

CHANGE LOG - ASSESSMENT REPORTS

December 15, 2021

Table 1: CHANGE LOG - Section 36 Updates for the Halton Region Assessment Report

No.	Nature of the Change (Proposed Amendment)	Sections (page numbers are approximate)
1.	Change to document version number, description, date to reflect a S. 36 update	After the cover page; Appendix A
2.	The Executive Summary is revised to indicate that the document is updated from time to time, including per Section 36 of the Clean Water Act (addresses pre-consultation comment from City of Hamilton)	Executive Summary "Follow up" section
3.	Reference to Technical Rules 2009 updated to Technical Rules 2017	Page 5, 295, bibliography
4.	Change MOECC to MECP where appropriate, and Environment Canada to Environment and Climate Change Canada	Throughout
5.	Populations and population densities by watershed/ sub-watershed in Table 2.3 updated based on 2016 Census (addresses pre-consultation comment from City of Hamilton)	Section 2.2.2, Table 2.3: pages 38-40.
6.	Land use section minor updates based on new land use map information	Section 2.2.3, page 41
7.	Updated PPS and Greenbelt Plan policy numbers and dates	Section 2.2.1, page 30-35
8.	Updated Table 2.1 with the most recent population data	Section 2, page 10
9.	Description on Hamilton Harbour Area of Concern is updated	Section 3.11, page 74-75, Section 4 page 97
10.	Permit To Take Water (PTTW) information was updated per S. 36 work	Tables 4.3 and 4.4 pages 110-112
11.	Updated Surface Water Quantity using most recent data and interpretation	Section 4.2.1 page 82-84
12.	Adding charts and editing Surface Water Quality section	Section 4.2.2 page 86-88
13.	Minor updates to sections 4.3 Groundwater Monitoring	Section 4.3 page 97
14.	Removal of sodium and chloride references from the circumstances related to on-site sewage systems and holding tanks, per the 2017 Technical Rules	Section 4.3 page 109 Section 7.1.2 page 248-251
15.	Updated Groundwater Levels and Flow - minor addition to groundwater flow characterization	Section 4.3.1 page 98-99
16.	Updated section 4.3.2 Water quality, added nitrate and chloride concentration charts (4.4 and 4.5) and edited text	Section 4.3.2 page 99-101
17.	Updated section 4.5 text and Table 4.1 using September 2020 PTTW database	Section 4.5 page 104-105
18.	The "establishment and operation of a liquid hydrocarbon pipeline" added as a prescribed threat (and removed as a local threat) per the 2017 Technical Rules. Threats were assessed per the Table of Drinking Water Threats	Section 6.1: 178, 181-182. Section 7.2: 252, 254, 270-272, 279-280, 298
19.	Lake Ontario IPZ-2 re-delineation and vulnerability reassessment of IPZ-1 and IPZ-2	Section 6.1: 182 – 191, 195 - 198

No.	Nature of the Change (Proposed Amendment)	Sections (page numbers are approximate)
20.	Corrected the value range (# of storm outfalls) to read "(0-3)" instead of "(0-34)" (addresses pre-consultation comment from MECP)	Section 6.1.4. Table 6.6. Page 175
21.	Technical Study: Lake Ontario intake protection zone re-delineation and vulnerability reassessment	This is a separate technical study
22.	Transport pathway assessment information and in wellhead protection areas per S. 36 work updated in Section 6.2	Section 6.2, page 194-197
23.	Technical Study: Transport pathways assessment in wellhead protection areas	This is a separate technical study
24.	Data from 2017-2021 annual reports for the drinking water systems were reviewed and water quality analysis summaries added for Freelon and Carlisle well supply systems (addresses pre-consultation comment from City of Hamilton)	Section 7.1.2: page 203-205.
25.	Removal of references to vulnerability scoring in significant groundwater recharge areas (SGRAs), per the 2017 Technical Rules	Section 7.3: Table 7.1 page 225, Section 7.5: page 230, Table 7.5 page 232.
26.	Updated Section 7.3 Conditions in terms of criteria (using 2017 Technical Rules), sources of data and conditions assessment results	Section 7.3 page 222-224
27.	Table 7.2 updated with the most recent threat count	Section 7.4.1, Table 7.2 page 226-227
28.	Table 8.2 updated with the most recent threat count	Section 8.4 page 238
29.	Updated Appendix B.1 with the newest data	Appendix B.1 page 348
30.	HYDAT Station summary table and hydrographs updated/ replaced with the most current data	Appendix B3 page 350-362
31.	Groundwater Quality – PGMN Wells was updated with the most recent available data	Appendix B8 page 397 - 401
32.	Groundwater Monitoring Network – PGMN Wells table updated	Appendix B6 page 383
33.	Updated Appendix B.4 Surface Water Quality	Appendix B.4, page 363-380
34.	Groundwater Level data hydrographs updated up to 2020	Appendix B.7 page 385-395
35.	Municipal Raw Water Quality update with the most recent data for Halton Region systems	Appendix B.9 page 402- 409
36.	Figures 6-1 to 6-5 updated to include the IPZ-1 vulnerability scores (addresses pre-consultation comment from MECP)	Appendix H

Table 2: Changes to the Halton Region Assessment Report from **Early Engagement in summer 2021 with Ministry of the Environment, Conservation and Parks (MECP) and others**

No.	Nature of the Change (Proposed Amendment)	Sections (page numbers are approximate)
1	Updated threat count for the Freelon municipal system based on County of Wellington and the City of Hamilton staff's preliminary verification	Table 7.2 and Table 8.2, page 227 and 239, respectively
2	Corrected Burlington intakes depths to 5 meters from water surface based on Stantec Consulting Ltd. 2008 technical studies and confirmed by Halton Region water treatment plant staff in August 2021	Section 4.5.1 page 106; Table 4.3 page 110, Table 6.3 page 169 and separate Technical Study
3	Replaced Halton OP write-up with text provided by Halton Region	Section 2.2.1, page 32
4	Replaced population distribution and density write-up with text provided by Halton Region	Section 2.2.2, page 34
5	Replaced a paragraph with text provided by Halton Region with regards to new development	Section 2.2.3, page 41
6	Updated estimated number of users in Table 4.2 based on the feedback from Halton Region	Table 4.2, page 108
7	Minor edits to text based on feedback from Halton Region	Section 4.5.1, page 110
8	Text edits on municipal wastewater treatment plants based on feedback provided by Halton Region	Section 4.6.1, page 114
9	Table 4.5 updates on municipal wastewater treatment plants based on feedback from Halton Region	Table 4.5, page 115
10	Lake Ontario vulnerability reassessment of IPZ-1 and IPZ-2 to address MECP early engagement comments and Technical Study: Lake Ontario intake protection zone re-delineation and vulnerability reassessment	Section 6.1: page 165-177, Table 7.2 and separate Technical Study
11	Description on DNAPLs enhanced and list of examples corrected from feedback from Wellington Source Water Protection	Section 7.2.1: page 218
12	Updated general information on biosolids treatment in Halton and Hamilton from feedback from Halton Region and City of Hamilton	Section 7, threat: NASM, page 215

Table 3: CHANGE LOG - Section 36 Updates for the Hamilton Region Assessment Report

No.	Nature of the Change (Proposed Amendment)	Sections (page numbers are approximate)
1.	Change to document version number, description, date to reflect a S. 36 update	After the cover page, Appendix A
2.	The Executive Summary is revised to indicate that the document is updated from time to time, including per Section 36 of the Clean Water Act (addresses pre-consultation comment from City of Hamilton)	Executive Summary "Follow up" section
3.	Change MOECC to MECP where appropriate and Environment Canada to Environment and Climate Change Canada	Throughout
4.	Reference to Technical Rules 2009 updated to Technical Rules 2017	Section 1.2 page 4, Section 8.2 page 176, bibliography, Appendix A page 193
5.	Table 2.1 updated with 2016 Census data. An explanatory note is added near the table to indicate the actual population (Woodward system) and numbers of homes (Greensville system) served, not cut to the source protection area boundary (addresses pre-consultation comment from City of Hamilton)	Section 2, page 10-11
6.	Changed PPS and Greenbelt Plan policy numbers and dates	Section 2.2.1 page 29
7.	Population served by Greensville well supply system is updated based on information from the Annual Drinking Water report (2020). City of Hamilton growth forecasts updated (addresses pre-consultation comments from City of Hamilton)	Section 2.2.2, page 36
8.	Populations and population densities by watershed/ sub-watershed in Table 2.3 updated based on 2016 Census (addresses pre-consultation comment from City of Hamilton)	Section 2.2.2, Table 2.3: pages 39-41.
9.	Description of Randle reef remedial actions are updated (addresses pre-consultation comment from City of Hamilton)	Page 64, Section 3.7.2
10.	Updated Section 4.2.1 Surface Water Quantity using most recent data and interpretation	Section 4.2.1 page 57-59
11.	Adding charts and text to Section 4.2.2 Surface Water Quality	Section 4.2.2 page 60-63
12.	Text on microcystin monitoring for the Woodward source water is updated (addresses pre-consultation comment from City of Hamilton)	Section 4.2.2. page 85
13.	Minor updates to Section 4.3 Groundwater Monitoring	Section 4.3 page 71
14.	Removal of sodium and chloride references from the circumstances related to on-site sewage systems and holding tanks, per the 2017 Technical Rules	Section 4.3.2 page 74, Section 7.1 page 152
15.	Updated section 4.3.2 Groundwater quality, added figures 4.6 and 4.7 and edited text	Section 4.3.2 page 74-75
16.	Text updated to include information on City of Hamilton's network of monitoring wells sampled every other year through a collaborative program with Hamilton CA (addresses pre-consultation comment from City of Hamilton)	Section 4.3.2. Page 92

No.	Nature of the Change (Proposed Amendment)	Sections (page numbers are approximate)
17.	Text on Chart 4.5 updated to identify the shallow well (addresses pre-consultation comment from City of Hamilton)	Section 4.3.2 page 93
18.	Updated section 4.5 Water Use with the 2020 PTTW data	Section 4.5 page 77
19.	Outdated information on Ancaster wells is removed (addresses pre-consultation comment from City of Hamilton)	Section 4.5 page 98
20.	Text updated to identify the population served by Woodward Drinking Water Subsystem and the homes served by the Greensville municipal system. A note is added at the bottom of Table 4.3: capacity and users are based on the drinking water system, not source protection area boundaries. An outdated sentence on intake exploration is removed (addresses pre-consultation comments from City of Hamilton)	Section 4.5.1 page 99-101.
21.	Municipal wastewater treatment plant daily average flow is updated to 2020 data (addresses pre-consultation comment from City of Hamilton)	Section 4.6, Table 4.6. Page 107.
22.	The “establishment and operation of a liquid hydrocarbon pipeline” added as a prescribed threat (and removed as a local threat) per the 2017 Technical Rules. Threats were assessed per the Table of Drinking Water Threats	Section 6.1: 130-133; Section 7.2: 153-169, 171
23.	Transport pathway assessment information updated in Section 6.2	Section 6.2 page 133
24.	Updated Section 7.3 Conditions in terms of criteria (using 2017 Technical Rules) and sources of data	Section 6.3 page 169-170
25.	Transport pathways assessment in wellhead protection areas per S. 36 work	Section 6.2.3: 144-146
26.	Technical Study: Transport pathways assessment in wellhead protection areas	This is a separate technical study provided.
27.	Text is edited to indicate that yearly updates from field verification are provided in annual progress reports. The assessment report provides potential significant threat counts (addresses pre-consultation comments from City of Hamilton)	Section 7.2.1. Page 200. Section 7.4.1. Table 7.1. Page 220.
28.	Woodward Wastewater Treatment Plant daily average flow is updated to 2020 data (addresses pre-consultation comment from City of Hamilton)	Section 7.2.3. Page 207.
29.	Table 7.1 updated with the most recent threat count	Section 7.4.1 page 221
30.	Removal of references to vulnerability scoring in significant groundwater recharge areas (SGRAs), per the 2017 Technical Rules	Section 7.5: Table 7.3 page 172
31.	Typo corrected using “x” marks (addresses pre-consultation comment from City of Hamilton)	Section 7.5: Table 7.3 Page 222
32.	Appendix B.1 edits	Appendix B.1 page 212
33.	HYDAT station summary table and hydrographs updated with the latest data.	Appendix B.3 page 214-2026
34.	PGMN groundwater level hydrographs updated with the most recent available data.	Appendix B.7 page 239-247

No.	Nature of the Change (Proposed Amendment)	Sections (page numbers are approximate)
35.	Groundwater Quality – PGMN Wells updated with the most recent data available.	Appendix B.8 page 248-249
36.	Municipal Raw Water Quality updated	Appendix B.9 page 250
37.	PWQMN Surface Water Quality table update	Appendix B.4 page 227-236

Table 4: Changes to the Hamilton Region Assessment Report from **Early Engagement in summer 2021 with Ministry of the Environment, Conservation and Parks (MECP) and others**

No.	Nature of the Change (Proposed Amendment)	Sections (page numbers are approximate)
1	Lake Ontario vulnerability reassessment of IPZ-1 and IPZ-2 to address MECP early engagement comments and Technical Study: Lake Ontario intake protection zone re-delineation and vulnerability reassessment	Section 6.1: page 159 – 168; Table 7.3
2	Description on DNAPLs enhanced and list of examples corrected from feedback from Wellington Source Water Protection	Section 7.2: page 214
3	Updated general information on biosolids treatment in Hamilton from feedback from City of Hamilton	Section 7, threat: NASM, page 210