

Element 1 – Quality Management System

DWQMS 2006

PLAN – The Operational Plan shall document a Quality Management System that meets the requirements of this Standard.

DO – The Operating Authority shall establish and maintain the Quality Management System in accordance with the requirements of this Standard and the policies and procedures documented in the Operational Plan.

DWQMS 2.0 2017

PLAN – The Operational Plan shall document a Quality Management System that meets the requirements of this Standard.

DO – The Operating Authority shall establish and maintain the Quality Management System in accordance with the requirements of this Standard and the policies and procedures documented in the Operational Plan.

Changes

No change with Element 1.

Element 2 – Quality Management System Policy

DWQMS 2006

PLAN – The Operational Plan shall document a Quality Management System Policy that provides the foundation for the Quality Management System, and:

- a) is appropriate for the size and type of the subject system,
- b) includes a commitment to the maintenance and continual improvement of the Quality Management System,
- c) includes a commitment to the consumer to provide safe drinking water,
- d) includes a commitment to comply with applicable legislation and regulations, and
- e) is in a form that provides for ready communication to all Operating Authority personnel, the Owner and the public.

DO – The Operating Authority shall establish and maintain a Quality Management System that is consistent with the Policy.

DWQMS 2.0 2017

PLAN – The Operational Plan shall document a Quality Management System Policy that provides the foundation for the Quality Management System, and:

- a) includes a commitment to the maintenance and continual improvement of the Quality Management System,
- b) includes a commitment to the Consumer to provide safe drinking water,
- c) includes a commitment to comply with applicable legislation and regulations, and
- d) is in a form that can be communicated to all Operating Authority personnel, the Owner and the Public.

DO – The Operating Authority shall establish and maintain a Quality Management System that is consistent with the Quality Management System Policy.

Changes

The following clause has been removed from the **PLAN** portion of the Standard:

- a) is appropriate for the size and type of the subject system

This is the only change to the Standard for this element.

Element 3 – Commitment and Endorsement

DWQMS 2006

PLAN – The Operational Plan shall contain a written endorsement of its contents by Top Management and the Owner.

DO – Top Management shall provide evidence of its commitment to an effective Quality Management System by:

- a) ensuring that a Quality Management System is in place that meets the requirements of this Standard,
- b) ensuring that the Operating Authority is aware of all applicable legislative and regulatory requirements,
- c) communicating the Quality Management System according to the procedure for communications, and
- d) determining, obtaining or providing the resources needed to maintain and continually improve the Quality Management System.

DWQMS 2.0 2017

PLAN – The Operational Plan shall contain a written endorsement of its contents by Top Management and the Owner.

DO – Top Management shall provide evidence of its commitment to an effective Quality Management System by:

- a) ensuring that a Quality Management System is in place that meets the requirements of this Standard,
- b) ensuring that the Operating Authority is aware of all applicable legislative and regulatory requirements,
- c) communicating the Quality Management System according to the procedure for communications,
- d) determining, obtaining or providing the resources needed to maintain and continually improve the Quality Management System.

Changes

No change with element 3.

Element 4 – QMS Representative

DWQMS 2006

PLAN – The Operational Plan shall identify a Quality Management System representative.

DO – Top Management shall appoint and authorize a Quality Management System representative who, irrespective of other responsibilities, shall:

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

DWQMS 2.0 2017

PLAN – The Operational Plan shall identify a Quality Management System representative.

DO – Top Management shall appoint and authorize a Quality Management System representative who, irrespective of other responsibilities, shall:

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

Changes

No change with element 4.

Element 5 – Document and Records Control

DWQMS 2006

PLAN – The Operational Plan shall document a procedure for document and records control that describes how:

- a) documents required by the Quality Management System are:
 - i. kept current, legible and readily identifiable
 - ii. retrievable
 - iii. stored, protected, retained and disposed of, and
- b) records required by the Quality Management System are:
 - i. kept legible, and readily identifiable
 - ii. retrievable
 - iii. stored, protected, retained and disposed of.

DO – The Operating Authority shall implement and conform to the procedure for document and records control shall ensure that the Quality Management System documentation for the subject system includes:

- a) the Operational Plan and its associated policies and procedures,
- b) documents and records determined by the Operating Authority as being needed to ensure the effective planning, operation and control of its operations, and

- c) the results of internal and external audits and management reviews.

DWQMS 2.0 2017

PLAN – The Operational Plan shall document a procedure for Document and Records control that describes how:

- a) Documents required by the Quality Management System are:
 - i. kept current, legible and readily identifiable
 - ii. retrievable
 - iii. stored, protected, retained and disposed of, and
- b) Records required by the Quality Management System are:
 - i. kept legible, and readily identifiable
 - ii. retrievable
 - iii. stored, protected, retained and disposed of.

DO – The Operating Authority shall implement and conform to the procedure for Document and Records control and shall ensure that the Quality Management System documentation for the Subject System includes:

- a) the Operational Plan and its associated policies and procedures,
- b) Documents and Records determined by the Operating Authority as being needed to ensure the effective planning, operation and control of its operations, and

- c) the results of internal and external Audits and management reviews.

Changes

No change with element 5.

Element 6 – Drinking Water System

DWQMS 2006

PLAN – The Operational Plan shall document, as applicable:

- a) for the subject system:
 - i. a description of the system including all treatment processes and distribution system components
 - ii. the name of the Owner and Operating Authority
 - iii. a process flow chart
 - iv. a description of the water source, including:
 - i. general characteristics of the raw water supply
 - ii. common event-driven fluctuations and
 - iii. any resulting operational challenges and threats
 - v. a description of any critical upstream or downstream processes relied upon to ensure the provision of safe drinking water.
- b) If the subject system is an operational subsystem, a summary description of the municipal residential drinking water system it is part of
- c) If the subject system is connected to one or more other drinking water systems owned by different owners, a summary description of those systems which:
 - i. Indicates whether the subject system obtains water from or supplies water to those systems, and
 - ii. Names the Owner and Operating Authority of those systems.

DO – The Operating Authority shall ensure that the description of the drinking water system is kept current.

DWQMS 2.0 2017

PLAN – The Operational Plan shall document, as applicable:

- a) for the Subject System:
 - i. the name of the Owner and Operating Authority,
 - ii. if the system includes equipment that provides Primary Disinfection and/or Secondary Disinfection:
 - A. a description of the system including all applicable Treatment System processes and Distribution System components,
 - B. a Treatment System process flow chart,
 - C. a description of the water source, including:
 - I. general characteristics of the raw water supply,
 - II. common event-driven fluctuations, and
 - III. any resulting operational challenges and threats.
 - iii. if the system does not include equipment that provides Primary Disinfection or Secondary Disinfection:
 - A. a description of the system including all Distribution System components, and
 - B. a description of any procedures that are in place to maintain disinfection residuals.
- b) if the Subject System is an Operational Subsystem, a summary description of the Municipal Residential Drinking Water System it is a part of including the name of the Operating Authority(ies) for the other Operational Subsystems.
- c) if the Subject System is connected to one or more other Drinking Water Systems owned by different Owners, a summary description of those systems which:
 - i. indicates whether the Subject System obtains water from or supplies water to those systems,
 - ii. names the Owner and Operating Authority(ies) of those systems, and
 - iii. identifies which, if any, of those systems that the Subject System obtains water from are relied upon to ensure the provision of safe drinking water.

DO – The Operating Authority shall ensure that the description of the Drinking Water System is kept current.

Changes

The element has been updated to reflect current drinking water subsystem components (i.e. clear direction of what is required for distribution only subsystems).

Of the changes, the following pertain to Markham's distribution system:

- iii. if the system does not include equipment that provides Primary Disinfection or Secondary Disinfection:

- A. a description of the system including all Distribution System components, and
- B. a description of any procedures that are in place to maintain disinfection residuals.
- b) if the Subject System is an Operational Subsystem, a summary description of the Municipal Residential Drinking Water System it is a part of including the name of the Operating Authority(ies) for the other Operational Subsystems.
- c) if the Subject System is connected to one or more other Drinking Water Systems owned by different Owners, a summary description of those systems which:
- iii. indicates whether the Subject System obtains water from or supplies water to those systems,

- iv. names the Owner and Operating Authority(ies) of those systems, and
- iii. identifies which, if any, of those systems that the Subject System obtains water from are relied upon to ensure the provision of safe drinking water.

These are the only changes to the Standard for this element.

Element 7 – Risk Assessment

DWQMS 2006

PLAN – The Operational Plan shall document a risk assessment process that:

- a) identifies potential hazardous events and associated hazards,
- b) assesses the risks associated with the occurrence of hazardous events,
- c) ranks the hazardous events according to the associated risk,
- d) identifies control measures to address the potential hazards and hazardous events,
- e) identifies critical control points,
- f) identifies a method to verify at least once a year, the currency of the information and the validity of the assumptions used in the risk assessment,
- g) ensures that a risk assessment is conducted at least once every thirty-six months, and
- h) considers the reliability and redundancy of equipment.

DO – The Operating Authority shall perform a risk assessment consistent with the documented process.

DWQMS 2.0 2017

PLAN – The Operational Plan shall document a risk assessment process that:

- a) Considers potential hazardous events and associated hazards, as identified in the Ministry of the Environment and Climate Change document titled Potential Hazardous Events for Municipal Residential Drinking Water Systems, dated February 2017 as it may be amended. A copy of this document is available at www.ontario.ca/drinkingwater.
- b) identifies additional potential hazardous events and associated hazards,
- c) assesses the risks associated with the occurrence of hazardous events,
- d) ranks the hazardous events according to the associated risk,
- e) identifies control measures to address the potential hazards and hazardous events,
- f) identifies Critical Control Points,
- g) 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,
- h) ensures that the risks are assessed at least once every thirty-six months, and
- i) considers the reliability and redundancy of equipment.

DO – The Operating Authority shall perform a risk assessment consistent with the documented process.

Changes

The following clause has been added to the **PLAN** portion of the Standard:

- a) Considers potential hazardous events and associated hazards, as identified in the Ministry of the Environment and Climate Change document titled Potential Hazardous Events for Municipal Residential

Drinking Water Systems, dated February 2017 as it may be amended. A copy of this document is available at www.ontario.ca/drinkingwater.

The following clauses had minor wording changes in the **PLAN** portion of the Standard:

- b) identifies additional potential hazardous events and associated hazards

- g) 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,

These are the only changes to the Standard for this element.

Element 8 – Risk Assessment Outcomes

DWQMS 2006

PLAN – The Operational Plan shall document:

- a) the identified potential hazardous events and associated hazards,
- b) the assessed risks associated with the occurrence of hazardous events,
- c) the ranked hazardous events
- d) the identified control measures to address the potential hazards and hazardous events,
- e) the identified critical control points and their respective critical control limits,
- f) procedures and/or processes to monitor the critical control limits,
- g) procedures to respond to deviations from the critical control limits,
- h) procedures for reporting and recording deviations from the critical control limits.

DO – The Operating Authority shall implement and conform to the procedures.

DWQMS 2.0 2017

PLAN – The Operational Plan shall document:

- a) the identified potential hazardous events and associated hazards,
- b) the assessed risks associated with the occurrence of hazardous events,
- c) the ranked hazardous events,
- d) the identified control measures to address the potential hazards and hazardous events,
- e) the identified Critical Control Points and their respective Critical Control Limits,
- f) procedures and/or processes to monitor the Critical Control Limits,
- g) procedures to respond to deviations from the Critical Control Limits, and
- h) procedures for reporting and recording deviations from the Critical Control Limits.

DO – The Operating Authority shall implement and conform to the procedures.

Changes

No change with element 8.

Element 9 – Organizational Structure, Roles, Responsibilities and Authorities

DWQMS 2006

PLAN – The Operational Plan shall:

- a) describe the organizational structure of the Operating Authority including respective roles, responsibilities and authorities,
- b) delineate corporate oversight roles, responsibilities and authorities in the case where the Operating Authority operates multiple subject systems,
- c) identify the person, persons or group of people within the management structure of the organization responsible for undertaking the Management Review,
- d) identify the person, persons or group of people, having Top Management responsibilities required by this Standard, along with their responsibilities, and
- e) identify the Owner of the subject system.

DO – The Operating Authority shall keep current the description of the organizational structure including respective roles, responsibilities and authorities, and shall communicate this information to Operating Authority personnel and the Owner.

DWQMS 2.0 2017

PLAN – The Operational Plan shall:

- a) describe the organizational structure of the Operating Authority including respective roles, responsibilities and authorities,
- b) delineate corporate oversight roles, responsibilities and authorities in the case where the Operating Authority operates multiple Subject Systems,
- c) identify the person, persons or group of people within the management structure of the organization responsible for undertaking the Management Review described in Element 20,
- d) identify the person, persons or group of people, having Top Management responsibilities required by this Standard, along with their responsibilities, and
- e) identify the Owner of the Subject System.

DO – The Operating Authority shall keep current the description of the organizational structure including respective roles, responsibilities and authorities, and shall communicate this information to Operating Authority personnel and the Owner.

Changes

The following clause had minor wording changes in the **PLAN** portion of the Standard:
– c) described in Element 20

This is the only change to the Standard for this element.

Element 10 – Competencies

DWQMS 2006

PLAN – The Operational Plan shall document:

- a) competencies required for personnel performing duties directly affecting drinking water quality,
- b) activities to develop and maintain competencies for personnel performing duties directly affecting drinking water quality, and
- c) activities to ensure that personnel are aware of the relevance of their duties and how they affect safe drinking water.

DO – The Operating Authority shall undertake activities to:

- a) meet and maintain competencies for personnel directly affecting drinking water quality and shall maintain records of these activities, and
- b) ensure that personnel are aware of the relevance of their duties and how they affect safe drinking water, and shall maintain records of these activities.

DWQMS 2.0 2017

PLAN – The Operational Plan shall document:

- a) competencies required for personnel performing duties directly affecting drinking water quality,
- b) activities to develop and/or maintain competencies for personnel performing duties directly affecting drinking water quality, and
- c) activities to ensure that personnel are aware of the relevance of their duties and how they affect safe drinking water.

DO – The Operating Authority shall undertake activities to:

- a) meet and maintain competencies for personnel directly affecting drinking water quality and shall maintain records of these activities, and
- b) ensure that personnel are aware of the relevance of their duties and how they affect safe drinking water, and shall maintain records of these activities.

Changes

No change with element 10.

Element 11 – Personnel Coverage

DWQMS 2006

PLAN – The Operational Plan shall document a procedure to ensure that sufficient personnel meeting identified competencies are available for duties that directly affect drinking water quality.

DO – The Operating Authority shall implement and conform to the procedure.

DWQMS 2.0 2017

PLAN – The Operational Plan shall document a procedure to ensure that sufficient personnel meeting identified competencies are available for duties that directly affect drinking water quality.

DO – The Operating Authority shall implement and conform to the procedure.

Changes

No change with element 11.

Element 12 – Communications

DWQMS 2006

PLAN – The Operational Plan shall document a procedure for communications that describes how the relevant aspects of the Quality Management System are communicated between Top Management and:

- a) the Owner,
- b) Operating Authority personnel,
- c) Suppliers, and
- d) the public.

DO – The Operating Authority shall implement and conform to the procedure.

DWQMS 2.0 2017

PLAN – The Operational Plan shall document a procedure for communications that describes how the relevant aspects of the Quality Management System are communicated between Top Management and:

- a) the Owner,
- b) Operating Authority personnel,
- c) Suppliers that have been identified as essential under Plan (a) of Element 13 of this Standard, and
- d) the Public.

DO – The Operating Authority shall implement and conform to the procedure.

Changes

The following clause had minor wording changes in the **PLAN** portion of the Standard:

- c) Suppliers that have been identified as essential under Plan (a) of Element 13 of this Standard

This is the only change to the Standard for this element.

Element 13 – Essential Supplies and Services

DWQMS 2006

PLAN – The Operational Plan shall:

- a) identify all supplies and services essential for the delivery of safe drinking water and shall state, for each supply or service, the means to ensure its procurement, and
- b) include a procedure by which the Operating Authority ensures that quality of essential supplies and services, in as much as they may affect drinking water quality.

DO – The Operating Authority shall implement and conform to the procedure.

DWQMS 2.0 2017

PLAN – The Operational Plan shall:

- a) identify all supplies and services essential for the delivery of safe drinking water and shall state, for each supply or service, the means to ensure its procurement, and
- b) include a procedure by which the Operating Authority ensures the quality of essential supplies and services, in as much as they may affect drinking water quality.

DO – The Operating Authority shall implement and conform to the procedure.

Changes

No change with element 13.

Element 14 – Review and Provision of Infrastructure

DWQMS 2006

PLAN – The Operational Plan shall document a procedure for the annual review of the adequacy of the infrastructure necessary to operate and maintain the subject system.

DO – The Operating Authority shall implement and conform to the procedure and communicate the findings of the review to the Owner.

DWQMS 2.0 2017

PLAN – The Operational Plan shall document a procedure for reviewing the adequacy of the infrastructure necessary to operate and maintain the Subject System that:

- a) Considers the outcomes of the risk assessment documented under Element 8, and
- b) Ensures that the adequacy of the infrastructure necessary to operate and maintain the Subject System is reviewed at least once every Calendar Year.

DO – The Operating Authority shall implement and conform to the procedure and communicate the findings of the review to the Owner.

Changes

The following clauses have been added to the **PLAN** portion of the Standard:

- a) Considers the outcomes of the risk assessment documented under Element 8, and
- b) Ensures that the adequacy of the infrastructure necessary to operate and maintain the Subject System is reviewed at least once every Calendar Year.

These are the only changes to the Standard for this element.

Element 15 – Infrastructure Maintenance, Rehabilitation and Renewal

DWQMS 2006

PLAN – The Operational Plan shall document a summary of the Operating Authority’s infrastructure maintenance, rehabilitation and renewal programs for the subject system.

DO – The Operating Authority shall:

- a) keep the summary current,
- b) communicate the programs to the Owner, and
- c) monitor the effectiveness of the maintenance program.

DWQMS 2.0 2017

PLAN – The Operational Plan shall document:

- a) a summary of the Operating Authority’s infrastructure maintenance, rehabilitation and renewal programs for the Subject System, and
- b) a long term forecast of major infrastructure maintenance, rehabilitation and renewal activities.

DO – The Operating Authority shall:

- a) keep the summary of the infrastructure maintenance, rehabilitation and renewal programs current,
- b) ensure that the long term forecast is reviewed at least once every Calendar Year,
- c) communicate the programs to the Owner, and
- d) monitor the effectiveness of the maintenance program.

Changes

The following clause has been added to the **PLAN** portion of the Standard:

- b) a long term forecast of major infrastructure maintenance, rehabilitation and renewal activities.

The following clause has been added to the **DO** portion of the Standard:

- b) ensure that the long term forecast is reviewed at least once every Calendar Year,

These are the only changes to the Standard for this element.

Element 16 – Sampling, Testing and Monitoring

DWQMS 2006

PLAN – The Operational Plan shall document:

- a) a sampling, testing and monitoring procedure for process control and finished drinking water quality including requirements for sampling and monitoring at the conditions most challenging to the subject system,
- b) a description of any relevant sampling, testing or monitoring activities that take place upstream of the subject system, and
- c) a procedure that describes how sampling, testing and monitoring results are recorded and shared between the Operating Authority and the Owner, where applicable.

DO – The Operating Authority shall implement and conform to the procedures.

DWQMS 2.0 2017

PLAN – The Operational Plan shall document:

- a) a sampling, testing and monitoring procedure for process control and finished drinking water quality including requirements for sampling, testing and monitoring at the conditions most challenging to the Subject System,
- b) a description of relevant sampling, testing or monitoring activities, if any, that take place upstream of the Subject System, and
- c) a procedure that describes how sampling, testing and monitoring results are recorded and shared between the Operating Authority and the Owner, where applicable.

DO – The Operating Authority shall implement and conform to the procedures.

Changes

The following clauses have minor wording changes in the **PLAN** portion of the Standard:

- a) addition of “testing”
- b) addition of “if any”

These are the only changes to the Standard for this element.

Element 17 – Measurement and Recording Equipment Calibration and Maintenance

DWQMS 2006

PLAN – The Operational Plan shall document a procedure for the calibration and maintenance of measurement and recording equipment.

DO – The Operating Authority shall implement and conform to the procedure.

DWQMS 2.0 2017

PLAN – The Operational Plan shall document a procedure for the calibration and maintenance of measurement and recording equipment.

DO – The Operating Authority shall implement and conform to the procedure.

Changes

No change with element 17.

Element 18 – Emergency Management

DWQMS 2006

PLAN – The Operational Plan shall document a procedure to maintain a state of emergency preparedness that includes:

- a) a list of potential emergency situations or service interruptions,
- b) processes for emergency response and recovery,
- c) emergency response training and testing requirements,
- d) Owner and Operating Authority responsibilities during emergency situations,
- e) references to municipal emergency planning measures as appropriate, and
- f) an emergency communication protocol and an up-to-date list of emergency contacts.

DO – The Operating Authority shall implement and conform to the procedure.

DWQMS 2.0 2017

PLAN – The Operational Plan shall document a procedure to maintain a state of emergency preparedness that includes:

- a) a list of potential emergency situations or service interruptions,
- b) processes for emergency response and recovery,
- c) emergency response training and testing requirements,
- d) Owner and Operating Authority responsibilities during emergency situations,
- e) references to municipal emergency planning measures as appropriate, and
- f) an emergency communication protocol and an up-to-date list of emergency contacts.

DO – The Operating Authority shall implement and conform to the procedure.

Changes

No change with element 18.

Element 19 – Internal Audits

DWQMS 2006

PLAN – The Operational Plan shall document a procedure for internal audits that:

- a) evaluates conformity of the QMS with the requirements of this Standard,
- b) identifies internal audit criteria, frequency, scope, methodology and record-keeping requirements,
- c) considers previous internal and external audit results,
- d) describes how Quality Management System corrective actions are identified and initiated.

DO – The Operating Authority shall implement and conform to the procedure and shall ensure that internal audits are conducted at least once every twelve months.

DWQMS 2.0 2017

PLAN – The Operational Plan shall document a procedure for internal audits that:

- a) evaluates conformity of the Quality Management System with the requirements of this Standard,
- b) identifies internal Audit criteria, frequency, scope, methodology and record-keeping requirements,
- c) considers previous internal and external Audit results, and
- d) describes how Quality Management System Corrective Actions are identified and initiated.

DO – The Operating Authority shall implement and conform to the procedure and shall ensure that internal Audits are conducted at least once every Calendar Year.

Changes

The following clause had a minor wording change in the **DO** portion of the Standard:

- at least once every Calendar Year

This is the only change to the Standard for this element.

Element 20 – Management Review

DWQMS 2006

PLAN – The Operational Plan shall document a procedure for management review that evaluates the continuing suitability, adequacy and effectiveness of the Quality Management System and that includes consideration of:

- a) incidents of regulatory non-compliance,
- b) incidents of adverse drinking water tests,
- c) deviations from critical control point limits and response actions,
- d) the efficacy of the risk assessment process,
- e) internal and third party audit results,
- f) results of emergency response testing,
- g) operational performance,
- h) raw water supply and drinking water quality trends,
- i) follow-up on action items from previous management reviews,
- j) the status of management action items identified between reviews,
- k) changes that could affect the Quality Management System,
- l) consumer feedback,
- m) the resources needed to maintain the Quality Management System,
- n) the results of the infrastructure review,
- o) Operational Plan currency, content and updates, and
- p) Staff suggestions.

DO – Top Management shall implement and conform to the procedure and shall:

- a) ensure that a management review is conducted at least once every twelve months,
- b) consider the results of the management review and identify deficiencies and action items to address the deficiencies,
- c) provide a record of any decision and action items related to the management review including the personnel responsible for delivering the action items and proposed timelines for their implementation, and

- d) reports the results of the management review, the identified deficiencies, decision and action items to the Owner.

DWQMS 2.0 2017

PLAN – The Operational Plan shall document a procedure for management review that evaluates the continuing suitability, adequacy and effectiveness of the Quality Management System and that includes consideration of:

- a) incidents of regulatory non-compliance,
- b) incidents of adverse drinking water tests,
- c) deviations from Critical Control Point limits and response actions,
- d) the effectiveness of the risk assessment process,
- e) internal and third-party Audit results,
- f) results of emergency response testing,
- g) operational performance,
- h) raw water supply and drinking water quality trends,
- i) follow-up on action items from previous management reviews,
- j) the status of management action items identified between reviews,
- k) changes that could affect the Quality Management System,
- l) Consumer feedback,
- m) the resources needed to maintain the Quality Management System,
- n) the results of the infrastructure review,
- o) Operational Plan currency, content and updates, and
- p) staff suggestions.

DO – Top Management shall implement and conform to the procedure and shall:

- a) ensure that a management review is conducted at least once every Calendar Year,
- b) consider the results of the management review and identify deficiencies and actions items to address the deficiencies,

- c) provide a record of any decisions and action items related to the management review including the personnel responsible for delivering the action items and the proposed timelines for their implementation, and
- d) report the results of the management review, the identified deficiencies, decisions and action items to the Owner.

Changes

The following clause had a minor wording change in the **DO** portion of the Standard:

- a) at least once every Calendar Year

This is the only change to the Standard for this element.

Element 21 – Continual Improvement

DWQMS 2006

DO – The Operating Authority shall strive to continually improve the effectiveness of its Quality Management System through the use of corrective actions.

DWQMS 2.0 2017

PLAN – The Operating Authority shall develop a procedure for tracking and measuring continual improvement of its Quality Management System by:

- a) reviewing and considering applicable best management practices, including any published by the Ministry of the Environment and Climate Change and available on www.ontario.ca/drinkingwater, at least once every thirty-six months;
- b) documenting a process for identification and management of Quality Management System Corrective Actions that includes:
 - i. investigating the cause(s) of an identified non-conformity,
 - ii. documenting the action(s) that will be taken to correct the non-conformity and prevent the non-conformity from re-occurring, and
 - iii. reviewing the action(s) taken to correct the non-conformity, verifying that they are implemented and are effective in correcting and preventing the re-occurrence of the non-conformity.
- c) documenting a process for identifying and implementing Preventive Actions to eliminate the occurrence of potential non-conformities in the Quality Management System that includes:
 - i. reviewing potential non-conformities that are identified to determine if preventive actions may be necessary,
 - ii. documenting the outcome of the review, including the action(s), if any, that will be taken to prevent a non-conformity from occurring, and
 - iii. reviewing the action(s) taken to prevent a non-conformity, verifying that they are implemented and are effective in preventing the occurrence of the non-conformity.

DO – The Operating Authority shall strive to continually improve the effectiveness of its Quality Management System by implementing and conforming to the procedure.

Changes

The **PLAN** portion of the Standard has been added.

The **DO** portion of the Standard had the following minor wording change:

- removed: through the use of corrective actions
- added: by implementing and conforming to the procedure

These are the only changes to the Standard for this element.