



Revised Total Coliform Rule

Transition to Systems Conducting Level 2 Assessments

October 19, 2016

WebEx Dial-in number for audio: 1-650-479-3208
Access code: 646 089 757

Tom Wolf, Governor

Patrick McDonnell, Acting Secretary

Logistics

- All phones on mute
- Time for questions at end
 - Chat feature
- One hour in duration
- Webinar recording available on website
- Training materials on website
- Tinyurl.com/PaRTCR2



What will be covered?

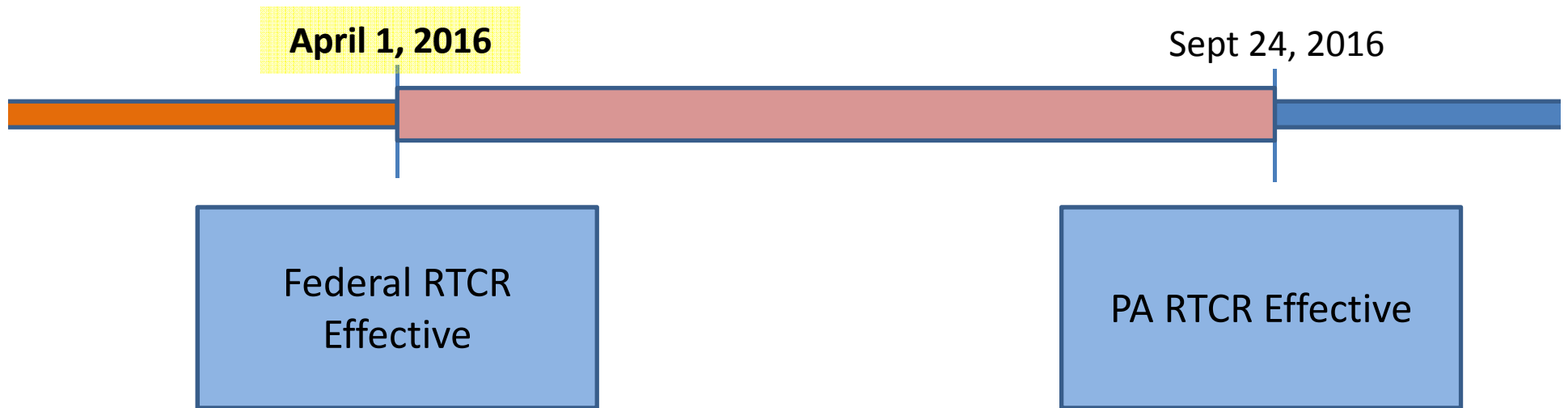
- Federal to state regulation background
- Level 2 assessments triggered after 9/24/16
 - Who conducts Level 2 assessments
 - Triggers
 - What is involved in the assessment
- Issue of concern: Transient Noncommunity Water Systems

Federal to State Background

- Federal RTCR effective on 4/1/2016
- New requirement of assessments began

Find and Fix

Federal to State Background



- Under the federal rule (April 1), systems began conducting Level 1 assessments as necessary
- The federal rule requires that Level 2 assessments are completed by the state or by a party approved by the state
- Until PA RTCR in place, state conducted Level 2 assessments

New State Requirements

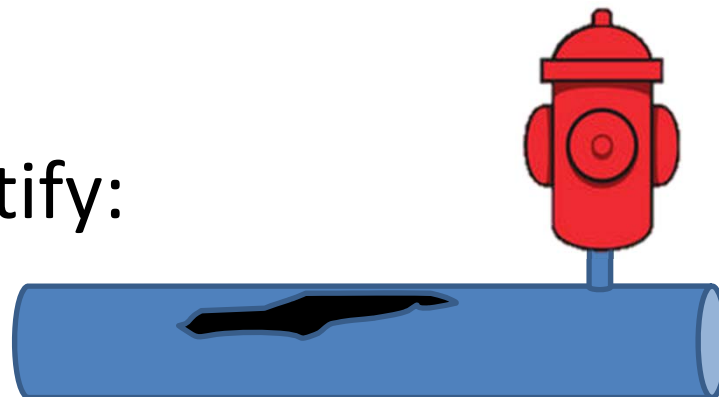
- State RTCR published in Chapter 109 on 9/24/16
- State rule requires certified operators to conduct Level 2 assessments
- Must be appropriately certified for:
 - Size (class) for the water system being assessed
 - Subclasses for treatment technologies at system



Assessment Basics

Level 1:

- Evaluation of system to identify:
 - possible sanitary defects
 - Issues in sampling practices
- Makes use of available information and data

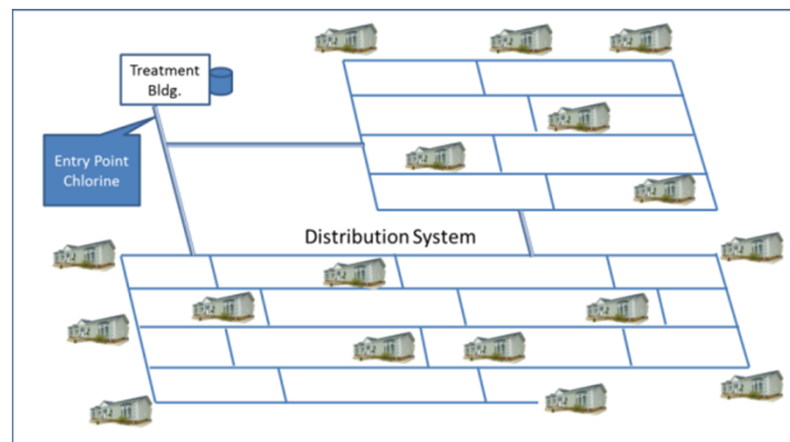


	A	B	C	D	E	F	G	H	I	J	K
1	PWSID	SYSTEM N	SAMPLE L	CONTAMI	SAMPLE PE	SAMPLE PERIC	SAMPLE DA	NUMBER OF ROU	NUMBER (# OF ROUTINE SA	NUMBER OF CI	
2	8675999	JEFF'S JAVAHOUSE	CHLORINE	11/1/2016	11/30/2016	11/17/2016		1	1	0	.
3	8675999	JEFF'S JAVAHOUSE	TOTAL CO	11/1/2016	11/30/2016	11/17/2016		1	1	1	3
4											

Assessment Basics

Level 2:

- Same goals as Level 1, but a more comprehensive evaluation
 - Additional water quality data collected as part of investigation
 - Entire water system evaluated; including all sources, treatment, tanks and distribution



Level 2 Assessment Triggers

Rolling 12 Months

January

Mo	Tu	We	Th	Fr	Sa	Su
				1	2	3
4	5	9			9	10
11	12	19			16	17
18	19	26			23	24
25	26	31			30	31

February

Mo	Tu	We	Th	Fr	Sa	Su
1	2	3	4	5	6	7
8	9	16			13	14
15	16	23			20	21
22	23	29			27	28
29						

March

Mo	Tu	We	Th	Fr	Sa	Su
	1	2	3	4	5	6
7	8	15			12	13
14	15	22			19	20
21	22	29			26	27
28	29					

April

Mo	Tu	We	Th	Fr	Sa	Su
				1	2	3
4	5	12			9	10
11	12	19			16	17
18	19	26			23	24
25	26				30	

May

Mo	Tu	We	Th	Fr	Sa	Su
						1
2	3	10			7	8
9	10	17			14	15
16	17	24			21	22
23	24	31			28	29
30	31					

June

Mo	Tu	We	Th	Fr	Sa	Su
		1	2	3	4	5
6	7	14			11	12
13	14	21			18	19
20	21	28			25	26
27	28					

July

Mo	Tu	We	Th	Fr	Sa	Su
				1	2	3
4	5	12			9	10
11	12	19			16	17
18	19	26			23	24
25	26				30	31

August

Mo	Tu	We	Th	Fr	Sa	Su
1	2	3	4	5	6	7
8	9	16			13	14
15	16	23			20	21
22	23	30			27	28
29	30					

September

Mo	Tu	We	Th	Fr	Sa	Su
			1	2	3	4
5	6	13			10	11
12	13	20			17	18
19	20	27			24	25
26	27					

October

Mo	Tu	We	Th	Fr	Sa	Su
					1	2
3	4	11			8	9
10	11	18			15	16
17	18	25			22	23
24	25	31			29	30
31						

November

Mo	Tu	We	Th	Fr	Sa	Su
	1	2	3	4	5	6
7	8	15			12	13
14	15	22			19	20
21	22	29			26	27
28	29					

December

Mo	Tu	We	Th	Fr	Sa	Su
			1	2	3	4
5	6	13			10	11
12	13	20			17	18
19	20	27			24	25
26	27				31	

Designed by Arny, arnystudio.com

E. Coli MCL

Violations of the *E. coli* (EC) MCL:

Sample Result Type: ROUTINE	Sample Result Type: CHECK	<i>E. coli</i> MCL Violation
<i>EC+</i>	TC+	YES
<i>EC+</i>	Any missing check sample	YES
TC+	<i>EC+</i>	YES
TC+	TC+ (but no <i>E. coli</i> analyses)	YES

Level 2 Assessment and Corrective Action Form

Must use DEP Assessment Form!

Six Parts:

- Part I: General Information
- Part II: Positive Sample Information
- Part III: Sampling Issue Descriptions and Corrective Actions
- Part IV: Assessment Questions
- Part V: Issue Descriptions and Corrective Actions
- Part VI: Verification



G. Distribution System for PWS with Multiple Service Connections

**If PWS does not have multiple service connections check here and skip to section H.*



Questions	Answer to Question		
	YES	NO	N/A
1. Were any water related customer complaints received within the 30 days prior to the assessment being triggered?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Has the percent of unaccounted for water increased from historical levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. If line breaks occurred within the 30 days prior to the assessment being triggered, were they repaired in accordance with AWWA Standard C651?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. If the samples that triggered the assessment were collected from the inside of a building, was there any plumbing work conducted at the site within the 30 days prior to the assessment being triggered?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Were any positive samples collected from a location that has supplementary water treatment installed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Were pressure measurements taken as part of this investigation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Did pressure measurements collected as part of this investigation indicate that the system is experiencing low or negative pressure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Did large firefighting events or other situations occur within the 30 days prior to the assessment being triggered that resulted in low pressure in any portion of the distribution system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Does the water system have a flushing program in place?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Are fire hydrants and blow offs maintained and operational without leaks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Are pump stations protected from unauthorized personnel?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Are pump stations maintained and equipment operational?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Are appropriate backflow prevention devices installed, maintained, and tested on all cross connections?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Are new customers evaluated for cross connections prior to being connected to the water system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Are air relief valves maintained and operational without leaks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Were additional chlorine measurements collected as part of this investigation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Were additional coliform bacteria samples collected as part of this investigation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Does water quality data collected in the distribution system as part of this investigation show results indicative of an issue?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Level 2 Assessment Form: Part IV.

A. Source – Well

ALL sources must be evaluated

Questions	Answer to Question		
	YES	NO	N/A
1. Are any of the wells located in a pit?	<input type="checkbox"/>	<input type="checkbox"/>	
2. Is the ground graded to prevent surface water flow towards the wells?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Do the well casings extend at least 18" above the ground?	<input type="checkbox"/>	<input type="checkbox"/>	
4. Are the exposed portions of all well casings in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Do all wells have a secured sanitary seal well cap?	<input type="checkbox"/>	<input type="checkbox"/>	
6. Are the sanitary seal well caps vented and screened?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Is there an air gap between all well vents and the ground surface?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Are appropriate backflow prevention devices installed, maintained and tested on all cross connections?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Were raw water turbidity measurements collected as part of this investigation?	<input type="checkbox"/>	<input type="checkbox"/>	
10. Does raw water quality data collected from any of the wells indicate issues with the source water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Has source yield changed for any of the wells?	<input type="checkbox"/>	<input type="checkbox"/>	
12. Are there obvious sources of contamination in the vicinity of any of the wells?	<input type="checkbox"/>	<input type="checkbox"/>	
13. Have any of the well pumps recently been repaired or replaced?	<input type="checkbox"/>	<input type="checkbox"/>	
14. Are there signs of vandalism at any of the wells?	<input type="checkbox"/>	<input type="checkbox"/>	
15. Have there been any unusual weather events that may have impacted the wells?	<input type="checkbox"/>	<input type="checkbox"/>	
16. Have there been any sewer overflows or spills, chemical spills or other disturbances in the area of the wells?	<input type="checkbox"/>	<input type="checkbox"/>	

Level 2: Part IV

14. How many customer connections for connections prior to being connected to the water system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Are air relief valves maintained and operational without leaks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Were additional chlorine measurements collected as part of this investigation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Were additional coliform bacteria samples collected as part of this investigation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18. Does water quality data collected in the distribution system as part of this investigation show results indicative of an issue?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Is the	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
20. Were	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Asked to collect additional water quality data

Level 2: Part V

- Determine if issues are sanitary defects
- Describe corrective actions and schedule

V. Issue Descriptions and Corrective Actions

Note: A separate table should be completed for every question from Part IV. that is answered in a shaded box. If more than four issues are identified, use page 9 to report additional issues and corrective actions.

Section Letter	A	Question #	3
Issue Description		Corrective Action and Completion Schedule	
The well does not have a sanitary seal cap.		We have contacted ABC well driller and they will be installing a sanitary seal well cap within 2 weeks (by 11/28/2016).	
Sanitary Defect: YES: <input checked="" type="checkbox"/> NO: <input type="checkbox"/>			

Level 2 Assessment Submission

- **30 days** after triggering: *submit the completed assessment form*
- Trigger dates for *E. Coli* MCL triggers can vary. Please see table in training materials

Sample Result Type: ROUTINE	Sample Result Type: CHECK	Assessment Trigger Date
EC+	TC+	Analysis date of TC+ check
EC+	Any missing repeat sample	Day after analysis date of EC+ routine
TC+	EC+	Analysis date of EC+ check
TC+	TC+ (but no <i>E. coli</i> analyses)	Analysis date of TC+ check that had no EC analysis conducted

Level 2 Assessment Submission

- Methods for Assessment Submission:
 - Regular Mail
 - Certified Mail
 - Fax
 - E-mail (scanned)
 - Hand Delivered to District Office
- Must be received by DEP within 30 days of system triggering assessment



Level 2 Assessment Submission

If DEP deems insufficient:

- **14 days** from the DEP notification date that assessment is insufficient: *consult with the DEP*
- **30 days** from the date of consultation: *submit revised assessment.*



Transient NCWS

- Transient Noncommunity Systems (e.g., convenience store, park, restaurant, camp)
- These systems moved from quarterly to monthly coliform monitoring on 4/1/16
- Triggering the most Level 2 assessments compared to community water systems



Transient NCWS

- Generally not required to have a certified operator to operate and maintain water system
- If they trigger a Level 2, need to contract with an operator to conduct assessment
 - Doesn't mean that this operator becomes the “available operator” for this system

Transient NCWS

Survey coming soon!

Willing to be an assessor for Level 2s at transients?



Transient NCWS

Training in 2017 focused on Level 2 assessments at transient non-community systems



Transient Systems: Common Issues

Lack of a sanitary well seal



Transient Systems: Common Issues



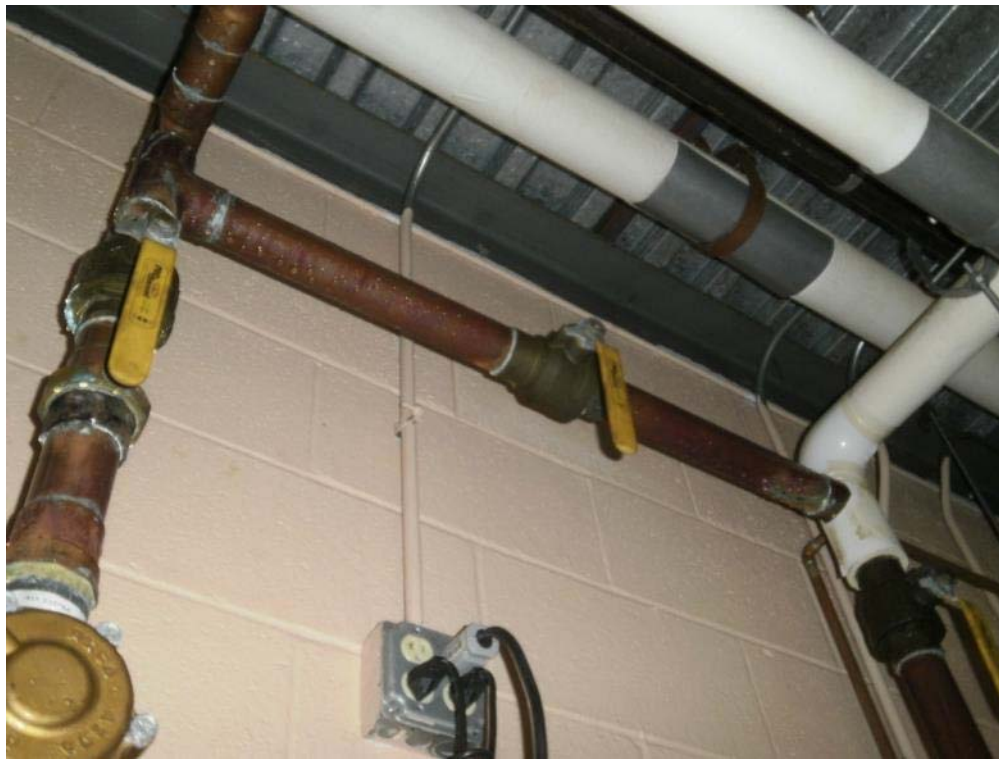
Transient Systems: Common Issues

Lack of air gap for treatment drain lines



Transient Systems: Common Issues

Bypass around UV light



▶ Transient Systems: Common Issues

- Sampling from mixed faucet





Search



e-learning
Tutorial

Conducting a Level 1 Assessment Tutorial 1: Parts I, II, and III

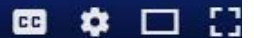
Transient Non-Community Water Systems



pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

Revised Total Coliform Rule
Safe Drinking Water Program

0:14 / 6:43



RTCR Level 1 Assessment Tutorial 1: Assessment Form Parts I, II, and III



Pennsylvania DEP

Subscribed 194

DEPARTMENT OF ENVIRONMENTAL
PROTECTION

Key Points

- Pa RTCR effective 9/24/16.
- Appropriately certified operators must conduct Level 2 Assessments
- Level 2 Assessment is a more in-depth evaluation of the water system

Key Points

- Two triggers for a Level 2 Assessment:
 - 2nd Level 1 in a rolling 12 months
 - *E. coli* MCL violation
- Level 2 Assessment form and instructions developed by DEP must be used by water systems
- **30 days** to submit the completed assessment form from trigger date

Questions when conducting assessments

- Contact your local office/Sanitarian
- List by county in back of assessment form

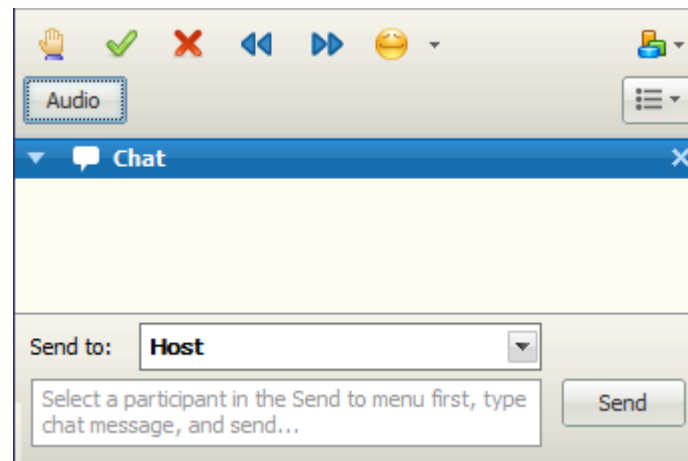
3930-FM-BSDW0537 Rev. 4/2016

DEP Office and County Health Department Contact Information by County

County	Address	Telephone #	Fax #
Adams	York District Office 150 Roosevelt Ave., Ste. 200, York, PA 17401	717-771-4481	717-845-3496
Allegheny	Allegheny County Health Department 3901 Penn Ave., Bldg. 5, Pittsburgh, PA 15224	412-578-8047	412-578-8053
Armstrong	New Stanton District Office 131 Broadview Rd., New Stanton, PA 15672	724-925-5500	724-925-5557
Beaver	Beaver Falls District Office 715 15 th St., Beaver Falls, PA 15010	724-847-5270	724-847-5281
Bedford	Altoona District Office 3001 Fairway Dr., Altoona, PA 16602	814-946-7292	814-949-7938
Berks	Reading District Office 1005 Cross Roads Blvd., Reading, PA 19605	610-916-0100	610-916-0110
Blair	Altoona District Office 3001 Fairway Dr., Altoona, PA 16602	814-946-7292	814-949-7938
Bradford	Mansfield District Office 600 Gateway Dr., Mansfield, PA 16933	570-662-0830	570-662-0843
Bucks	Southeast Regional Office 2 E. Main St., Norristown, PA 19401	484-250-5980	484-250-5971
Butler	New Castle District Office 121 N. Mill St., New Castle, PA 16101	724-656-3160	724-656-3267
Cambria	Cambria District Office 286 Industrial Park Rd., Ebensburg, PA 15931	814-472-1900	814-472-1861
Cameron	Moshannon District Office 186 Enterprise Dr., Philipsburg, PA 16866	814-342-8200	814-342-8216
Carbon	Pottsville District Office 5 W. Laurel Blvd., Pottsville, PA 17901	570-621-3118	570-621-3430
Centre	Moshannon District Office 186 Enterprise Dr., Philipsburg, PA 16866	814-342-8200	814-342-8216
Chester	Southeast Regional Office 2 E. Main St., Norristown, PA 19401	484-250-5980	484-250-5971
Clarion	Knox District Office P.O. Box 689, Knox, PA 16232	814-797-1191	814-797-2706
Clearfield	Moshannon District Office 186 Enterprise Dr., Philipsburg, PA 16866	814-342-8200	814-342-8216
Clinton	Moshannon District Office 186 Enterprise Dr., Philipsburg, PA 16866	814-342-8200	814-342-8216
Columbia	Sunbury District Office 309 N. 5 th St., Ste D, Sunbury, PA 17801	570-988-5500	570-988-5507
Crawford	Northwest Regional Office 230 Chestnut St., Meadville, PA 16335	814-332-6899	814-332-6121
Cumberland	York District Office 150 Roosevelt Ave., Ste. 200, York, PA 17401	717-771-4481	717-845-3496
Dauphin	Southcentral Regional Office 909 Elmerton Ave., Harrisburg, PA 17110	717-705-4708	717-705-4930

Questions

- Use the chat box in the lower right to submit your questions





pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Bureau of Safe Drinking Water



Jeff Allgyer
Sabrina Haydt
Bill McNamara

For more information:
<http://tinyurl.com/PaRTCR2>

Tom Wolf, Governor

Patrick McDonnell, Acting Secretary