

## **SUMMARY OF EXPRESS TERMS**

These amendments are necessary for the Department to maintain primacy for delivery, oversight and management of New York State's public drinking water supply program and to ensure consistency with the Revised Total Coliform Rule (RTCR) promulgated by the United States Environmental Protection Agency (EPA).

The RTCR builds on the Total Coliform Rule (TCR) by requiring all public water systems (PWS) to assess indicators of coliform contamination, and to take corrective action when necessary. Under these amendments, there is no longer a Maximum Contaminant Level (MCL) for total coliform, and follow up sampling requirements for total coliform-positive (TC+) samples have been reduced. Three repeat samples following a routine TC+ sample are now required, instead of four. These amendments also require a PWS that is vulnerable to microbial contamination to conduct an assessment to determine why it is vulnerable, and to take corrective action. There are two levels of assessments (designated Level 1 and Level 2) relating to the severity or frequency of the vulnerability to contamination. These assessments must be conducted within 30 days by the PWS or by the Local Health Department (LHD), depending on the level of assessment.

A technical change is also being made to Subpart 7-5 of the State Sanitary Code to make Subpart 7-5 consistent with the changes regarding the RTCR.

Pursuant to the authority vested in the Public Health and Health Planning Council and the Commissioner of Health by Section 225 of the Public Health Law, Subpart 5-1 and Subpart 7-5 of Title 10 (Health) of the Official Compilation of Codes, Rules and Regulations of the State of New York is amended, to be effective upon publication of a Notice of Adoption in the New York State Register, as follows:

Subdivisions (j)-(ba) of section 5-1.1 are re-lettered (k)-(bb), and a new subdivision (j) is added to read as follows:

(j) Clean compliance history means a record of no MCL violations for *E. coli*, no total coliform or *E. coli* monitoring violations, no treatment technique trigger exceedances, and no treatment technique violations under section 5-1.52 Table 6 of this Subpart.

Subdivisions (bb)-(cd) of section 5-1.1 are re-lettered (be)-(cg), and new subdivisions (bc) and (bd) are added to read as follows:

(bc) Level 1 assessment means an evaluation to identify the possible presence of sanitary defects, defects in distribution system coliform monitoring practices, and, when possible, the likely reason that the system triggered the assessment.

(bd) Level 2 assessment means an evaluation conducted by an individual approved by the State, to identify the possible presence of sanitary defects, defects in distribution system coliform

monitoring practices, and, when possible, the likely reason that the system triggered the assessment. A Level 2 assessment provides a more detailed examination of the system (including the system's monitoring and operational practices) than a Level 1 assessment, through the use of more comprehensive investigation and review of available information, additional internal and external resources, and other relevant practices.

Subdivision (ce) of section 5-1.1 is re-lettered (ci), and new subdivision (ch) is added to read as follows:

(ch) Sanitary defect means a defect that could provide a pathway of entry for microbial contamination into the distribution system or that is indicative of a failure or imminent failure in a barrier that is already in place.

Subdivisions (cf)-(di) of section 5-1.1 are re-lettered (ck)-(dn), and a new subdivision (cj) is added to read as follows:

(cj) Seasonal system means a non-community water system that is not operated as a public water system on a year-round basis and starts up and shuts down at the beginning and end of each operating season.

Section 5-1.25 is amended to read as follows:

5-1.25 Disinfection/Start-up of Facilities.

(a) No spring basin, collecting basin, well, infiltration gallery, water main, pumping station, standpipe or reservoir shall be placed in service following cleaning or repairs until it has been disinfected in a manner approved by the State.

(b) For each operational period, before serving water to the public, all seasonal systems must demonstrate completion of a State approved start-up procedure.

Section 5-1.30(c)(10) is amended to read as follows:

(10) The public water system must [comply with the maximum contaminant level for total coliform] not exceed a total coliform treatment technique trigger in accordance with section 5-1.52 of this Subpart in 11 months of the 12 previous months that the system served water to the public on an ongoing basis, unless the State determines that failure to meet this requirement was not caused by a deficiency in treatment of the source water.

Subdivision 5-1.30(d) is amended to read as follows:

(d) Notwithstanding anything to the contrary in sections 5-1.12, 5-1.23, 5-1.51 or 5-1.77 of this Subpart, if the public water system fails to comply with the treatment technique and/or the monitoring requirements of subdivisions (a), (b), (c) or (g) of this section, fails to install the filtration and/or disinfection treatment required by this section or fails to comply with the avoidance criteria requirements contained in subdivision (c) of this section, the system violates this Subpart and shall make State and public notification, including any required mandatory

health effects language. Pursuant to subdivision (c) of this section, if at any time the raw water turbidity exceeds five nephelometric turbidity units, the system shall consult with the State within 24 hours of learning of the exceedance. Based on this consultation, the State may determine that the exceedance constitutes a public health hazard, as found in section 5-1.1[(bw)](bz)(4) of this Subpart, which requires a Tier 1 notification.

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Section 5-1.52 Table 6, Table 11, Table 11B, and Table 13 are repealed and replaced as follows:

Table 6. Microbiological Contaminants Maximum Contaminant Level (MCL)/Treatment Technique Trigger (TTT)/Treatment Technique Violation (TTV) Determination

Contaminant/Trigger/ Violation	Sample Location	MCL or TTT or TTV	Performance Standard <sup>1</sup>	Determination of MCL/TTV and TTT
Total coliform	Distribution Sample Sites	TTT <sup>3</sup>	No positive sample <sup>4,6</sup>	A Level 1 TTT occurs at systems collecting 40 or more samples per month when more than 5.0 percent of the samples are total coliform positive.
		TTT <sup>3</sup>		A Level 1 TTT occurs at systems collecting less than 40 samples per month when two or more samples are total coliform positive.
		TTT <sup>3</sup>		A Level 1 TTT occurs at any system that fails to collect every required repeat sample after any single total coliform positive sample.
		TTT <sup>5</sup>		A Level 2 TTT occurs at any system that has a second Level 1 trigger within a rolling 12-month period, unless the State has determined a likely reason that the samples that caused the first Level 1 TTT were total coliform positive and has established that the system has corrected the problem.
<i>Escherichia coli (E. coli)</i>		MCL/TTT <sup>2,5</sup>	No positive sample <sup>4,6</sup>	An MCL violation and Level 2 TTT occurs when a total coliform sample is positive for <i>E. coli</i> and a repeat total coliform sample is positive.
		MCL/TTT <sup>2,5</sup>		An MCL violation and Level 2 TTT occurs when a total coliform sample is positive for total coliform but negative for <i>E. coli</i> and a repeat total coliform

		MCL/TTT <sup>2,5</sup>		sample is positive for <i>E. coli</i> or not analyzed for <i>E. coli</i> . An MCL violation occurs when a system fails to collect every required repeat sample after any <i>E.coli</i> positive routine sample.
Fecal indicator: <i>E. coli</i> , and/or enterococci, and/or coliphage	Untreated Water from a Ground Water Source	TTV <sup>2</sup>	No fecal indicator in samples collected from raw source water from a ground water source. <sup>7</sup>	A TTV occurs when a raw water sample is positive for the fecal indicator contaminant and system does not provide and document, through process compliance monitoring, 4-log virus treatment during peak flow at first customer. If repeat sampling of the raw water is directed by the State and all additional samples are negative for fecal indicator, there is no TTV. <sup>7</sup>
Other trigger or violation		TTV		A TTV occurs when a system exceeds a TTT and then fails to conduct the required assessment or corrective actions.
		TTV		A TTV occurs when a seasonal system fails to complete a State-approved start-up procedure prior to serving water to the public.

1. All samples collected in accordance with Table 11 footnotes 1 and 2 and Table 11B of this section and samples collected in accordance with subdivision 5-1.51(g) of this Subpart shall be included in determining compliance with the MCL, TTT, and/or TTV unless any of the samples have been invalidated by the State.
2. For notification purpose, an *E. coli* MCL violation is a public health hazard requiring Tier 1 notification. At a ground water system, Tier 1 notification is required after initial detection of *E. coli* or other fecal indicator in raw source water, if the system does not provide 4-log virus treatment and process compliance monitoring, even if not confirmed with additional sampling.
3. The system must complete a Level 1 assessment as soon as practical after exceeding any Level 1 TTT. The system must submit the completed Level 1 assessment form to the State within 30 days after the system learns that it has exceeded a trigger. Corrective actions shall be addressed in accordance with section 5-1.71(e) of this Subpart.

4. See Table 13 for public notification requirements.
5. A Level 2 assessment must be completed within 30 days after the system learns that it has exceeded a trigger. Corrective actions shall be addressed in accordance with section 5-1.71(e) of this Subpart.
6. If any total coliform or *E. coli* sample is positive, repeat samples must be collected in accordance with Table 11B of this section.
7. If raw water source sample is fecal indicator positive, the water system, in consultation with the State, may collect an additional 5 samples within 24 hours at each source that tested fecal indicator positive. If none of the additional samples are fecal indicator positive, then there is no TTV. Note that Tier 1 notification must be made after the initial raw water fecal indicator positive sample, even if it is not confirmed with additional sampling.

Table 11 Microbiological  
Minimum Monitoring Requirements (Refer to Table 11B following any positive samples) <sup>1,2,3,4</sup>

Contaminant	Type of Water System	Number of Routine Samples Based on Population			
		Population Served	Minimum Number of Samples per Month <sup>4</sup>	Population Served	Minimum Number of Samples per Month <sup>4</sup>
Total coliform in distribution system <sup>5</sup>	Community	Up to 1,000 <sup>6,7</sup>	1	59,001 to 70,000	70
		1,001 to 2,500	2	70,001 to 83,000	80
		2,501 to 3,300	3	83,001 to 96,000	90
		3,301 to 4,100	4	96,001 to 130,000	100
		4,101 to 4,900	5	130,001 to 220,000	120
		4,901 to 5,800	6	220,001 to 320,000	150
		5,801 to 6,700	7	320,001 to 450,000	180

	6,701 to 7,600	8	450,001 to 600,000	210
	7,601 to 8,500	9	600,001 to 780,000	240
	8,501 to 12,900	10	780,001 to 970,000	270
	12,901 to 17,200	15	970,001 to 1,230,000	300
	17,201 to 21,500	20	1,230,001 to 1,520,000	330
	21,501 to 25,000	25	1,520,001 to 1,850,000	360
	25,001 to 33,000	30	1,850,001 to 2,270,000	390
	33,001 to 41,000	40	2,270,001 to 3,020,000	420
	41,001 to 50,000	50	3,020,001 to 3,960,000	450
	50,001 to 59,000	60	3,960,001 or more	480
Noncommunity using surface water or groundwater directly influenced by surface water	All	Same as community		
Noncommunity using only groundwater not directly influenced by surface water <sup>9</sup>	≤1,000	Quarterly <sup>8,9</sup>		
	>1,000	Same as community		
Seasonal	All	Monthly <sup>9</sup>		

<i>Escherichia coli</i> ( <i>E. coli</i> )	Community and Noncommunity	All	Any routine or repeat samples that are Coliform positive must be analyzed for <i>E. coli</i> . <sup>4,10</sup>		
Fecal Indicator in Raw Source Water <sup>10</sup>	All ground water systems unless providing 4-log virus treatment and process compliance monitoring	All	State discretion <sup>11</sup>		

1. Public water supply systems must collect total coliform samples at sites that are representative of water throughout the distribution system and throughout the reporting period, in accordance with a written monitoring plan which is subject to State review and revision as described in section 5-1.51(c) of this Subpart. A public water system that uses only groundwater and serves 4,900 or fewer people may collect all required samples on a single day if they are taken from different sites.
2. Public water systems using surface water or groundwater directly influenced by surface water, and which do not provide filtration, must collect and analyze at least one sample for total coliforms near the first service connection each day the turbidity level of the raw water exceeds 1.49 NTU. This sample shall be collected within 24 hours. Results of this sample must be included in determining compliance with the MCLs and TTTs in Table 6 of this section.
3. Samples taken to determine disinfection practices after pipe repair, replacement, or similar activity are not to be used for determining compliance with the MCLs or TTTs in Table 6 of this section.
4. See Table 11B for repeat sampling requirements following any total coliform or *E. Coli* positive samples.
5. If chlorine or chloramines are used as the disinfectant, a chlorine residual determination shall be made at the same time and location that the sample is collected for total coliform analysis. Monitoring for heterotrophic bacteria may be substituted for free chlorine residuals. The State may allow a public water system that uses both: (1) a surface water source, or a ground water source under direct influence of surface water, and (2) a ground water source, to take disinfectant residual samples at points other than the total coliform sampling points if the State determines that such points are more representative of treated (disinfected) water quality within the distribution system. A heterotrophic plate count result equal to or less than 500 colonies per milliliter is considered to be equivalent to a measurable free chlorine residual.
6. The State may, in writing, reduce the monitoring frequency to quarterly for a community water system serving 1,000 or fewer persons and using ground water only if the system is in compliance with 10 NYCRR Subpart 5-4; has a clean compliance

history for a minimum of 12-months; is free of sanitary defects; and has a protected water source. The system must meet at least one of the following criteria: an annual site visit by the State or State-approved party that is equivalent to a Level 2 assessment and correction of all identified sanitary defects; cross connection control, as approved by the State; continuous disinfection entering the distribution system and a residual in the distribution system in accordance with criteria specified by the State; or demonstration of maintenance of at least a 4-log removal or inactivation of viruses. Systems that have been granted a disinfection waiver are not eligible for reduced monitoring frequency.

7. A community water system on quarterly monitoring must begin monthly monitoring if it meets any of the following conditions: a Level 2 assessment is triggered; two Level 1 assessments in a rolling 12-month period are triggered; an *E. coli* MCL violation; a coliform TTV; or two total coliform monitoring violations in a rolling 12-month period. Monthly monitoring must begin in the month following the event.
8. A noncommunity water system on quarterly monitoring must begin monthly monitoring if it meets any of the following conditions: a Level 2 assessment is triggered; two Level 1 assessments in a rolling 12-month period are triggered; an *E. coli* MCL violation; a coliform TTV; two total coliform monitoring violations; or one total coliform monitoring violation and one Level 1 assessment in a rolling 12-month period. Monthly monitoring must begin in the month following the event.
9. A noncommunity water system may return to quarterly monitoring if they meet the following criteria: within the last 12 months, the system must have a completed sanitary survey or Level 2 assessment, be free of sanitary defects, have a protected water source; and the system must have a clean compliance history for a minimum of 12 months.
10. Fecal indicators include *E. coli*, enterococci, and coliphage. Only *E. coli* testing will be required, unless otherwise directed by the State.
11. State discretion shall mean that monitoring is required when the State has reason to believe the MCL or TT has been violated, the potential exists for an MCL violation or TTV; or the contaminant may present a risk to public health.

Table 11B Repeat Microbiological Sampling Requirements Following Total Coliform Positive and/or Fecal Indicator Positive Sample(s)<sup>1</sup>

Type of Positive Sample	Type of Water System/Source	System Size	Number of Repeat Samples Required Within 24 Hours of Notification	Sampling Location	Required Action for Positive Repeat Samples
Routine total coliform sample(s) from distribution system	Surface water, GWUDI, or ground water performing 4-log virus treatment and process compliance monitoring	More than one service connection	Three distribution system samples	The same sampling site where the original coliform-positive sample was collected, one sample within five service connections upstream, one sample within five service connections downstream in accordance with a state approved sampling plan.	Distribution sampling must be repeated until total coliform is not detected in repeat samples, or it is determined that a treatment technique has been triggered or an MCL has been violated. <sup>2,3</sup>
		One service connection	One distribution system sample <sup>4</sup>	Original sampling location	
	Ground water system or ground water source not providing (or not documenting) 4-log virus treatment <sup>5</sup>	Population >1,000	Three distribution system samples and one source water sample from each source collected in accordance with a State-approved sampling plan <sup>6</sup>	The same distribution system sampling site where the original coliform-positive sample was collected, one sample within five service connections upstream, one sample within five service connections downstream. An additional sample must be collected from each raw water source or according to State approved sampling plan. <sup>6,7</sup>	Distribution sampling must be repeated until total coliform is not detected in repeat samples, or it is determined that a treatment technique has been triggered or an MCL has been violated. <sup>2,3</sup>

		Population ≤1,000 and more than one service connection	Three distribution system samples and one source water sample from each source collected in accordance with a State-approved sampling plan. <sup>5, 8</sup>	The same distribution system sampling site where the original coliform-positive sample was collected, one sample within five service connections upstream, and one sample within five service connections downstream. An additional sample must be collected from each raw water source or according to State approved sampling plan. <sup>6, 7, 8</sup>	
		One service connection	One distribution system sample and source water sample(s) in accordance with a State-approved sampling plan <sup>4, 6, 8</sup>	Original sampling location. An additional sample must be collected from each raw water source or according to State approved sampling plan. <sup>6, 7, 8</sup>	
		Wholesale System of any size	After notification by consecutive system of total coliform-positive sample <sup>6, 7, 9, 11</sup>	Collect one raw water sample at each source or in accordance with a State-approved sampling plan. <sup>6, 7, 9</sup>	As directed by State <sup>10</sup>
Source water sample(s) fecal indicator positive <sup>7, 10</sup>	Ground water system or ground water source not providing or not documenting 4-log virus treatment	All	Five raw water samples for fecal indicator or immediate corrective action as directed by State <sup>6, 9, 11</sup>	Fecal indicator sampling from source or sources with initial fecal indicator positive samples <sup>6, 7</sup>	As directed by State <sup>10, 11</sup>

1. After any total coliform positive sample from the distribution system, the system must collect repeat samples on the same day and within 24 hours of being notified.
2. The month following a total coliform positive sample, systems collecting samples quarterly must collect a minimum of three routine distribution system samples. The State may waive, in writing, the requirement to collect three routine samples the following month the system provides water to the public, if the State carries out an onsite visit before the end of the following month and the State determines why the sample was total coliform positive and establishes that the system has corrected the problem. The State cannot waive the requirement to collect three routine samples solely on the basis that all the repeat samples were total coliform negative. Before the end of the following month the system serves water to the public, at least one routine sample to determine compliance with the MCLs and TTTs must be collected by the system as required in Table 11.
3. Results of all routine and repeat microbiological samples not invalidated by the State must be used to determine whether a coliform TTT specified in Table 6 has been exceeded.
4. The State may allow a system with a single service connection to collect the required set of repeat samples over a three-day period or to collect a larger volume repeat sample(s) in one or two more sample containers of any size, as long as the total volume collect is at least 300 mL. If *E. coli* is used as the fecal indicator at a ground water system with a single well, a single sample of two (2) times the minimum sample volume or two (2) bottles of minimum required sample volume may be collected consecutively from the tap and the third sample collected from the raw water source. This source water sample result must be used to determine compliance with all Table 6 requirements.
5. If a consecutive system purchasing (or otherwise obtaining) ground water from a wholesale system has a total coliform-positive sample from the distribution system, the system must notify the wholesale system and collect distribution system repeat samples as specified in Table 11B within 24 hours. The wholesale system must collect raw source water sample(s) unless the system provides 4-log virus treatment at peak flow before or at the first customer as confirmed through process compliance monitoring.
6. Sampling plan requirements are given in section 5-1.51 (c) of this Subpart.
7. Fecal indicators include *E. coli*, enterococci and coliphage. Sampling for fecal indicators other than *E. coli* is at State discretion.
8. A system with a single well or a ground water source serving 1,000 or fewer persons may collect a single raw water sample to serve as both a distribution repeat sample to replace the upstream location sample and a raw water sample taken following a routine total coliform positive sample, if *E. coli* is used as the fecal indicator. If this dual-purpose source water sample is collected, the sample result must be used to determine compliance with all Table 6 requirements.
9. Wholesale system source water sampling requirements are in addition to distribution system sampling requirements for consecutive systems.
10. In the event of a fecal indicator positive sample from the raw source water, the state must be notified immediately and may require immediate corrective action. In no case will notification be later than 24 hours as described in section 5-1.78(d)(4) of this Subpart.

11. If a ground water wholesale system does not perform 4-log virus treatment and process compliance monitoring, and has a fecal indicator positive sample from a raw source water, the system must notify any consecutive systems as well as any of its own customers.

**Table 13 - REQUIRED NOTIFICATIONS**

<b>Contaminant/Situation (Subpart 5-1 citations)</b>	<b>Single sample exceeds MCL/MRDL<sup>1</sup></b>	<b>MCL/MRDL/TT<sup>1</sup> violation</b>	<b>Failure to meet monitoring requirements and/or failure to use applicable testing procedure</b>
Public Health Hazard (Section 5-1.1(bz)) <sup>2</sup>	Not applicable	State Tier 1	State Tier 1
<i>Escherichia coli</i> ( <i>E. coli</i> ) in distribution system (Section 5-1.52, Tables 6, 11 and 11B)	State <sup>3</sup> Not applicable, or Tier 1 <sup>4</sup>	State Tier 1	State Tier 3, or Tier 1 <sup>5</sup>
<i>E. coli</i> or other fecal indicator detected in ground water source at system not providing both 4-log virus treatment and process compliance monitoring (Section 5-1.52, Tables 6, 11 and 11B)	Tier 1 <sup>2,3,5,6</sup>	Tier 1 <sup>6</sup>	State Tier 3, or Tier 1 <sup>2,5,7</sup>
Total coliform in distribution system (Section 5-1.52, Tables 6, 11 and 11B)	Not applicable	State <sup>8</sup> Tier 2, or Tier 1 <sup>9</sup>	State Tier 3, or Tier 2 as directed by State
Entry Point Turbidity monthly average (Section 5-1.52, Tables 4 and 10)	State <sup>10</sup>	State Tier 2	State Tier 3
Entry Point Turbidity two day average (Section 5-1.52, Tables 4 and 10)	State	State Tier 2, or Tier 1 <sup>11</sup>	State Tier 3
Raw Water Turbidity (Subdivision 5-1.30(d) and Section 5-1.52, Table 10A)	State	State Tier 2, or Tier 1 <sup>11</sup>	State Tier 3
Filtered Water Turbidity Single exceedance of the maximum allowable Turbidity level (Section 5-1.52, Tables 4A and 10A)	State	State Tier 2, or Tier 1 <sup>11</sup>	State Tier 3
Filtered Water Turbidity Treatment Technique violation (Section 5-1.52, Tables 4A and 10A)	Not applicable	State Tier 2	State Tier 3

**Table 13 (cont.)**

<b>Contaminant/Situation (Subpart 5-1 citations)</b>	<b>Single sample exceeds MCL/MRDL<sup>1</sup></b>	<b>MCL/MRDL/TT<sup>1</sup> violation</b>	<b>Failure to meet monitoring requirements and/or failure to use applicable testing procedure</b>
Distribution Point Turbidity (Section 5-1.52, Tables 5, 10 and 10A)	Not applicable	State Tier 2	State Tier 3
Treatment Technique violations other than turbidity <sup>12,13</sup> (Sections 5-1.12, 5-1.30, 5- 1.32, 5-1.81, and 5-1.83 and Subdivision 5-1.71(d))	Not applicable	State Tier 2, or Tier 1 <sup>2,13</sup>	State Tier 3 <sup>13</sup> , or Tier 2 <sup>12</sup>
Free chlorine residual less than 0.2 mg/L at the entry point <sup>14</sup> (Subdivision 5-1.30(d))	Not applicable	State	Not applicable
Free chlorine residual less than required minimum for a ground water system or ground water source required to provide 4-log virus treatment <sup>15</sup> (Subdivision 5- 1.30(a))	Not applicable	State Tier 2, or Tier 1 <sup>9</sup>	Tier 2
Inorganic chemicals and physical characteristics listed in Tables 8A and 8B (Section 5-1.52, Tables 1, 8A, and 8B)	State	State Tier 2	State Tier 3
Chloride, iron, manganese, silver, sulfate, and zinc (Section 5-1.52, Tables 1 and 8D)	Not applicable	State Tier 3	State Tier 3
Sodium (Section 5-1.52, Tables 1 and 8D)	State if the level exceeds 20 mg/L	Tier 2 if the level exceeds 270 mg/L	Tier 3
Nitrate, Nitrite, Total Nitrate and Nitrite (Section 5-1.52, Tables 2 and 8C)	State	State Tier 1	State Tier 1, or Tier 3 <sup>16</sup>
Lead and Copper (Sections 5-1.40 to 1.48)	Not applicable	State Tier 2	State Tier
Organic Chemicals Group 1 and 2 (Section 5-1.52, Table 9C)	State	State Tier 2	State Tier 3

**Table 13 (cont.)**

<b>Contaminant/Situation (Subpart 5-1 citations)</b>	<b>Single sample exceeds MCL/MRDL1</b>	<b>MCL/MRDL/TT<sup>1</sup> violation</b>	<b>Failure to meet monitoring requirements and/or failure to use applicable testing procedure</b>
Principal Organic Contaminants Unspecified Organic Contaminants Total POCs and UOCs (Section 5-1.52, Tables 3, 9B and 9D)	State	State Tier 2	State Tier 3
Radiological Contaminants (Section 5-1.52, Tables 7 and 12)	State	State Tier 2	State Tier 3
Monitoring and Control of Disinfection Byproduct Precursors (Sections 5-1.60 to 5-1.64)	Not applicable	State Tier 2	State Tier 3
Disinfectant residuals Chlorine and Chloramine (Section 5-1.52, Tables 3A and 15A)	State	State Tier 2	State Tier 3
Disinfectant residual Chlorine dioxide at entry point (Section 5-1.52, Tables 3A, 15 and 15A)	State	State Tier 2	State Tier 3, or Tier 2 <sup>17</sup>
Disinfectant residual Chlorine dioxide in distribution system (Section 5-1.52, Tables 3A, 15 and 15A)	State	State Tier 1 <sup>18</sup>	State Tier 1 <sup>18</sup>
Disinfection byproducts Trihalomethanes Haloacetic acids (Section 5-1.52, Tables 3 and 9A) and Bromate and Chlorite (Section 5-1.52, Tables 1 and 8B)	Not applicable	State Tier 2	State Tier 3

**Table 13 (cont.)**

<b>Contaminant/Situation (Subpart 5-1 citations)</b>	<b>Single sample exceeds MCL/MRDL<sup>1</sup></b>	<b>MCL/MRDL/TT<sup>1</sup> violation</b>	<b>Failure to meet monitoring requirements and/or failure to use applicable testing procedure</b>
Acrylamide and Epichlorohydrin (Subdivision 5-1.51(m))	Not applicable	State Tier 2	Not applicable
Operation under a variance or exemption (Sections 5-1.90 to 5-1.96)	Not applicable	Tier 3	Not applicable
Violation of conditions of a variance or exemption(Sections 5-1.90 to 5-1.96)	Not applicable	State Tier 2	Not applicable
Disruption of water service of four hours or more (Subdivision 5-1.23(b))	Not applicable	State <sup>19</sup>	Not applicable

<sup>1</sup>MCL-maximum contaminant level, MRDL-maximum residual disinfectant level, TT-treatment technique

<sup>2</sup>Community systems must describe in their annual water supply statement (see section 5-1.72(e) and (f)) any Public Health Hazard that is determined to be a violation, and any uncorrected significant deficiency, and must indicate whether corrective action has been completed. This notice must be repeated every year until the annual report documents that corrective action has been completed in accordance with section 5-1.22 of this Subpart.

<sup>3</sup>State notification must be made by the supplier of water within 24 hours of learning of an *E. coli* positive sample.

<sup>4</sup>Public notification normally does not have to be issued for an *E. coli* positive sample prior to the results of the repeat samples. However, there may be situations where the State determines that a Tier 1 notification is necessary to protect the public health. The supplier of water must provide the Tier 1 notification no later than 24 hours after learning of the State's determination.

<sup>5</sup>Failure to test for *E. coli* requires a Tier 1 notification if testing is not performed after any repeat sample tests positive for coliform. All other *E. coli* monitoring and testing procedure violations require Tier 3 notification.

<sup>6</sup>At a ground water system, Tier 1 notification is required after initial detection of *E. coli* or other fecal indicator in raw source water, if the system does not provide 4-log virus treatment and process compliance monitoring. Confirmation of *E. coli* or other fecal indicator in the source water requires Tier 1 notification. Failure to take confirmatory samples may be a public health hazard requiring Tier 1 notification.

<sup>7</sup>Notice of the fecal indicator positive raw water sample must be made in the annual water supply statement (see section 5-1.72(e)), until the annual report documents that corrective action has been completed.

<sup>8</sup>State notification must be made by the supplier of water within 24 hours of learning of the violation.

<sup>9</sup>Tier 2 notification is normally required; however, there may be situations where the State determines that a Tier 1 notification is necessary to protect the public health. The supplier of water must provide the Tier 1 notification no later than 24 hours after learning of the State's determination.

<sup>10</sup>If the daily entry point analysis exceeds one NTU, a repeat sample must be taken as soon as practicable, and preferably within one hour. If the repeat sample exceeds one NTU, the supplier of water must make state notification.

<sup>11</sup>Systems must consult with the State within 24 hours after learning of the violation. Based on this consultation, the State may subsequently decide to elevate the violation from a Tier 2 to a Tier 1 notification. If consultation does not take place within the 24-hour period, the water system must distribute a Tier 1 notification no later than 48 hours after the system learns of the violation.

<sup>12</sup>These violations include the following: failure to comply with the treatment technique or monitoring requirements in section 5-1.30(a), (b), (c), and (g) of this Subpart; failure to comply with the avoidance criteria in section 5-1.30(c) of this Subpart; failure to cover a finished water storage facility or treat its discharge required in section 5-1.32 of this Subpart; failure to report to the state information required in section 5-1.72(c)(3) of this Subpart; failure to maintain records required in section 5-1.72(d)(7) of this Subpart; and failure to meet the treatment and bin classification requirements associated with *Cryptosporidium* in section 5-1.83 of this Subpart. Failure to collect three or more samples for *Cryptosporidium* analysis as required in section 5-1.81 of this Subpart is a Tier 2 violation requiring public notification. Failure to perform any other monitoring and testing procedure as required in section 5-1.81 of this Subpart is a Tier 3 violation.

<sup>13</sup>Any significant deficiency that is not corrected, or where correction has not begun according to a State-approved corrective action plan within 120 days, or as directed by the State, is a TTV and must be addressed in accordance with section 5-1.12. If the deficiency is a public health hazard, the deficiency must be addressed as directed by the State and Tier 1 notification is required.

<sup>14</sup>Applies to systems that have surface water or groundwater directly influenced by surface water as a source and use chlorine. The system must make State notification whether the residual was restored to at least 0.2 mg/L within four hours.

<sup>15</sup>Required minimum chlorine residual at point that demonstrates adequate CT for disinfected water from ground water sources at first customer.

<sup>16</sup>Failure to take a confirmation sample within 24 hours for nitrate or nitrite after an initial sample exceeds the MCL requires a Tier 1 notification. Other monitoring violations for nitrate or nitrite require a Tier 3 notification.

<sup>17</sup>Failure to monitor for chlorine dioxide at the entrance to the distribution system the day after exceeding the MRDL at the entrance to the distribution system requires a Tier 2 notification. Other monitoring violations for chlorine dioxide at the entrance to the distribution system require a Tier 3 notification.

<sup>18</sup>If any daily sample taken at the entrance to the distribution system exceeds the MRDL for chlorine dioxide and one or more samples taken in the distribution system the next day exceed the MRDL, Tier 1 notification is required. Failure to take the required samples in the distribution system the day after the MRDL is exceeded at the entry point also triggers Tier 1 notification.

<sup>19</sup>Tier 1 notification is required if the situation meets the definition of a public health hazard.

New subdivision (e) is added to section 5-1.71 to read as follows:

(e) Public water systems shall correct sanitary defects found through a Level 1 or 2 assessment. For corrections that have not been completed at the time that the assessment form is submitted the system shall complete the corrective action(s) within 120 days of identifying the sanitary defect or be in compliance with a timeframe approved by the State in consultation with the system. The system shall notify the State when each scheduled corrective action is complete.

Paragraphs (2) – (7) of subdivision (d) of section 5-1.72 are renumbered (4) – (9) and new paragraphs (2) and (3) are added to read as follows:

(2) All Level 1 and Level 2 assessment forms, documentation of corrective actions completed as a result of such assessments, and any other summary documentation of sanitary defects and corrective actions, shall be retained for at least five years.

(3) All records of repeat samples that are taken for the purpose of obtaining an extension of the 24-hour period for collecting such repeat samples shall be retained for at least five years.

Paragraph (5) of subdivision (f) of section 5-1.72 is amended to read as follows:

(5) Information on detected contaminants from sampling used to determine compliance. For the purpose of this subdivision (except *Cryptosporidium*, *Giardia*, and radon monitoring), *detected*

means: at or above the contaminant's [minimum] method detection limit (MDL), as defined in section 5-1.1[(bi)](bl), or as prescribed by the State.

\* \* \*

Subdivision (c) of section 5-1.78 is amended to read as follows:

(c) Tier 1 notification requirements (public health hazards, as defined in subdivision 5-1.1 [(bw)](bz) of this Subpart, require Tier 1 notification). The supplier of water must:

\* \* \*

Subdivision (c) of section 5-1.90 is repealed.

Subdivision (a) of section 5-1.92 is amended to read as follows:

(a) The supplier of water may request, and the department may grant, one or more exemptions from any treatment technique requirement, except for disinfection of a surface water source, and/or any MCL, except for [total coliform or Escherichia coli (E. coli)] *Escherichia coli (E. coli)*. Exemptions may be granted to any public water system based on a finding that:

\* \* \*

Paragraph (1) of subdivision (k) of section 7-5.12 is amended to read as follows:

\* \* \* \* \*

Agricultural fairground water system type	Required minimum operator grade <sup>1</sup>
Agricultural fairground water system with on-site groundwater treatment (i.e., filtration and disinfection)	IIB
Agricultural fairground water system with on-site disinfection	C
Purchases water from a public water system as defined in Subpart 5-1.1 [(at)] of this Title	D

\* \* \* \* \*

## **REGULATORY IMPACT STATEMENT**

### **Statutory Authority:**

The statutory authority for the proposed revisions is set forth in Public Health Law (PHL) sections 201 and 225. Section 201(1)(l) of the PHL establishes the powers and duties of the Department of Health (Department), which include the supervision and regulation of the sanitary aspects of public water supplies. Section 225 of the PHL sets forth the powers and duties of the Public Health and Health Planning Council (PHHPC), which include the authority to establish, amend and repeal sanitary regulations to be known as the State Sanitary Code (SSC), subject to the approval of the Commissioner of Health. Further, section 225(5)(a) of the PHL allows the SSC to deal with any matter affecting the security of life or health, or the preservation or improvement of public health, in New York State. These regulations are also in accordance with the requirements of the United States Environmental Protection Agency (EPA) and the Safe Drinking Water Act (SDWA).

### **Legislative Objectives:**

The legislative objective of sections 201 and 225 of the PHL is to ensure that PHHPC, in conjunction with the Commissioner of Health, protect the public health by adopting drinking water sanitary standards. In accordance with that objective, this regulation amends the SSC by revising Part 5 to enhance current protections governing public water systems (PWSs). Further, this amendment will update the SSC to ensure consistency with federal requirements.

**Needs and Benefits:**

The Department recognizes that there is no higher public health priority than ensuring the delivery of clean drinking water. To this end, the Department has obtained primacy for the implementation and enforcement of the majority of federal drinking water regulations. These revisions to Subpart 5-1 incorporate federal mandates regarding the Revised Total Coliform Rule (RTCR) and ensure the Department is eligible for primacy over this Rule. Notably, the Department is already implementing these federal requirements through an agreement with EPA. Accordingly, the adoption of these regulations merely formalizes the existing regulatory arrangement and is expected to have no impact on PWSs.

The RTCR increases public health protection by reducing potential pathways for fecal contamination of distribution systems. The RTCR builds on the existing Total Coliform Rule by requiring all public water supplies to assess indicators of coliform contamination and to take corrective action. These amendments strengthen the integrity of the distribution system, through increased monitoring for effectiveness of treatment and increased monitoring for possible contamination.

A technical change is also being made to Subpart 7-5 of the State Sanitary Code to make Subpart 7-5 consistent with the changes regarding the RTCR.

**Costs:****Costs to Public Water Systems**

Based on the EPA economic analysis for the Revised Total Coliform Rule (RTCR), the estimated cost to PWSs to comply with the rule averages \$120 per Community Water System (CWS) per year. The EPA cost analysis considered the potential increase in a household's water bill if a CWS passed the entire cost increase resulting from the proposed rule on to their customers. The estimated cost per household is \$0.05 per year for all PWSs. For those PWSs that will be required to perform assessments, but not required to conduct corrective actions, the estimated cost per household will be \$0.02 per year. For those PWSs that will be required to perform assessments, and required to conduct corrective actions, the estimated cost per household will be \$0.78 per year. Household costs for PWSs not required to perform assessments or conduct corrective actions are negligible.

The proposed regulatory amendments incorporate revisions to federal rules regarding the Revised Total Coliform Rule (RTCR). These proposed amendments will not impose additional cost to PWSs when adopted, because PWSs are already complying with these federal requirements.

**Costs to the Agency, the State and Local Governments for the Implementation and****Continuation of the Rule:**

State and local governments that operate PWSs are affected in different ways by these federal requirements. If a state or local government operates a PWS the estimated cost to a state or local

government PWSs to comply with the rule averages \$120 per Community Water System (CWS) per year.

All PWSs are subject to State or local health department (LHD) oversight, including those operated by a state or local government. However, these proposed amendments will not impose additional cost to PWSs when adopted, because PWSs are already complying with these federal requirements.

**Local Government Mandates:**

LHDs will not be impacted by the proposed regulations because the proposed amendments to the RTCR are already being implemented through the federal regulation. The proposed regulations are conforming regulations to the federal requirements and therefore PWSs should already be in compliance with the proposed amendments.

**Paperwork:**

These revised regulations do not require new forms or other paperwork. Adoption of these regulations will reduce paperwork because it will eliminate the need for PWSs to conduct dual reporting to the State and federal government.

**Duplication:**

Adopting these revised regulations will reduce duplication of effort for PWSs by eliminating the need for dual reporting to the State and federal government.

**Alternatives:**

Declining to adopt these regulations would make compliance oversight of PWSs primarily the responsibility of the State, with oversight by the federal government. This option would require additional and unnecessary reporting and coordination for PWSs to the EPA. The proposed rule revisions are the better alternative.

**Federal Standards:**

These revisions incorporate changes to the RTCR within the federal Safe Drinking Water Act. The federal RTCR regulation can be found at 42 CFR 141.851-141.861. Currently, PWSs must comply with the federal RTCR, pursuant to schedules established by EPA. In order to maintain primacy over the RTCR, the Department must issue regulations that are no less stringent than the current federal RTCR. Once the EPA grants the Department primacy, the EPA will delegate to the Department the enforcement authority for the RTCR. The RTCR builds on the existing Total Coliform Rule by requiring all public water supplies to assess indicators of coliform contamination and to take corrective action. These assessments protect public health by reducing potential pathways for fecal contamination of distribution systems.

**Compliance Schedule:**

Currently, PWSs must comply with RTCR pursuant to schedules established by EPA. EPA has required PWS to comply with RTCR since April 1, 2016

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**REGULATORY FLEXIBILITY ANALYSIS FOR  
SMALL BUSINESSES AND LOCAL GOVERNMENTS**

**Effect of Rule:**

Revisions to 10 NYCRR Subpart 5-1 of the State Sanitary Code are required to obtain primacy from the United States Environmental Protection Agency (EPA) for implementation of the Revised Total Coliform Rule (RTCR). Local governments and small businesses operate most of the Public Water Systems (PWSs) in New York State. It is estimated that almost 93 percent of the PWSs impacted by any of the proposed revisions are either small businesses or local governments.

**Compliance Requirements:**

Currently, PWSs must comply with the federal RTCR, pursuant to schedules established by EPA. In order to maintain primacy over the RTCR, the Department must issue regulations that are no less stringent than the current federal RTCR. Once the EPA grants the Department primacy, the EPA will delegate to the Department the enforcement authority for the RTCR.

**Professional Service:**

The proposed regulations will not change or add to the requirements for professional services used by small businesses or local governments. PWSs are currently utilizing the services of commercial laboratories and other professional services for assessments or remedial actions to comply with the federal requirements.

**Compliance Costs:**

Based on the EPA economic analysis for the Revised Total Coliform Rule (RTCR), the estimated cost to PWSs to comply with the rule averages \$120 per Community Water System (CWS) per year. The EPA cost analysis considered the potential increase in a household's water bill if a CWS passed the entire cost increase resulting from the proposed rule on to their customers. The estimated cost per household is \$0.05 per year for all PWSs. For those PWSs that will be required to perform assessments, but not required to conduct corrective actions, the estimated cost per household will be \$0.02 per year. For those PWSs that will be required to perform assessments, and required to conduct corrective actions, the estimated cost per household will be \$0.78 per year. Household costs for PWSs not required to perform assessments or conduct corrective actions are negligible.

However, the proposed regulations incorporate federal regulations and will not impose an additional cost to small business or local governments that own or operate a PWS, because PWSs are already complying with these federal requirements. After the Department is granted primacy for the enforcement for these regulations, enforcement costs are expected to be minimal because the State and Local Health Departments (LHDs) already enforce current public water supply regulations, and compliance with the proposed amendments is already widespread.

**Economic and Technological Feasibility:**

Currently available technology is adequate to meet rule requirements. Notably, EPA also determined that compliance with the federal regulations, as incorporated by these regulations, was both economically and technologically feasible for small businesses and local governments.

**Minimizing Adverse Impact:**

These revisions to Subpart 5-1 incorporate federal mandates regarding the RTCR. These regulations will also allow the EPA to grant primacy for RTCR to the Department which will reduce the oversight burden on the PWSs. With only the Department and LHDs enforcing RTCR the PWS will reduce its reporting and paperwork requirements because the PWS would not be directly over seen by the EPA.

**Small Business and Local Government Participation:**

The Department presented and discussed the proposed revisions at organizational meetings where small community water systems were represented. These meetings included the New York Rural Water Association, the American Water Works Association, the Conference of Environmental Health Directors, the New York Association of Towns, and the New York Conference of Mayors, among others.

**For Rules That Either Establish or Modify a Violation or Penalties Associated With a Violation:**

Chapter 524 of the Laws of 2011 requires agencies to include a “cure period” or other opportunity for ameliorative action to prevent the imposition of penalties on the party or parties subject to enforcement under the proposed regulation. This regulation creates no new penalty or sanction. Hence, no cure period is necessary.

## **RURAL AREA FLEXIBILITY ANALYSIS**

### **Types and Estimated Numbers of Rural Areas:**

Many PWSs are located in the 44 counties that are defined as rural and in the towns of the additional nine counties where there are rural towns. Although the revised regulations will impact PWSs in these rural areas, the revisions will have the same effect on a PWS regardless of whether it is in a rural area or an urban area.

Revisions to 10 NYCRR Subpart 5-1 of the State Sanitary Code are required to obtain primacy from the United States Environmental Protection Agency (EPA) for implementation of the Revised Total Coliform Rule (RTCR).

### **Reporting, Recordkeeping and Other Compliance Requirements; Professional Services:**

The proposed regulations do not substantially change reporting or record keeping requirements of PWSs. All PWSs are required to maintain records and report to the LHD no less than monthly. If not adopted, the federal RTCR provisions will be directly overseen by the EPA, which would increase the reporting and recordkeeping requirements of PWSs. The proposed regulations will not change the requirements for professional services used by small businesses or local governments.

Currently, PWSs must comply with the federal RTCR, pursuant to schedules established by EPA. In order to maintain primacy over the RTCR, the Department must issue regulations that are no less stringent than the current federal RTCR. Once the EPA grants the Department primacy, the EPA will delegate to the Department the enforcement authority for the RTCR.

**Compliance Costs:**

Based on the EPA economic analysis for the Revised Total Coliform Rule (RTCR), the estimated cost to PWSs to comply with the rule averages \$120 per Community Water System (CWS) per year. The EPA cost analysis considered the potential increase in a household's water bill if a CWS passed the entire cost increase resulting from the proposed rule on to their customers. The estimated cost per household is \$0.05 per year for all PWSs. For those PWSs that will be required to perform assessments, but not required to conduct corrective actions, the estimated cost per household will be \$0.02 per year. For those PWSs that will be required to perform assessments, and required to conduct corrective actions, the estimated cost per household will be \$0.78 per year. Household costs for PWSs not required to perform assessments or conduct corrective actions are negligible.

However, the proposed amendments incorporate federal regulations and will not impose an additional cost to small business or local governments in rural areas that own or operate a PWS, because PWSs are already complying with these federal requirements. After the Department is granted primacy for the enforcement of these regulations, enforcement costs are expected to be minimal because the State and LHDs already enforce current public water supply regulations, and compliance with the proposed amendments is already widespread.

**Minimizing Adverse Impact:**

These revisions to Subpart 5-1 incorporate federal mandates regarding the RTCR. These regulations will also allow the EPA to grant primacy for RTCR to the Department which will reduce the oversight burden on the PWSs. With only the Department and LHDs enforcing

RTCR the PWS will reduce its reporting and paperwork requirements because the PWS would not be directly overseen by the EPA.

**Rural Area Participation:**

The proposed revisions incorporate existing federal regulations into 10 NYCRR Subpart 5-1. Representatives of public and private interests in rural areas had an opportunity to participate in the rule making process while the federal regulations were being developed. Outreach was also conducted by the DOH's Bureau of Water Supply Protection in the form of presentations at various stakeholder meetings, such as the New York Section of the American Water Works Association and the New York Rural Water Association.

## **JOB IMPACT STATEMENT**

The Department of Health has determined that the proposed revisions will not have substantial adverse impact on jobs or employment opportunities, because they incorporate federal requirements with which public water systems are already complying.