - O. Reg 128 duties - Knowledge of the principles and practices of water distribution - Knowledge of principles and methods of bacteriological analysis/sampling - Knowledge in the principles of supervision, training and safe work practices - Knowledge of DWQMS - 3-year Mandatory Certificate renewal course - Valid Driver's License	- Class II WD Certification - Leadership Training - Knowledge in the principles of supervision and training - Confined Space / WAH Training - WHMIS
Operating Authority Operators (OIT) (operator in training)	- OIT Certification - Knowledge of the principles and practices of water distribution - Valid Driver's License	- Class 1 WD Certification - First Aid & CPR Training - Confined Space / WAH Training - WHMIS - 3-year Mandatory Certificate renewal course - Knowledge of DWQMS

All personnel performing duties **directly** affecting drinking water quality must have adequate training and be competent in their positions. Activities to develop and/or maintain competencies include the following:

- *certified operators are responsible for completing the annual number of training hours required as per applicable regulations. Reference to the table below taken from O. Reg. 128/04; "Certification of Drinking Water System Operators and Water Quality Analysts" s.29 regarding the minimum annual training hours for operators, based on the highest class of system they work in*
- *training consists of both continuing education and on the job training which is delivered using a combination of methods. (e.g. internal classroom courses and custom courses/sessions)*
- *certified operators are required to complete a review of the QMS Operational Plan once every calendar year.*
- *certified operators are required complete emergency testing & training annually to ensure personnel are aware of the relevance of their duties and how they affect safe drinking water.*
- *individual employees' training records are maintained & tracked by the Operators on the Operating Authority's SharePoint site.*
- *QMS Rep tracks the Operator's water certification expiry & sends emails as a reminder to personnel throughout the year.*
- *certified operators are also required to complete the 3-year mandatory drinking water course to the ministry requirements for license renewal.*
- *the Project Manager takes reasonable steps to ensure that every Operator has the opportunity to attend meaningful training to meet the requirements of their certification.*

TABLE
ANNUAL TRAINING FOR OPERATORS

Type and Class of Subsystem Where the Operator is Employed	Training Requirements	Minimum Total Hours
Limited Groundwater or Limited Surface Water	7 hours or more of continuing education, with the remaining hours to at least the minimum total as on-the-job practical training	20
Class I Water Treatment or Class I Distribution or Class I Distribution and Supply	7 hours or more of continuing education, with the remaining hours to at least the minimum total as on-the-job practical training	30
Class II Water Treatment or Class II Distribution or Class II Distribution and Supply	12 hours or more of continuing education, with the remaining hours to at least the minimum total as on-the-job practical training	35
Class III Water Treatment or Class III Distribution or Class III Distribution and Supply	14 hours or more of continuing education, with the remaining hours to at least the minimum total as on-the-job practical training	40
Class IV Water Treatment or Class IV Distribution or Class IV Distribution and Supply	14 hours or more of continuing education, with the remaining hours to at least the minimum total as on-the-job practical training	50

O. Reg. 128/04, s. 29, Table.

SDWA Part III- General Requirements – Operators Certificate

12 (1) no person shall operate a municipal drinking water system or a regulated non-municipal drinking water system unless the person holds a valid operator's certificate issued in accordance with the regulations. 2002, c. 32, s. 11 (1).

ELEMENT # 11 – PERSONNEL COVERAGE

The Water Department is staffed Monday to Friday 7:00 am to 3:30 pm (5 days a week)

The Overall Responsible Operator (ORO) is tracked through the facility logbook with the name being displayed in the corresponding section at the top of page. All activities are documented in the facility logbook.

The 24/7 personal coverage (weekday after hours, weekends, statutory holidays, emergencies) ensures that sufficient and competent personnel are available for duties that directly affect drinking water quality. The table below demonstrates how after hour emergencies are conducted. The 24/7 answering service dials directly to the on-call cell phone which is forwarded to the on-call OA's staff member.

OIT's (operators-in-training) directed by the ORO or OIC can work on their own with an ORO being readily available by phone. Employees not certified cannot make any operational changes to the system. Sub-contractors (not performing operational duties) if required are used at the discretion of the ORO or OIC.

Competent OA's personnel can be utilized from nearby projects in times of potential staff shortages (e.g. pandemic or labor disruptions) peak holiday season and during emergencies.

Regular Hours	After Hours
The Public will call the Village of Oil Springs Municipal Office: 519-834-2939	The Public will call the Village of Oil Springs Municipal Office: 519-834-2939and follow message prompts for after hours contact information, directing the public to call: 519-339-8106 OR The after-hours water/sewer/emergencies contact information is available on the Municipal website www.oilsprings.ca under "contact us" and the website also displays OMI/Jacobs after hours contact number. 1-888-399-1643
Public Works staff will contact the Operating Authority at: 1-888-399-1643 The call will be directed to the on-duty Operator and necessary repairs are made	On-call Operator receives call either from Oil Springs Public Works or the after-hours service. The Operator assess information, provides direction & necessary repairs are made.

ELEMENT # 12 – COMMUNICATIONS

The QMS Representative shall ensure the Owner/Owner Representative & Top Management is provided with a current copy of the Operational Plan and communicate with Top Management when required any updates and relevant aspects of the QMS.

Top Management shall keep the Owner/Owner Representative informed of the adequacy of infrastructure requirements, repairs, the outcome of Management reviews and other issues about the QMS during the once every Calendar Year Infrastructure Tour & Review. Any updates/requirements are provided through regular reports to the Owner/Owner Representative.

Top Management delegates the QMS Rep to communicate and/or contact the Owner/Owner Rep, Essential Suppliers, OA Personnel, Ministry Representatives & Consumers when needed regarding:

- *providing the Owner / Owner Rep and Top Management and OA Personnel with a current copy of the Operational Plan*
- *communications with Owner / Owner Rep & keeping the Owner /Owner Rep informed of any changes to the QMS, the adequacy of infrastructure requirements, the outcome of management reviews and other issues about the QMS.*
- *informing the Operating Authority personnel of any changes or updates through QMS meetings and reviews.*
- *informing the Operating Authority personnel of upcoming training opportunities and certification requirements.*
- *communications with any External Service Providers and/or Essential Suppliers*
- *communications with MECP and/or MOH when required /necessary*
- *communications with consumers (complaints, water meter exchanges)*

The Operating Authority submits a monthly report to the Owner/Owner Rep which documents the system's lab analysis results and summarizes the repairs/maintenance to the Drinking Water System.

Essential suppliers that are identified by the Operating Authority or Owner/Owner Rep receive communications about products or services' quality, quantity, timeframes, certification or accreditation requirements through the procurement, purchase order process and/or emails.

Consumers have access to the DWQMS Operational Plan and the QMS Policy through the Municipal website www.oilsprings.ca (under: "municipal office"—"finance"—"water & sewer")

All complaints received from the consumer are reported to the Owner Representative and the Operating Authority will take the necessary action (s) to address the issue.

Staff suggestions/ideas/OFIs/BMPs that are proposed during QMS reviews/meetings are discussed / agreed upon and implemented if feasible.

The current version of the Operational Plan and SOPs are available for review, by staff, at the Water Department.

ELEMENT # 13 – ESSENTIAL SUPPLIES AND SERVICES

The Village purchases potable drinking water from the Township of Enniskillen and is supplied from the Enniskillen Water Distribution System.

Where applicable, supplies must meet or be equal to AWWA specifications. The Oil Springs Public Works Department orders & stocks extra supplies for repair – pipes, clamps, water meters, water services (curb stops). Operating Authority Operator also has authorization to order parts when/if necessary.

Chemicals purchased for use in the drinking water process (disinfecting parts) must meet AWWA Standards and be certified ANSI/NSF. Ordered supplies are verified/compared against the order requisition/packing slip when received. ANSI/NSF parts/supplies certifications are available at the Water Department.

Appendix “B” contains a contact list of suppliers, agencies and contractors that has been developed. The Supplier’s/Agencies which are deemed to be “Essential” are identified in red font with a single “E” proceeding the supplier/agency. The remaining suppliers/agencies are considered non-essential. This list is reviewed once every Calendar Year with staff during the Emergency test & review, to ensure that it is current and up-to-date.

Contractors are selected based on their qualifications and ability to meet the facility’s needs without compromising operational performance or compliance with applicable legislation and regulations. Operating Authority attends repairs to ensure measures are taken to protect the water supply against backflow / back-siphoning using air gap measures or the installation of a backflow protection device. If necessary, appropriate control measures are implemented while contracted work is being carried out and communicated to all relevant parties minimizing the risk to the integrity of the drinking water system and the environment.

Contracted personnel including suppliers may be requested or required to participate in additional relevant training/orientation activities to confirm conformance to requirements.

All third-party drinking water analysis services are provided by accredited and licensed laboratories.

Refer to: Appendix “B” - Essential Supplies & Services Contact List

ELEMENT # 14 – REVIEW AND PROVISION OF INFRASTRUCTURE

Owner/Owner Representative, Top Management and Operators will once every Calendar Year, tour the facilities and review the inventory to determine that the proper infrastructure is in place to operate and maintain the subject system, in addition, considers the current outcomes of the Risk Assessment (Appendix “C”) to ensure the adequacy of the infrastructure that is necessary to operate, minimize and/or eliminate risks and continually maintain the system.

On-site evaluations for repairs and replacement implementation timelines are considered to determine the suitability of and need of replacement parts and future repairs; therefore ensuring there is adequate infrastructure available to operate/maintain the system and reduce the likelihood or impact of a hazard or hazardous event occurring.

The Owner/Owner Representative shall receive a copy of the Infrastructure Tour & Review meeting minutes.

The results of the Infrastructure review will be discussed during the once every Calendar Year Management review which will include any Capital Plan proposals. This ensures that the appropriate infrastructure needs are added to the Oil Springs Capital Plan and that suitable funding/resources are available to maintain and continually improve the subject system.

Refer to: Appendix “C” - Risk Assessment Outcomes Table

ELEMENT # 15 – INFRASTRUCTURE MAINTENANCE, REHABILITATION AND RENEWAL

Planned Maintenance: activities include inspection/maintenance and regular flushing of distribution hydrants & dead-end lines to maintain a free chlorine residual, refresh the water and remove impurities/sediment to increase flow ensuring the water provided to the consumers is safe & appealing/pleasing; both aesthetically and taste. An annual program that includes exercising of the distribution system's watermain and hydrant isolation valves to verify proper functioning during an emergency. Records of these activities will be kept at the Water Department. Notice of activities which may affect consumers are posted on the Municipal website & displayed at the Municipal office (e.g.- hydrant flushing). The maintenance program is reviewed with Staff during the annual Infrastructure Tour & Review where the Operators may offer input regarding the effectiveness of the program.

Planned Maintenance Program:

- *Fire Hydrants are flushed 2X's per year (spring & fall) with an overall condition inspection being conducted simultaneously (ports, ports gaskets, operating nut, paint) and a report submitted. During the "fall" flushing hydrants are pumped out to prevent from freezing. Inoperable fire hydrants are bagged Out-of-Service & necessary repairs are completed in a timely manner.*
- *Watermain Isolation valves are exercised annually with an overall condition inspection being conducted simultaneously (crooked stem, stiff when turning, cracked cap) and a report submitted. Inoperable watermain valves are documented on report, submitted to the Municipality and scheduled to be repaired in a timely manner.*
- *Hydrant Isolation valves are exercised annually to ensure operations should an emergency arise that requires the isolation of the hydrant.*
- *Weekly Inspections & Operations of the sample stations are conducted (flow, drainage, tap operations, checking for leaks) while the microbiological sample and/or chlorine residual is being collected. During colder months sample stations are pumped out to prevent freezing.*

Unplanned Maintenance: activities may include emergency watermain breaks, emergency shut off's (leaks or frozen lines) and is conducted as required under the direction of the ORO/OIC. All maintenance is completed within government regulations and AWWA standards.

OA's staff update the Owner Rep and/or Oil Springs Public Works Dept. when scheduling and performing repairs to the WDS to keep them informed. Operators notify residents in the affected area of an emergency shut off with a hand delivered notice directly to the door.

Operating Authority provides monthly operating reports to the Owner Representative which summarizes the repairs and maintenance of the drinking water system.

At least once every Calendar Year during the Infrastructure Tour & Review, the long term forecast of major infrastructure maintenance, rehabilitation, renewal activities & future recommendations from the OA will be reviewed with the Owner/Owner Representative to ensure adequate Capital Plan funding is available and all parties have an opportunity to provide input.

ELEMENT # 16 – SAMPLING, TESTING AND MONITORING

Sterile sample bottles are received from the laboratory with qualified Operators collecting the regulated samples as per Reg 170/03.

Relevant sampling, testing, and monitoring is conducted upstream of the Oil Springs Water Distribution System by the Enniskillen Water Distribution System, the Petrolia Water Distribution System and the Petrolia Water Treatment Plant. They ensure that the water supplied meets the Ontario Drinking Water Quality Standards (ODWQS) and has a minimum chlorine residual of 0.20 mg/l. The Petrolia WTP has online chlorine residual analyzers with 24/7 alarm monitoring capabilities, which monitor the treated water leaving the facility. Enniskillen Township injects chlorine into the system and performs chlorine analysis at the Reservoir as per O. Reg 170/03.

To demonstrate the OA's compliance with regulated sampling, testing and monitoring requirements of O. Reg 170/03; the sampling schedule is as follows:

- a) *two (2) water samples are collected in various locations throughout the Oil Springs Water Distribution system on a weekly basis and analyzed for E. coli, and Total Coliform at the accredited Laboratory (total eight (8) per month)*
- b) *two (2) water samples are collected in various locations throughout the Oil Springs Water Distribution system on a monthly basis and analyzed for HPC (Heterotrophic Plate Count) at the accredited Laboratory*
- c) *one (1) water sample is collected quarterly from Hydrant # 34 (this is closest to chlorine injection point) and analyzed for HAA's (Haloacetic Acids) at the accredited Laboratory*
- d) *one (1) alternating water sample is collected quarterly from Sample Station #1 or from Hydrant # 38) and analyzed for THM's (Trihalomethanes) at the accredited Laboratory (most challenging for chlorine residual & both are equally the furthest point in system)*
- e) *lead analysis is completed as required by Reg 170/03 – Oil Springs is on a Reduced Lead Sampling Schedule*

The chlorine residuals (7 per week) are also checked manually by the operator at these locations simultaneously when the microbiological samples are collected. The laboratory will notify the Operating Authority immediately, orally, of any adverse readings. Reference SOPs are available at the Water Department.

The Operating Authority provides a monthly & annual report to the Owner Representative which documents monitoring requirements, sampling & testing analysis results including any adverse incidents. Sample analysis results are directly received from the laboratory by the Owner Representative and Top Management. Sample testing and monitoring results are accessible to the Public on the Town's website – in the annual report. www.oilsprings.ca

The Oil Springs Water Distribution's water pressure is manually monitored weekly by the Operating Authority's Operators at the Municipal Office and documented in facility logbook.

Results of analysis from the laboratory are entered onto secured data programs by the accredited laboratory. The data programs are the DWIS (Drinking Water Information System) for MECP (Ministry of the Environment, Conservation & Parks) and the LRMA (Laboratory Results Management Application) for MOHLTC (Ministry of Health & Long-Term Care)

ELEMENT # 17 – MEASUREMENT AND RECORDING EQUIPMENT CALIBRATION, VERIFICATION AND MAINTENANCE

All equipment calibrations & operational verifications are performed by qualified personnel.

Accuracy of the measurement & recording devices are essential in providing quality drinking water to the consumer. The Operating Authority conducts a monthly performance verification of the DPD Pocket Colourimeter (s) (used to analyze chlorine residual) according to the manufacturers' procedure and recorded. The corresponding SOP # 3 is available at the Water Department for reference.

All standards and reagents that are utilized during calibrations and/or verification activities are confirmed before use to ensure they have not expired. Any expired standards and/or reagents are properly disposed of and replaced with new as applicable.

Any device which does not meet the specified performance requirements must be removed from service and labeled "Out-Of-Service" until repaired, replaced or successfully calibrated.

The two (2) meter chambers which record the volume of water purchased from Enniskillen are calibrated through the Township of Enniskillen and the results provided to the Owner Representative and Operating Authority.

Operating Authority contracts a third-party to perform an annual calibration of the DPD Pocket Colourimeter (s)

DPD Pocket Colourimeter # 1 – SN: 25060B000801

DPD Pocket Colourimeter # 2 – SN: 24030B001472

Refer to: SOP # 3 - Performance Verification with DPD Pocket Colourimeter

ELEMENT # 18 – EMERGENCY MANAGEMENT

An Emergency is a potential situation or service interruption that may result in the loss of the ability to maintain an adequate supply of safe drinking water to the Oil Springs consumers.

Some examples of potential emergency situations/service interruptions would consist of:

- *adverse water quality incident / threshold exceedances*
- *community complaints (taste/odour/colour, multiple complaints for identical issue)*
- *water main and service line breaks*
- *interruptions in pressure / loss of pressure*
- *back siphoning / loss of water supply / contamination*
- *Enniskillen Reservoir off-line (out-of-service) (water provider)*

The Risk Assessment Outcomes Table for the Water Distribution System, contained in the QMS Operational Plan (Appendix “C”) can be referenced for emergency procedures and corresponding SOPs/Procedures for response & emergency recovery are available at the Water Department. Staff notifies the ORO during an emergency. The ORO/Top Management notifies the Owner/Owner Representative.

The Village of Oil Springs has a Municipal Emergency Plan which documents their roles and responsibilities during an emergency and available on the Municipal website www.oilsprings.ca The Operating Authority has an Emergency Plan that documents procedures, emergency contacts & links to current MECP Adverse reporting forms.

A list of Emergency Contacts and Essential Supplies & Services are included in the Operational Plan (Appendix “B”) The list is updated & kept current by the QMS Rep.

Operating Authority conducts the required, once every Calendar Year on-site Emergency response testing and training “mock” exercise with Operators. During the exercise participants verify that the processes & procedures which are put in place for preparing, reacting & responding to emergencies are current and accurate. (processes, procedures & SOPs can be reviewed/discussed/updated to determine if preventative actions may be necessary) Meeting minutes are on record at the Water Department for review.

If there is a water problem/complaint after hours, the resident will call the Municipal Office listed on the Municipal web-site (under: “living here” – “emergency management”) or (“municipal office” – “finance” – “water & sewer”) (phone number also posted on Municipal Office door) A message can be left, or directions are available to contact staff after hours. The call will be directed to the OA’s on-call Operator and the problem investigated. (as per Element # 11)

Project Manager/ORO shall notify Owner/Owner Rep regarding boil water advisories and any public emergencies.

Refer to: OMI (Jacobs) Oil Springs WDS Emergency Plan
Appendix “C” - Risk Assessment Outcomes Table
Appendix “B” - Essential Supplies and Services Contact List

ELEMENT # 19 – INTERNAL AUDITS

Internal Audits are conducted to ensure that the QMS conforms to the DWQMS, operates effectively & efficiently. Also, Internal Audits are conducted to identify any non-conformances with the QMS and any Opportunities for Improvement that could be incorporated into the QMS.

The Auditor may observe / engage in activities as necessary to ensure that the status and contents of the audited elements for the QMS has been effectively covered which may include:

- *reviewing & discussing documents and/or records with Staff*
- *evaluating Internal/External audits*
- *reviewing QMS meetings*
- *reviewing maintenance reports/documents (hydrant flushing, valve exercising reports)*
- *reviewing Action Tracking Register spreadsheets (BMP's, OFI's, Action Items, CAR's, Revisions)*
- *reviewing the MECP Annual Inspection report*
- *assessing Community Complaints*
- *assessing record keeping methods (logbooks, SharePoint, Water Department)*
- *reviewing BMPs published by the MECP*

Audit Procedure:

- *the audit shall be conducted by personnel with adequate skills, training and/or experience. Auditors must have successfully completed the DWQMS internal audit training. The methodology taught in Walkerton Clean Water Centre's Internal Auditor course for the DWQMS is followed.*
- *all Elements and corresponding Appendices are audited once every Calendar Year.*
- *audit date shall be determined between the QMS representative & the Internal Auditor.*
- *a written report of the audit results shall be submitted to Top Management and the results included in the Management review.*
- *when a non-conformity is identified through the audit process, an action plan to rectify the issue is developed by Top Management & the QMS Representative through the Action Tracking Register spreadsheets (CAR's, OFI's, Action Items, BMP's, MECP BMPs)*
- *the non-conformity is then documented on the CAR's (corrective action report) spreadsheet with "root cause" and "action implemented" categories to ensure continual maintenance & improvement of the QMS*
- *corrective actions are communicated to the responsible individual and included as part of the Management Review.*
- *a 90-day evaluation is conducted on the corrective actions by the QMS Rep to ensure completion and/or a resolution.*

Qualified consultants used to carry out an Internal audit may use their own audit report formats and checklists that meet the DWQMS requirements and approved by Top Management.

ELEMENT # 20 – MANAGEMENT REVIEW

Top Management conducts a Management review with the Owner/Owner Rep once every Calendar Year to evaluate the continuing stability, adequacy and effectiveness of the QMS.

The QMS Representative provides related information/data regarding the following categories for the review:

- a) *incidents of regulatory non-compliance*
- b) *incidents of adverse drinking water tests*
- c) *deviations from critical control limits and response actions*
- d) *effectiveness of the risk assessment process, including any updates to the assumptions used in the risk assessment and/or any updates to the risk assessment outcomes.*
- e) *internal and third-party audit results*
- f) *results of emergency response testing*
- g) *operational performance*
- h) *quality and quantity trends associated with the raw water supply*
- i) *drinking water quality trends*
- j) *follow-up action items from previous management reviews*
- k) *the status of management action items identified between reviews*
- l) *change that could affect the Quality Management System, including new or updated policies or legislation*
- m) *consumer feedback*
- n) *resources needed to maintain the Quality Management System*
- o) *results of the infrastructure review*
- p) *operational plan currency, content and updates, and*
- q) *staff suggestions*

Review Process

Management Review is a planned event. An appropriate amount of time is set aside by participants to confirm a thorough review of the QMS is conducted. Each of the required categories shall be reviewed to identify whether, where, or when improvement(s) to the QMS and its procedures are required.

The QMS Rep shall make note of any changes or action items required during the review. All action items will be recorded on the corresponding report in the Action Tracking Register.

Review Output

The Management review output will include the results of the review, identified deficiencies, decisions, action items and best management practices. Top Management & QMS Rep shall review meeting minutes before QMS Rep finalizes and distributes a copy by email to Top Management, Owner/Owner Representative, and any relevant parties within 30 days of the meeting. A copy of the Management review is available at the Water Department.

ELEMENT # 21 – CONTINUAL IMPROVEMENT

The Water Operating Authority shall strive to continually improve the effectiveness of its Quality Management System through the use of corrective actions, MECP Publications, on-going Management Reviews, Internal / External Audits, QMS reviews and follow-up corrective actions will be the basis for further improvement.

Corrective Actions, Preventative Actions and Best Management Practices are recorded on the Action Tracking Register spreadsheets. Sources may include:

Corrective Actions

Corrective Actions can be identified through internal or external audits, management reviews, OFI suggestions, results of other events such as an incident/emergency, community/owner complaint, staff reviews, operational checks, inspections or emergency response training outcomes & operator training sessions.

Preventative Actions

Preventive actions can be assessed through internal or external audits as OFI's, reviewing processes, procedures (SOPs), staff/owner suggestions/ and feedback, MECP inspections, evaluation of incidents/emergency response/tests, analysis of data/trends, non-conformances identified with other OMI drinking water systems, considering a BMP, risk assessment outcomes, emergency response reaction, training & outcomes.

Best Management Practices (BMP)

BMPs considers changes to legislative or regulatory requirements and/or outcomes from audit findings, staff reviews, MECP inspections, drinking water industry-based standards, staff suggestions/feedback, emergency response training outcomes/training sessions, management reviews, best practices with neighboring systems.

- Considers the Best Management Practice identified in the MECP document "Drinking Water System Best Management Practices; published October 3, 2025, and available on the website:
- <https://www.ontario.ca/page/drinking-water-system-best-management-practices>

36-month Best Management Practices – Reviewing and considering applicable Best Management Practices, including any published by the MECP at least once every thirty-six months. As an alternative to the once every 36-month BMP review the Operating Authority & staff identify, discuss and review BMPs at QMS meetings throughout the year.

The Action Tracking Register will be reviewed during the once every calendar year Management Review to ensure the actions recorded are implemented and are effective in reacting, correcting and preventing a re-occurrence of the non-conformity. Additionally the effectiveness of these items shall be reviewed at the time of the Management Review by reviewing the number of MECP non-compliances, internal and external audit results, consumer complaints etc.

APPENDIX “A” - QMS DOCUMENT AND RECORD CONTROL PROCEDURE

Documents: includes Operational Plan, as built drawings/mapping, manuals, charts, graphs, surveys, logbooks, forms, SOPs, photographs & information stored by means of any device.

- documents are generated electronically to ensure legibility & identifiable though a title/header.
- electronic documents are retrievable and stored on a shared web-based network, (SharePoint) secured by a password. The SharePoint network is subjected to daily backups. Electronic versions of the documents for disposal will be stored in a historical/obsolete file
- obsolete documents/forms (due to changes) shall be collected and destroyed/shredded and or deleted as applicable.

Records: a document(s) which states the results achieved and/or provide proof of activities being performed (data entry log sheets, monthly reports, management reviews, internal & external audit reports, QMS meetings, etc..)

- manual records will be shredded & disposed of after relevant retention time has expired
- manual records/hard-copies shall be stored/protected in such a manner as to prevent deterioration (cabinet, bankers box, dry area, off floor/elevated)
- records shall show the name or initials of the recorder, date and time (if appropriate) that the record was generated.
- manual records will be legible and permanently rendered in black ink. Pencil or any other erasable marker shall not be used to record processes, product information or data.
- logbook entry and or data entry mistakes are crossed-out by the Operator & initialed, no corrective fluid is ever used.
- QMS related water distribution records will be retrievable at the Water Department.

Creating New or Updating Existing Documents:

- the need for document changes or for new document(s) or procedures may be identified through audits, management reviews or QMS staff reviews.
- electronic versions of the new/changed documents will be created by the QMS Representative and approved by Top Management.
- an employee or contract operator may request a change to an existing QMS document. The request must be made in writing, dated and submitted to Top Management for approval and must include the following:
 1. State the reason for the new or changed document & the reason must belong in one or more of these categories:
 - a) Enhances process control & may improve operational efficiency
 - b) Reduces risk(s)
 - c) Supports regulatory requirements
 - d) Required by the DWQMS
 2. Outline of document change or new document content – narrative format is acceptable

Approving Documents

- QMS related documents shall be approved by Top Management.
- the QMS Representative shall be responsible for ensuring copies of the new or changed document show the revision number and/or date modified/issued.

Reviewing Documents

- the Operational Plan , Elements 1 – 21 and corresponding Appendices shall be reviewed once every Calendar Year for applicability and relevance during the Internal Audit.

Document Availability

- Operational Plans, SOPs, bylaws, maintenance records, annual/monthly reports and QMS meetings are retained at the Water Department
- applicable equipment manuals and specifications are kept at the Public Works Office/Garage
- as Built drawings are kept digitally at the Municipal Office & hard copies are at the Public Works Garage & Water Department
- the MDWL and MWWP are kept the Water Department for staff to review and on the Town's web-site for the public to view.
- Operational Plans are published on the Municipal website for the Public to view.

QMS Record Control

- this procedure is applicable to all records that pertain to DWQMS requirements. All records that demonstrate compliance are covered by the Ontario Safe Drinking Water Act (OSDWA)
- documents and records have designated minimum retention times, which must comply with applicable legislated requirements, and conform to the DWQMS.

Municipal Drinking Water License & Drinking Water Works Permit: 5 yrs (section 1.0 of the License)

Operator Training records: 5 yrs (O. Reg. 128/04 under SDWA, 2002)

Annual Reports and Summary Reports: 5 yrs (O. Reg. 170/03 under SDWA, 2002)

Logbooks & other record-keeping mechanisms: 5 yrs (O. Reg. 128/04 under SDWA/2002)

Lab analyses of samples for chemical tests: 15 yrs (O. Reg. 170/03 under SDWA/2002)

Lab analyses of samples for microbiological, chlorine and turbidity tests, and fluoride tests where fluoridation is provided: 5 yrs (O. Reg. 170/03 under SDWA, 2002)

APPENDIX “B” – ESSENTIAL SUPPLIES & SERVICES CONTACT LIST

E – ESSENTIAL – The remaining contacts are non-essential

Village of Oil Springs		
Oil Springs Clerk/Treasurer	519-834-2939 (office)	519-834-2333 (fax)
Oil Springs Administration	519-834-2939 (office)	
Public Works 24/7 contact	519-339-8106 (on-call cell)	
OMI - Operating Authority		
24/7 Answering Service	1-888-399-1643	
24/7 on-call cell	519-490-4431	
Joe Bloomfield	519-381-0542 (cell)	Ontario Reginal Manager
Chris Toulouse	519-466-8450 (cell)	Project Manager/ORO
Cathy Culnan	519-466-4631 (cell)	QMS Rep / Operator
Derek Daly	519-381-3211 (cell)	Lead Operator
Rae Piggott	226-2327542 (cell)	Operator
Township of Enniskillen		
Enniskillen Administration	519-882-2490 (office)	519-882-3335 (fax)
E – Pager – after hours	519-339-8128	
Adverse Water Contacts		
MOH (Lambton Health Unit)	519-383-8331	519-383-7092 (fax)
SAC (Spill Action Center)	1-800-268-6060	1-800-268-6061 (fax)
SAC (Spill Action Center)	moe.sac.moe@ontario.ca	
MECP District office	519-336-4030	519-336-4280 (fax)
E – SGS laboratories (London)	519-672-4500 (office) 519-870-7345 (after hours)	Sample analysis: E-coli, Total Coliforms, Lead, HPC, THM, HAA
Equipment & Parts Suppliers		
E – EMCO Acct # 8390042939	519-686-7340 (office)	6, 8, 10, 12-inch piping 1- & 2-inch curb stops Hydrants and Hydrant parts Distribution & Isolation valves
E – KTI Limited	1-800-665-9654	¾ & ½ inch water meters
E – Hach Canada	1-800-227-4224 ext. 6152	Chlorine residual reagents, verification reagents

Contractors/ Excavators/Repairs		
E – Prange’s Mini-Ex Service	519-381-4740 (cell)	on site excavation responsibilities
E – Gillier Drainage	519-692-3300 (office)	on site excavation responsibilities
VAC Trucks		
Central Sanitation	519-336-2465 (office)	519-490-4339 (after hours)
CT Environmental	1-519-236-7401 (office)	519-476-4956 (24/7 cell)
D & B Flushing	519-350-2399 (24/7 cell)	
Electrical		
DMW	519-336-3003 (office)	519-336-3995 (fax)
Kirt Roach (DMW)	519-490-4787 (cell)	
Electrozad	519-336-8550	519-336-4812 (fax)
Bulk Fuel		
Waddick Fuels (Petrolia)	519-882-2420 (office)	1-888-561-0999 (24/7)
Bond Petroleum (Sarnia)	519-337-5085 (24/7)	
Mackenzie Oil	519-336-0521 →	Also answering service after Hrs.
Bottled/Bulk Water Suppliers		
Kern Water (Sarnia) (bottled)	519-542-4211 (office)	519-381-5485 (after hours)
Huron Water Supply (bulk) (3500 gal)	519-383-3240 (Mark)	519-383-4055 (Shawn)
Harold Marcus Ltd (bulk) (8000 gal)	519-695-3734 (office)	519-695-2249 (fax)
Harold Marcus Ltd	1-800-265-9426 (24/7)	
Other		
Town of Petrolia	519-882-2350 (office)	
Township of Dawn-Euphemia	519-692-5148 (office)	
Ontario One Call Locates	1-800-400-2255	
Union Gas Emergencies	1-877-969-0999	

APPENDIX “C” – RISK ASSESSMENT & OUTCOMES TABLE

Activity or Process Step	Description of Hazard	Potential Result of Hazard	Comments	Available Monitoring & Control Measures	Emergency Procedure	A	B	C	D	CCP? Y/N	Critical Control Limits	Reference Procedure
Source Water (treated water – Petrolia via Enniskillen)	Contamination of source water Source water supply shortfall or loss Enniskillen Reservoir O.O.S	Chemical or biological contamination of source water AWQI	No control. Enniskillen contacts Operating Authority	System online monitoring by the Enniskillen water supplier (Petrolia)	Isolate distribution system from supply. Notify Health unit Flush & analyze for chlorine residual Bypass valve at Reservoir is opened and Oil Springs fed directly from the main	2	3	1	6	No		SOP # 1 SOP # 10 SOP # 5 SOP # 4
Distribution	Watermain break within distribution system Contamination of water source	Quantity/ quality Low pressure or back siphoning Loss of water to customers Bacteriological or chemical contamination	No elevated distribution system storage. Contact Enniskillen & continuously pump from reservoir	Customer complaints low pressure or high flow through supply meters visual if at ground.	Repair according to SOP for Water Main Repair Analyze for Chlorine residual Microbiological testing as necessary. Notify Health Unit as necessary (boil water order)	1	4	4	9	Yes	0.20 mg/L free chlorine residual < 20 psi	SOP # 1 SOP # 4 SOP # 7 SOP # 9

Activity or Process Step	Description of Hazard	Potential Result of Hazard	Comments	Available Monitoring & Control Measures	Emergency Procedure	A	B	C	D	CCP? Y/N	Critical Control Limits	Reference Procedure
Distribution	Loss of chlorine residual Chlorine Saturation	Biological contamination Potential AWQI	Legislated under O. Reg. 170/03	Chlorine residual monitoring at Enniskillen reservoir (O. Reg 170/03) OA analyzes chlorine residual analysis 2X's per week	Flush distribution system to increase chlorine dosage and resample. Contact/Inform the Enniskillen Public Works Emergency connection to neighboring systems	1	4	2	7	Yes	Chlorine residual < 0.20 mg/ L Chlorine residual > 4.0 mg/L	SOP # 1 SOP # 4 SOP # 5 SOP # 11
Distribution	Commissioning of new watermain causing contamination	Biological contamination Potential AWQI Potential Loss of Water		Follow procedures for watermain repair Check chlorine residual and conduct microbiological testing	Follow corrective action per O. Reg. 170/03. Notify Health Unit as necessary (boil water order) Resample if necessary	1	2	1	4	No		SOP # 1 SOP # 4 SOP # 9
Distribution	Pandemic	Staff Shortage Loss of Staff		Masks, gloves, hand sanitizer, disinfecting workplace Visitor Questionnaire	Follow Federal & Provincial Mandated Guidelines Alternating Staff Staff working from home	2	2	1	5	No		Federal & Provincial Orders

Activity or Process Step	Description of Hazard	Potential Result of Hazard	Comments	Available Monitoring & Control Measures	Emergency Procedure	A	B	C	D	CCP? Y/N	Critical Control Limits	Reference Procedure
Distribution	Loss of pressure – watermain break, major fire Sustained Pressure loss	AWQI Low pressure/ back siphoning Bacteriological or chemical contamination Water hammer		Consumer complaints Backflow contamination prevented by backflow preventers on all service connections Emergency connection	Check pressure and chlorine residual, discussions with MECP and Health Unit Restore pressure and chlorine residual. Conduct sampling per MECP and Health Unit direction Contact/Inform the Enniskillen Public Works	3	2	2	7	Yes	< 20 psi	SOP # 1 SOP # 7 SOP # 9 SOP # 10
Distribution	Extreme weather events -Tornado -Flooding -Ice Storm	Potential for AWQI Potential for loss of water Increased demand Frozen services		Environmental monitoring trends Historical Events News reports	Monitor chlorine residuals in system Possible water conservation order Emergency connection	2	2	1	5	No		SOP # 1 SOP # 14
Distribution	Terrorist threat Cyber Security Threat Vandalism	Potential for AWQI Loss of data	Local news reports for information	Observant staff SharePoint and/or paper copies Routine Inspection Fences, gates, locks	Monitor chlorine residuals in system Refer to SharePoint Contact Authorities, ORO, PM, Owner	1	1	1	3	No		SOP # 1 SOP # 4

Activity or Process Step	Description of Hazard	Potential Result of Hazard	Comments	Available Monitoring & Control Measures	Emergency Procedure	A	B	C	D	CCP? Y/N	Critical Control Limits	Reference Procedure
Distribution	Backflow from private plumbing (cross connection)	AWQI Biological and chemical contamination	Backflow preventers on all service connections	Meters are installed on all water services that are in use. Backflow required on all active water services through bylaw	Notify Health Unit, MECF and Spills Action Centre, if necessary communicate boil water order after consultation with Health Unit	2	2	2	6	No		SOP # 1 SOP # 10 Bylaw # 1035 of 2025
Distribution	Biofilms	Biological and quality Loss of chlorine residual		Visual inspection of pipe breaks, reduced flow in pipes, inability to maintain chlorine residual Flushing and swabbing	Flush system hydrants to maintain system chlorine residual Contact/Inform the Enniskillen Public Works	1	1	5	5	No		SOP # 1 SOP # 5
Distribution	Long Term Impacts of Climate Change -Drought -Heat Wave -Deep Freeze -Sustained Extreme Temperatures	Potential for Increased demand Potential for reduction in water Potential for water conservation	www.climatedata.ca	Monitor Chlorine residuals Hydrants are pumped out to prevent freezing Sample Stations are pumped out during winter to prevent freezing	Flushing hydrants to ensure chlorine residual in system during extreme heat Possible water conservation order Emergency connection to neighboring systems	2	3	1	6	No		SOP # 1 SOP # 4 SOP # 10 SOP # 11
Previous 36-month Risk Assessment & Outcomes conducted – July 3, 2025												