



Blind River Drinking Water System



2019 DWQMS - Report to Owner





Executive Summary



A requirement of the Ontario Drinking Water Quality Management Standard is the implementation of an annual management review of the Drinking Water Quality Management System. The results of this review are to be conveyed to Top Management and the Owner (Council).

A Management Review is held once per year by PUC Services to review the overall suitability, adequacy and effectiveness of the QMS. The last meeting was held December 13, 2019 in attendance by the Vice President, Operations & Engineering, the Director, Water Operations, QMS Representative/WTO Manager and WTO Supervisor.



Top Management reviewed information summarized on Form 20-01:



- a) Incidents of regulatory non-compliance
- b) Incidents of adverse drinking water tests
- c) Deviations from critical control point limits and response actions
- d) Efficacy of the risk assessment process
- e) Results of audits (internal and external)
- f) Results of relevant emergency response testing
- g) Operational performance
- h) Raw water supply and drinking water quality trends
- i) Follow-up action items from previous management reviews
- j) Status of management action items identified between reviews
- k) Changes that could affect the QMS
- l) Summary of consumer feedback
- m) Resources needed to maintain the QMS
- n) Results of the infrastructure review
- o) Operational Plan currency, content and updates
- p) Summary of staff suggestions
- q) New Business – Other issues that impact on the quality management system
- r) Date of Next Meeting



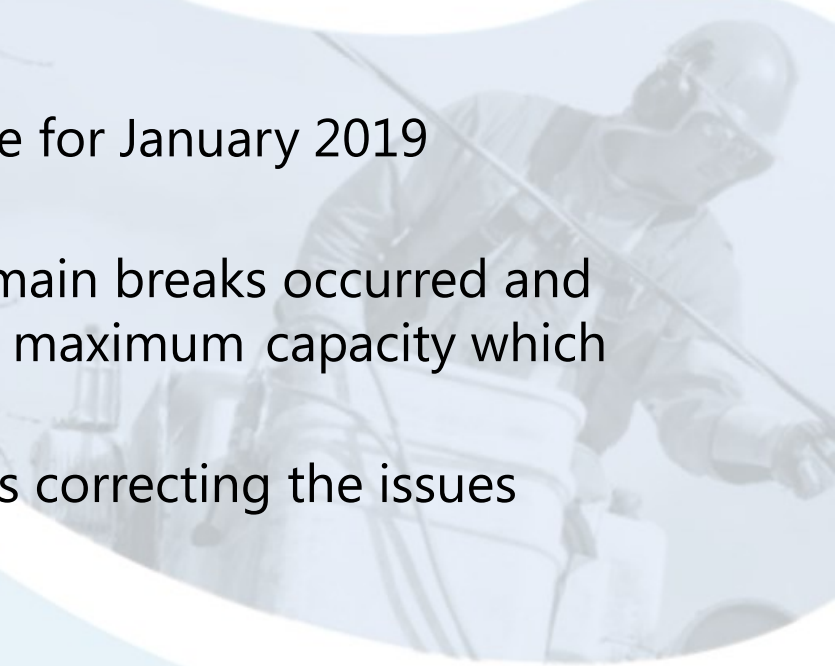
Incidents Of Adverse Drinking Water tests:



AWQI # 144685 – Failure to meet monthly compliance for January 2019

During the month of January – two simultaneous main breaks occurred and were extremely difficult to locate. The plant ran at maximum capacity which caused elevated turbidity in filtration processes.

The month of February revealed normal operations correcting the issues experienced in the previous month.



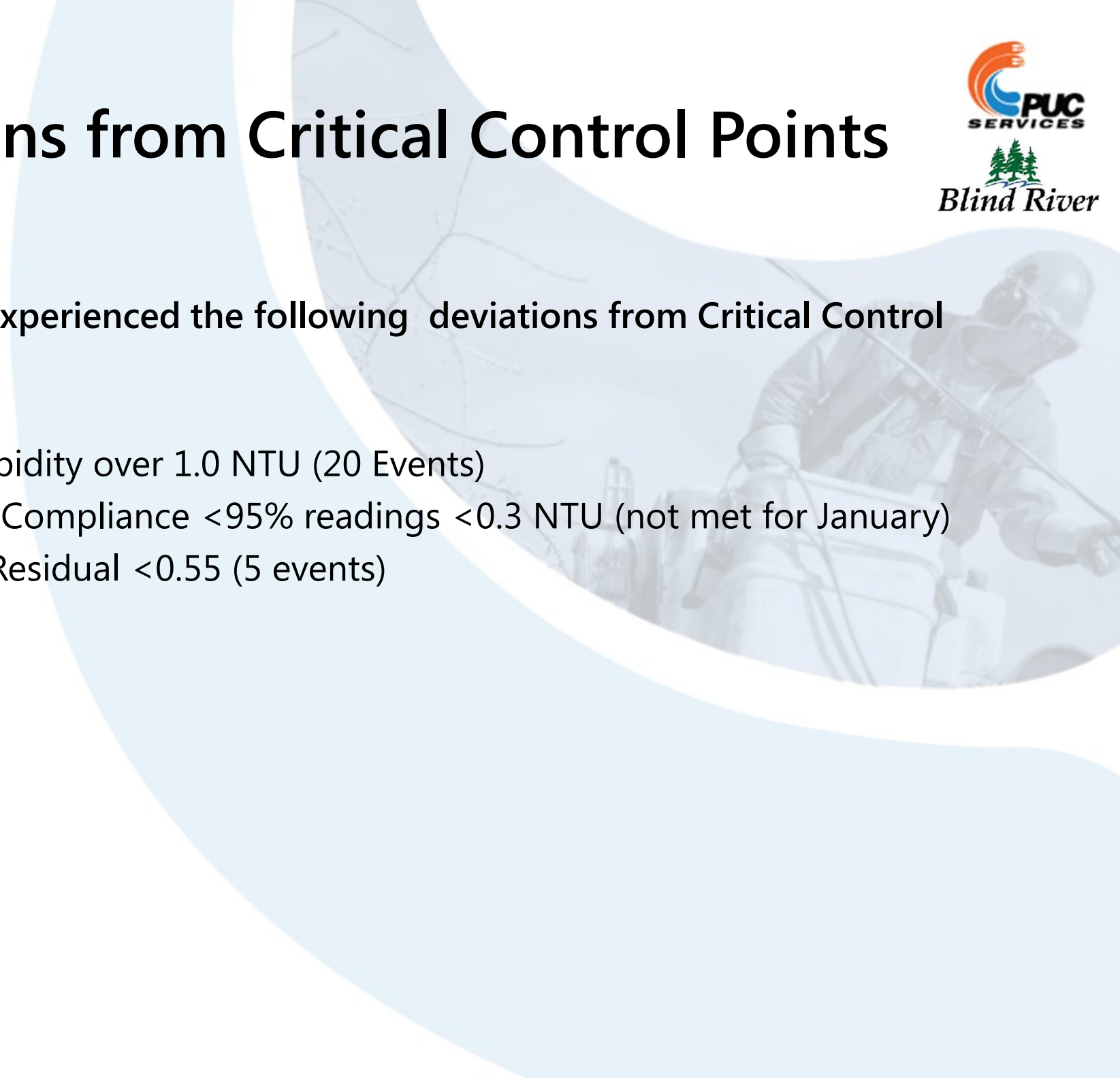


Deviations from Critical Control Points



Blind River DWS experienced the following deviations from Critical Control Point limits:

1. High Filter Turbidity over 1.0 NTU (20 Events)
2. Monthly Filter Compliance <95% readings <0.3 NTU (not met for January)
3. Low Chlorine Residual <0.55 (5 events)





Efficacy of the Risk Assessment



The annual Risk Assessment review was conducted on September 26, 2019:

Each identified hazard was reviewed with evaluation for likelihood, consequence, and detectability, as well as control measures to mitigate or provide control of the hazards.

Follow-up actions required:

- Continued well rehabilitation program (alternate supply source)
- Backflow program or policy to be developed
- Dead end flushing program to be developed



Results of Audits (Internal & External)



An internal audit was conducted on October 8, 2019 involving staff.
Two minor non-conformances were identified.

Element 17

- Handheld colorimeters calibrations noted to be passed due date - standards purchased to have on site, instead of borrowing from SSM
- Tracking of completed PMs not kept up to date – excel schedules created to implement and track progress throughout month, quarter, year to ensure completion of task and documentation



Results of Audits (Internal & External) cont...



An external “systems audit” was held on September 23, 2019 by SAI Global – Rod Seabrook.
3 minor non-conformances were identified:

Element 14 – Infrastructure Review procedure does not state that there is a consideration of the outcomes of the risk assessment - policy was updated

Element 15 – Operational Plan does not document a long-term forecast of major infrastructure maintenance, rehabilitation and renewal activities - historical equipment listing added to Operational Plan as a QMS document

Element 21 – Procedure does not refer to a process to consider applicable best management practices or a process for identifying and implementing preventive actions to eliminate the occurrence of potential non-conformities
Preventative actions log created and used to track opportunities for improvement



Results of Audits (Internal & External) cont...



An external “re-accreditation audit” was held on-site November 5, 2019 by SAI Global – Rod Seabrook. One minor non-conformance was identified.

Element 8 – Alarm set points reviewed in SCADA were not always the same as those documented in the Operational Plan - ranges of values for alarms added to table set-points where seasonal changes may be acceptable

Certificate of Accreditation issued for next 3-year term – Expiring February 2023

PM_SAI_1_Up_Eng



CERTIFICATE OF ACCREDITATION

This is to certify that the following operating authority:

PUC Services Inc.
The Corporation of the Town of Blind River
47 Murray St., Blind River, Ontario, P0R 1B0, Canada

Refer to Attachment to Certificate of Accreditation dated December 11, 2019 for additional drinking water systems operates a

Quality Management System
which conforms with the requirements of
DRINKING WATER QUALITY MANAGEMENT STANDARD VERSION 2 - 2017
for the following scope of accreditation

Full Scope - Entire DWQMS

Certificate No.: CERT-0131080	Original Certification Date: February 27, 2013
File No.: 1631983	Certification Effective Date: December 10, 2019
Issue Date: December 11, 2019	Certification Expiry Date: February 16, 2023

Heather Mahon

Heather Mahon
Global Head of Technical Services
SAI Global Assurance



DWQMS 2017

Accredited by:
SAI Global Limited (SAI Global), 20 Carlton Court, Suite 201, Toronto, Ontario M5H 1B8, Canada. This registration is subject to the SAI Global Terms and Conditions of Certification. Withdrawal due to non-compliance will be assessed on a case-by-case basis. SAI Global accepts no responsibility for any power outage. The certificate remains the property of SAI Global and must be returned to them upon request.
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INFORM. INSPIRE. IMPROVE.



Results of relevant emergency response testing



2019-06-21 Blind River – Transmission Line Failure

Discussion of transmission line failure between the well supply and the WTP or if distribution suffered a large break causing interruption of service to a large area.

Staff felt confident that the repair for a transmission break would be completed in sufficient time before storage supply is exhausted.

PUC also has inventory of temporary main (6" lay flat hose that has been used in SSM and lent to other communities.

PUC to join ONwarn in 2020 to assist in emergency response preparedness.



Operational Performance

The WTP and Well Supply systems operated well within compliance limits.

Zero non-compliances from the last Ministry of Environment, Conservation & Parks inspection

- Final Inspection rating of 100%.

Operational Difficulties encountered in 2019:

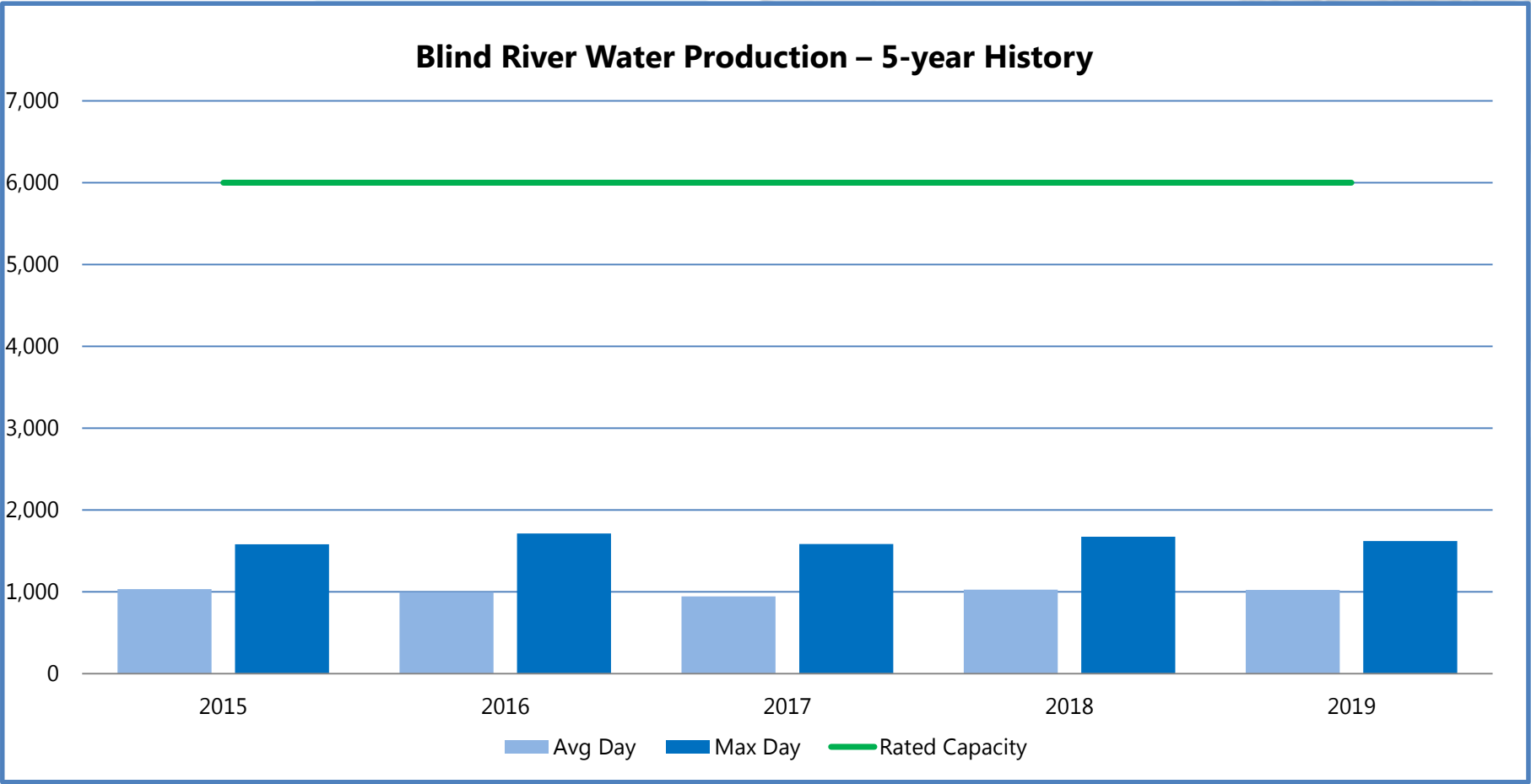
Source supply availability during main breaks in January

Well rehabilitation was completed in the summer months for wells 5, 6 & 7



Raw water supply and drinking quality trends

- Raw water quality variances were normal seasonal fluctuations
- Flows over last 5-year period are consistent





Follow-up Action Items from previous Management Reviews



Identified concerns carried forward from previous years:

- Backflow prevention program
- Dual media filters anthracite top-up
- THM results stability
- Rapid mixer redundancy

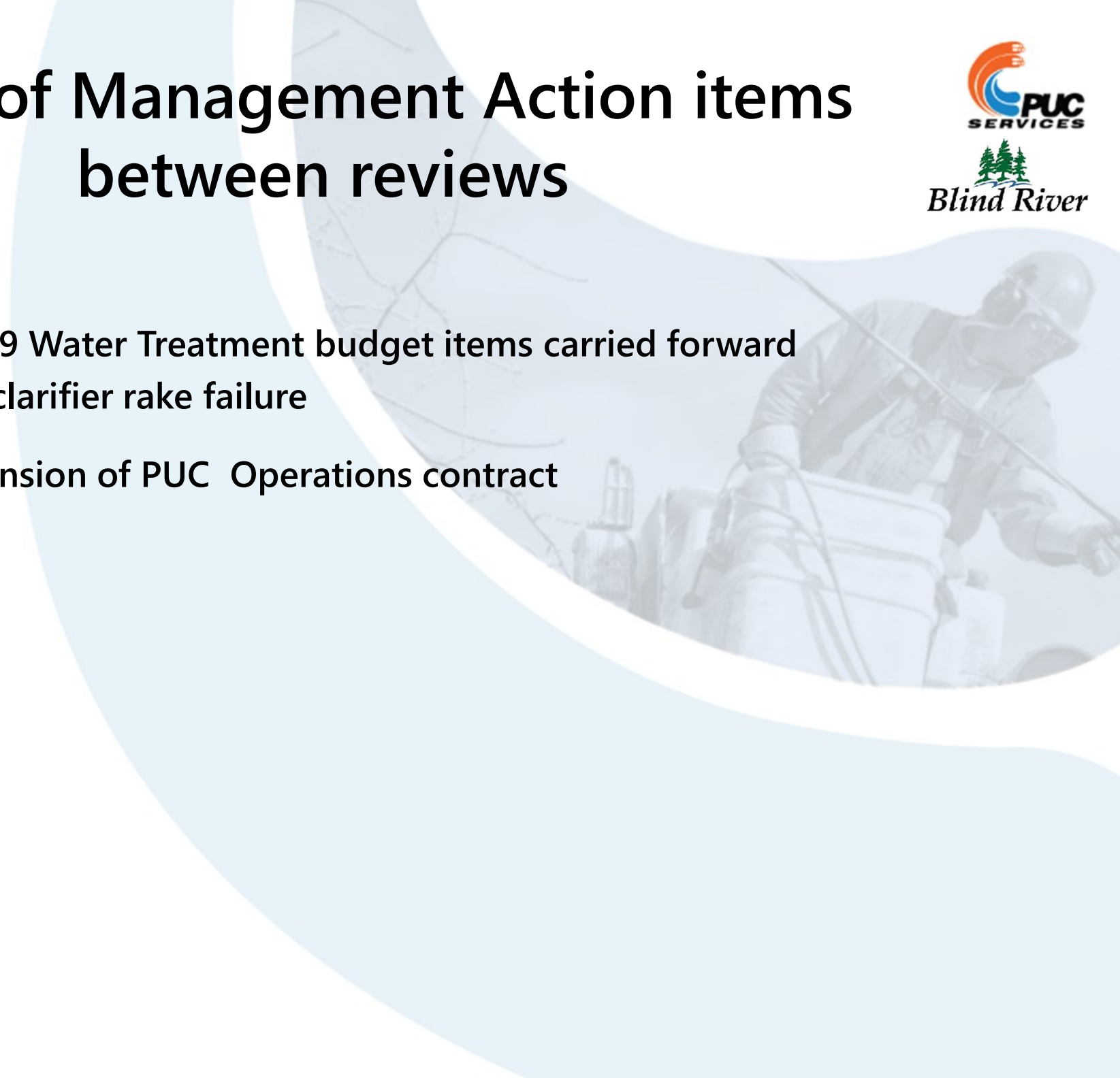




Status of Management Action items between reviews



- Approved 2019 Water Treatment budget items carried forward due to WPCP clarifier rake failure
- One-year extension of PUC Operations contract





Changes that could affect the QMS



Auditor or inspection requirements & scheduling

Regulatory changes – no changes in 2019
HAA reporting in effect for Jan 1, 2020

Quarter	2019 – Q1	2020 Q1	MAC
THM RAA	67.6 ug/L	65.7 ug/L	100 ug/L
HAA RAA	51.6 ug/L	50.5 ug/L	80 ug/L



Summary of Consumer Feedback

Water Quality Issues Tracking

2019 – 6 Calls

- Pressure Issues (Mary Place, Oak Road) - 4 Events
- Coloured Water
- Chlorine Residual



Resources needed to maintain the QMS



Review of departmental needs to maintain QMS

- Adequate resources are in place





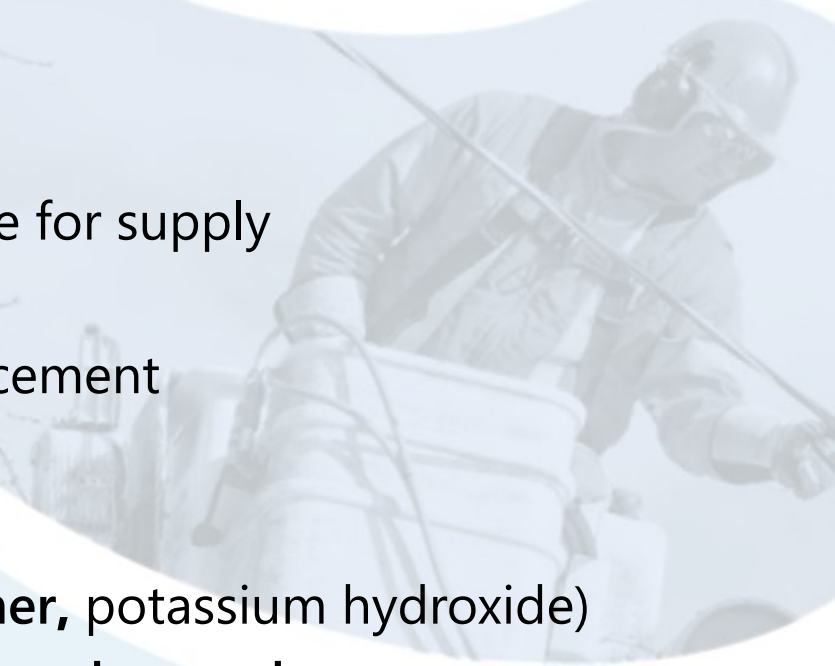
Results of the Infrastructure Review



Capital and OM&A budgets have been set for 2020

Priority Recommendations:

- Continued well rehab, investigate alternate source for supply
- WTP Roof leaks repair
- **Filter media anthracite** top-up, future GAC replacement
- SCADA Computers – Server, Client & Spare
- **Filter Head Loss Meter**
- Chemical Pumps replacements (coagulant, **polymer**, potassium hydroxide)
- Assessment of Fire System backflow – **BFP tested and passed**
- Primary Disinfection Monitoring (chlorine analyzers for clearwell)
- Rapid mixer alternative options, bypass piping for maintenance
- GIS Updates
- Consider Tower Inspection





Operational Plan currency, content and updates



Continual improvements are made on an on-going basis:

- 67 modifications were made to the Blind River Operational Plan documents in 2019.





Summary of Staff Suggestions

Suggestions are made and implemented regularly by staff through DWQMS management system

- Department staff participate in internal and external audits as well as annual reviews to implement improvements to the Operational Plan



New Business

- Other Issues that may impact the QMS



- No items identified

