

**Infrastructure Review Summary**

Revision #03 Document #QMS FORM 026

<b>The Corporation of the Town of Pelham Drinking Water Distribution System</b>	
<b>Meeting Location:</b>	Tice Road Operations Centre
<b>Date / Time:</b>	11 April 2024, 10:00 – 11:00am
<b>Attendees:</b>	Jason Marr (DPW, <i>also representing Manager of Engineering</i> ), Ryan Cook (MPW), Dave Vaccaro (SWW)
<b>Minutes Recorded by:</b>	Sandra Tavares (Facilitator, <i>Tavares Group Consulting Inc.</i> )
<b>Minutes to be distributed to:</b>	DPW, MPW, SWW

<b>Infrastructure Review Meeting Minutes</b>	
<b>Details / Discussion Points / Issues Identified</b>	<b>Recommendation (for budget ask) / Action Items (tracked via QMS LIST 006)</b>
Outcomes of the <b>Risk Assessment</b> (check what applies): <input checked="" type="checkbox"/> <b>12-month annual</b> <input type="checkbox"/> 24-month annual <input type="checkbox"/> 36-month reassess	No additional recommendations or action items.
<ul style="list-style-type: none"> <li>Reviewed, discussed and confirmed the 11-Apr-2024 Risk Assessment Meeting results including Town of Pelham's <b>Critical Control Point (CCP), loss of chlorine residual</b>, and associated Critical Control Limit (CCL = 0.20 mg/L after routine flush) including processes in place to maintain (i.e., Spring/Fall and watermain flushing confirmed by SWW) and monitoring through weekly distribution system Cl<sub>2</sub> sampling, including recent 2024 tracking as part of <b>2023-OFI-34</b> which identified Circle K drop in chlorine residual, and additional discussion within QMS LIST 001 'Risk Assessment History' tab to finalise the <b>12-month Risk Review</b>.</li> </ul>	
<b>Watermain</b> – servicing, replacement, monitoring, operating & capital needs, other	<b>MPW</b> to ensure 2025 Effingham PRV replacement is included in 2024 capital budget planning.
<ul style="list-style-type: none"> <li>Discussed the <a href="#">2024-2029 Approved Water [Capital] Budget</a> which led to confirmation of:               <ul style="list-style-type: none"> <li><b>PRV maintenance</b> in operational budget with a potential contractor change</li> <li>Annual <b>W02-23</b> \$30K fittings replacement now part of operating budgets</li> </ul> </li> </ul>	

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<ul style="list-style-type: none"> <li>- Cast iron replacement projects (e.g., <b>W01-23</b> Line Avenue 2024 referral and Niagara Region contract watermain addition, grant-funded <b>WTR-01-24</b> and <b>-02-24</b>, 2027 <b>Emmett St.</b> is now scheduled for 2028/2029, <b>College St.</b> is not yet in cue)</li> <li>- Original 2030 cast iron replacement timeline has been extended to 2034, as per DPW</li> <li>• Nothing out of the ordinary is identified within <a href="#">2024-2029 Water [and Wastewater] Long Range Financial Plan Pelham</a>, as per MPW</li> <li>• <b>10-Year Capital Plan Review</b> going to Council 15-May-2024 as per MPW and to be available Jun-2024 as per DPW</li> <li>• <b>No unplanned road reconstruction needs</b></li> <li>• <b>Break histories</b> to date as per '<a href="#">Current Combined Water Ops 2015 onward spreadsheet</a>' 'Watermain Break Summary' tab (with clarification from SWW):</li> </ul> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr style="background-color: #cccccc;"> <th style="text-align: center;">Year</th> <th style="text-align: center;"># of Breaks</th> <th style="text-align: center;">Comments</th> </tr> </thead> <tbody> <tr><td style="text-align: center;">2018</td><td style="text-align: center;">9</td><td></td></tr> <tr><td style="text-align: center;">2019</td><td style="text-align: center;">13</td><td>5 contractor- and 2 ageing-related, 5 cast iron</td></tr> <tr><td style="text-align: center;">2020</td><td style="text-align: center;">12</td><td>6 contractor-related, 6 cast iron</td></tr> <tr><td style="text-align: center;">2021</td><td style="text-align: center;">2</td><td>due to age / cast iron</td></tr> <tr><td style="text-align: center;">2022</td><td style="text-align: center;">4</td><td></td></tr> <tr><td style="text-align: center;">2023</td><td style="text-align: center;">0</td><td></td></tr> <tr><td style="text-align: center;">2024 YTD</td><td style="text-align: center;">1</td><td></td></tr> </tbody> </table> <p style="margin-top: 10px; font-size: small;">*replacement process is dependent on funding/available reserves, wastewater, and roads needs</p>	Year	# of Breaks	Comments	2018	9		2019	13	5 contractor- and 2 ageing-related, 5 cast iron	2020	12	6 contractor-related, 6 cast iron	2021	2	due to age / cast iron	2022	4		2023	0		2024 YTD	1		
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<p><b>Hydrants</b> – monitoring, servicing, operating &amp; capital needs, other</p> <p>2023 Hydrants and Q3 Valves with Management Review Action <b>2020-AI-02</b> to redefine valves (mostly as one quadrant done annually)/ hydrants quadrants map in progress is now <b>COMPLETE</b> as of 7-Dec-2023. <b>2022-OFI-25</b> to ensure all valves have been addressed</p>	<p>No additional recommendations or action items.</p>																								

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as part of the maintenance program remains <b>OPEN</b> with some valves requiring to be addressed by SWW.	
<b>Main valves</b> – monitoring, servicing, operating & capital needs, other	
<ul style="list-style-type: none"> <li>• <a href="#">'Current Combined Water Ops 2015 onward spreadsheet'</a> 'Maintenance Activities' tab identifies <b>valve maintenance</b> taking place as above with all quadrants exercised and maintained as per SWW</li> <li>• annual hydrant maintenance (including flushing, greasing, repair if needed) is also completed in 4 Quadrants although in one year (Spring to Fall) and will be starting soon with QMS [Hydrants] LIST 003 to be used as it was recently updated as part of 2023 Internal Audit <b>2023-OFI-33 iii (OPEN)</b>.</li> <li>• Semi-annual dead end blow off flushing is completed in the Spring and Fall with the latest revision of Dead-End Blow-Off Flushing QMS FORM 001 to be used also as part of 2023 Internal Audit <b>OPEN 2023-OFI-33 iv</b></li> </ul>	<b>2023-AI-05</b> to establish PRV maintenance budget and timeline is now <b>COMPLETE</b> with 'QMS LIST 015 Pressure Reducing Valve Inventory - 2020-' and SOP 022 in place as of 17-Oct-2023 and the former documenting maintenance some of which took place 11-10-2023
<b>Other appurtenances</b> – operating & capital budget needs, other	
<ul style="list-style-type: none"> <li>• <b>Bulk Station</b> \$60K replacement and potential for a new location still not a priority as per SWW</li> <li>• <b>Water meter program</b> based on replacement upon request by Water Billing Clerk with data maintained by Corporate Services has no 2034 capital re-evaluation update</li> </ul>	No additional recommendations or action items.
<b>Inventory and Tools</b> – operating & capital needs, other	
<ul style="list-style-type: none"> <li>• No additional requirements since 2 <b>Colorimeters</b> (4 in total) were replaced in 2019</li> </ul>	<b>2023-AI-06</b> to document Hydrant Flow Tester process (e.g., used every 10 years?) either in existing (e.g., QMS SOP 002, O&M, QMS PROC 017) or new procedure and conduct Operator training has been rescheduled by MPW to <b>31-Dec-2024</b> (from 30-Jun-2023) and <b>assigned to SWW</b>

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<b>Software / hardware</b> – capital needs, other																																																												
<ul style="list-style-type: none"> <li><b>Operator software tablets Action (2020-OFI-11)</b> is still rescheduled for 2024 with IT support and Public requests as priority and maintenance activities following</li> </ul>																																																												
<b>Pumping Station</b>																																																												
<ul style="list-style-type: none"> <li>Region is moving forward with the Water Tower which will obsolete the pumping station (related to Risk Assessment Outcomes #s 1 and 2); refer to <b>OPEN 2020-OFI-05 MECP Inspection Recommendation</b> for updated details</li> </ul>	No additional recommendations or action items.																																																											
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The number of Operators continues to be OK until 2025 when work is required on the system as per KPMG report.	No additional recommendations or action items.																																																											
<b>Water Quality Complaints</b>																																																												
Annual summary in 'Complaint Summary' tab of ' <a href="#">Current Combined Water Ops 2015 onward spreadsheet</a> ' was reviewed. Previous increase in odour complaints in 2021 (6 vs. 4 reported during Infrastructure Review and now 1 as per Current Combined) was discussed and 1 was noted as regulatory. Odour to be tracked as part of new maintenance system.																																																												
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr style="background-color: #d3d3d3;"> <th style="width: 25%;">TYPE</th> <th>2016</th> <th>2017</th> <th>2018</th> <th>2019</th> <th>2020</th> <th>2021</th> <th>2022</th> <th>2023 YTD</th> <th>2024</th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td style="text-align: left; font-size: small;">Air Complaints / Year – tied to watermain breaks and colour</td> <td>3</td> <td>1</td> <td>1</td> <td>2</td> <td>2</td> <td>-</td> <td>-</td> <td>-</td> <td>1</td> <td>10</td> </tr> <tr> <td style="text-align: left; font-size: small;">Colour Complaints / Year – internal plumbing issues led to an increase in 2019 (e.g., rusty water tanks)</td> <td>4</td> <td>7</td> <td>3</td> <td>12</td> <td>3</td> <td>7</td> <td>2</td> <td>4</td> <td>2</td> <td>44</td> </tr> <tr> <td style="text-align: left; font-size: small;">Leaky Service Complaints / Year – water main replacement has reduced this number</td> <td>5</td> <td>22</td> <td>3</td> <td>2</td> <td>5</td> <td>7</td> <td>-</td> <td>4</td> <td>1</td> <td>49</td> </tr> <tr> <td style="text-align: left; font-size: small;">Pressure Complaints / Year – moves from one area to another (LOW OR HIGH)</td> <td>9</td> <td>13</td> <td>5</td> <td>8</td> <td>7</td> <td>7</td> <td>5</td> <td>4</td> <td>1</td> <td>59</td> </tr> </tbody> </table>	TYPE	2016	2017	2018	2019	2020	2021	2022	2023 YTD	2024	TOTAL	Air Complaints / Year – tied to watermain breaks and colour	3	1	1	2	2	-	-	-	1	10	Colour Complaints / Year – internal plumbing issues led to an increase in 2019 (e.g., rusty water tanks)	4	7	3	12	3	7	2	4	2	44	Leaky Service Complaints / Year – water main replacement has reduced this number	5	22	3	2	5	7	-	4	1	49	Pressure Complaints / Year – moves from one area to another (LOW OR HIGH)	9	13	5	8	7	7	5	4	1	59	No additional recommendations or action items.				
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<b>Odour Complaints / Year</b>	1	2	1	2	1	1	1	1	-	10	
<b>TOTAL</b>	22	45	13	26	18	22	8	13	5	172	
<b>Best Management Practices (BMPs)</b>											No additional recommendations or action items.
<ul style="list-style-type: none"> <li>• <b>QMS LIST 006 Corrective Action List</b> <ul style="list-style-type: none"> <li>- <b>OPEN 2021-BMP-01</b> (GPS equipment for valves scheduled to 2025) and</li> <li>- <b>COMPLETE 2023-BMP-02</b> MECP inspection operator free chlorine residual logs and use of wet tap documentation of Operators and use of watermain commissioning form verification at Nov-2023 Internal Audit</li> </ul> </li> <li>• There are no additional Element 14 actions aside from those listed here, <b>OPEN 2020-OFI-11</b> related to software tablets (2025) and <b>COMPLETE 2022-OFI-24</b> confirmed during 2023 Review of Infrastructure in relation to updated Financial Plan (2024)</li> </ul>											