

## Comprehensive Monitoring Plan

Complete and submit a copy of this form to the appropriate local DEP office by the dates specified in § 109.717(a).

*Safe Drinking Water Program local DEP district offices phone numbers (including 24/7 numbers), mailing addresses and FAX numbers are at this link: <http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-117702/3930-FM-BSDW0560.pdf>*

### PART 1: GENERAL SYSTEM INFORMATION

PWS Name:			PWSID:		
PWS Type:	<input type="checkbox"/> CWS	<input type="checkbox"/> NTNCWS	Population Served:		
Mailing Address:					
Contact Person:					
Phone:			Email:		
Source Types: (check <i>all</i> that apply)	<input type="checkbox"/> Surface Water <input type="checkbox"/> Ground Water <input type="checkbox"/> GUDI – GW under direct influence of SW	<input type="checkbox"/> Purchased Surface Water <input type="checkbox"/> Purchased Ground Water <input type="checkbox"/> Purchased GUDI – GW under direct influence of SW	Is PWS selling finished water to any other public water system? <input type="checkbox"/> Yes <input type="checkbox"/> No		

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## PART 2: SOURCE TREATMENT PLANT (TP) & ENTRY POINT (EP) INFORMATION

### Availability and Type Codes

<u>Availability Codes</u>	<u>Source Type Codes</u>
P = Permanent R = Reserve <i>(must be identified in permit)</i> E = Emergency <i>(purchased sources only)</i>	G = Groundwater W = Purchased GW S = Surface Water P = Purchased SW  GUDI = Groundwater Under Direct Influence (of SW) Z = Purchased GUDI

*Table 2A – System-owned Sources*

Source ID	Source Name	Source Availability	Source Type	Associated TP ID	EP ID	EP Name	EP Availability

*Table 2B – Purchased Sources*

Source ID	Source Name	Source Availability	Source Type	EP ID	EP Availability	Seller's PWS ID	Distribution Disinfectant Used by Seller

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### PART 3: NUMBER OF SAMPLES REQUIRED

EP ID	No. Sources	Source Contribution	Description of How Sources Are Used	No. Samples Req'd
		<input type="checkbox"/> Alternated <input type="checkbox"/> Blended <input type="checkbox"/> Both <input type="checkbox"/> N/A		
		<input type="checkbox"/> Alternated <input type="checkbox"/> Blended <input type="checkbox"/> Both <input type="checkbox"/> N/A		
		<input type="checkbox"/> Alternated <input type="checkbox"/> Blended <input type="checkbox"/> Both <input type="checkbox"/> N/A		
		<input type="checkbox"/> Alternated <input type="checkbox"/> Blended <input type="checkbox"/> Both <input type="checkbox"/> N/A		
		<input type="checkbox"/> Alternated <input type="checkbox"/> Blended <input type="checkbox"/> Both <input type="checkbox"/> N/A		
		<input type="checkbox"/> Alternated <input type="checkbox"/> Blended <input type="checkbox"/> Both <input type="checkbox"/> N/A		
		<input type="checkbox"/> Alternated <input type="checkbox"/> Blended <input type="checkbox"/> Both <input type="checkbox"/> N/A		
		<input type="checkbox"/> Alternated <input type="checkbox"/> Blended <input type="checkbox"/> Both <input type="checkbox"/> N/A		
		<input type="checkbox"/> Alternated <input type="checkbox"/> Blended <input type="checkbox"/> Both <input type="checkbox"/> N/A		
		<input type="checkbox"/> Alternated <input type="checkbox"/> Blended <input type="checkbox"/> Both <input type="checkbox"/> N/A		

**NOTES:**

- If only 1 source contributes to EP or sources are blended at a consistent ratio, then only 1 sample/EP is needed for each set of compliance monitoring.
- If multiple sources are used that are alternated where each source is operated by itself, then the number of samples needed for each set of compliance monitoring is equal to the number of sources at that EP.
- If multiple sources are used that are alternated differently or that are blended at different ratios then describe how the sources are used and identify the number of samples that will be required for each set of compliance monitoring to ensure all sources are included.
  - If alternated, what conditions determine when the sources are switched (such as a set schedule)? Is the switchover automatic or manual?
  - If blended, how are the sources used and what conditions determine the blending ratio?

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## PART 4: TREATMENT INFORMATION

For *each* EP ID, check the appropriate box(es) for the contaminant(s) for which treatment has been installed. If no treatment has been installed, check the N/A box for that contaminant group. (*Copy or print additional pages as needed.*)

EP ID	IOCs <input type="checkbox"/> N/A	VOCs <input type="checkbox"/> N/A	SOCs <input type="checkbox"/> N/A
	<input type="checkbox"/> Antimony <input type="checkbox"/> Cyanide <input type="checkbox"/> Arsenic <input type="checkbox"/> Fluoride <input type="checkbox"/> Asbestos <input type="checkbox"/> Mercury <input type="checkbox"/> Barium <input type="checkbox"/> Nitrate <input type="checkbox"/> Beryllium <input type="checkbox"/> Nitrite <input type="checkbox"/> Cadmium <input type="checkbox"/> Selenium <input type="checkbox"/> Chromium <input type="checkbox"/> Thallium <hr/> <p style="text-align: center;"><b>RADs</b> <input type="checkbox"/> N/A</p> <input type="checkbox"/> Gross Alpha <input type="checkbox"/> Radium 226 <input type="checkbox"/> Radium 228 <input type="checkbox"/> Uranium <input type="checkbox"/> Gross Beta	<input type="checkbox"/> 1,1-Dichloroethylene* <input type="checkbox"/> Benzene <input type="checkbox"/> cis-1,2-Dichloroethylene <input type="checkbox"/> Carbon Tetrachloride <input type="checkbox"/> trans-1,2-Dichloroethylene* <input type="checkbox"/> Dichloromethane <input type="checkbox"/> 1,2-Dichloroethane* <input type="checkbox"/> Ethylbenzene <input type="checkbox"/> 1,1,1-Trichloroethane* <input type="checkbox"/> Monochlorobenzene <input type="checkbox"/> 1,1,2-Trichloroethane* <input type="checkbox"/> Styrene <input type="checkbox"/> 1,2,4-Trichlorobenzene <input type="checkbox"/> Toluene <input type="checkbox"/> 1,2-Dichloropropane <input type="checkbox"/> Trichloroethylene* <input type="checkbox"/> o-Dichlorobenzene <input type="checkbox"/> Tetrachloroethylene* <input type="checkbox"/> para-Dichlorobenzene <input type="checkbox"/> Xylenes (total) <div style="text-align: center;"><input type="checkbox"/> Vinyl Chloride</div>	<input type="checkbox"/> 2,4-D <input type="checkbox"/> Endrin <input type="checkbox"/> 2,4,5-TP <input type="checkbox"/> EDB <input type="checkbox"/> Alachlor <input type="checkbox"/> Glyphosate <input type="checkbox"/> Atrazine <input type="checkbox"/> Heptachlor <input type="checkbox"/> Benzo(a)pyrene <input type="checkbox"/> Heptachlor epoxide <input type="checkbox"/> Carbofuran <input type="checkbox"/> Hexachlorobenzene <input type="checkbox"/> Chlordane <input type="checkbox"/> Hexachlorocyclopentadiene <input type="checkbox"/> Dalapon <input type="checkbox"/> Lindane <input type="checkbox"/> Di(ethylhexyl)adipate <input type="checkbox"/> Methoxychlor <input type="checkbox"/> Di(ethylhexyl)phthalate <input type="checkbox"/> Oxamyl (Vydate) <input type="checkbox"/> DBCP <input type="checkbox"/> PCBs <input type="checkbox"/> Dinoseb <input type="checkbox"/> Pentachlorophenol <input type="checkbox"/> Dioxin <input type="checkbox"/> Picloram <input type="checkbox"/> Diquat <input type="checkbox"/> Simizine <input type="checkbox"/> Endothall <input type="checkbox"/> Toxaphene
EP ID	IOCs <input type="checkbox"/> N/A	VOCs <input type="checkbox"/> N/A	SOCs <input type="checkbox"/> N/A
	<input type="checkbox"/> Antimony <input type="checkbox"/> Cyanide <input type="checkbox"/> Arsenic <input type="checkbox"/> Fluoride <input type="checkbox"/> Asbestos <input type="checkbox"/> Mercury <input type="checkbox"/> Barium <input type="checkbox"/> Nitrate <input type="checkbox"/> Beryllium <input type="checkbox"/> Nitrite <input type="checkbox"/> Cadmium <input type="checkbox"/> Selenium <input type="checkbox"/> Chromium <input type="checkbox"/> Thallium <hr/> <p style="text-align: center;"><b>RADs</b> <input type="checkbox"/> N/A</p> <input type="checkbox"/> Gross Alpha <input type="checkbox"/> Radium 226 <input type="checkbox"/> Radium 228 <input type="checkbox"/> Uranium <input type="checkbox"/> Gross Beta	<input type="checkbox"/> 1,1-Dichloroethylene* <input type="checkbox"/> Benzene <input type="checkbox"/> cis-1,2-Dichloroethylene <input type="checkbox"/> Carbon Tetrachloride <input type="checkbox"/> trans-1,2-Dichloroethylene* <input type="checkbox"/> Dichloromethane <input type="checkbox"/> 1,2-Dichloroethane* <input type="checkbox"/> Ethylbenzene <input type="checkbox"/> 1,1,1-Trichloroethane* <input type="checkbox"/> Monochlorobenzene <input type="checkbox"/> 1,1,2-Trichloroethane* <input type="checkbox"/> Styrene <input type="checkbox"/> 1,2,4-Trichlorobenzene <input type="checkbox"/> Toluene <input type="checkbox"/> 1,2-Dichloropropane <input type="checkbox"/> Trichloroethylene* <input type="checkbox"/> o-Dichlorobenzene <input type="checkbox"/> Tetrachloroethylene* <input type="checkbox"/> para-Dichlorobenzene <input type="checkbox"/> Xylenes (total) <div style="text-align: center;"><input type="checkbox"/> Vinyl Chloride</div>	<input type="checkbox"/> 2,4-D <input type="checkbox"/> Endrin <input type="checkbox"/> 2,4,5-TP <input type="checkbox"/> EDB <input type="checkbox"/> Alachlor <input type="checkbox"/> Glyphosate <input type="checkbox"/> Atrazine <input type="checkbox"/> Heptachlor <input type="checkbox"/> Benzo(a)pyrene <input type="checkbox"/> Heptachlor epoxide <input type="checkbox"/> Carbofuran <input type="checkbox"/> Hexachlorobenzene <input type="checkbox"/> Chlordane <input type="checkbox"/> Hexachlorocyclopentadiene <input type="checkbox"/> Dalapon <input type="checkbox"/> Lindane <input type="checkbox"/> Di(ethylhexyl)adipate <input type="checkbox"/> Methoxychlor <input type="checkbox"/> Di(ethylhexyl)phthalate <input type="checkbox"/> Oxamyl (Vydate) <input type="checkbox"/> DBCP <input type="checkbox"/> PCBs <input type="checkbox"/> Dinoseb <input type="checkbox"/> Pentachlorophenol <input type="checkbox"/> Dioxin <input type="checkbox"/> Picloram <input type="checkbox"/> Diquat <input type="checkbox"/> Simizine <input type="checkbox"/> Endothall <input type="checkbox"/> Toxaphene

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## PART 5: WAIVER INFORMATION

For *each* EP ID, check the appropriate box(es) for the contaminant(s) for which a waiver has been approved. If no waivers have been approved for that contaminant group, check the N/A box. (Copy or print additional pages as needed.)

EP ID	IOCs <input type="checkbox"/> N/A	VOCs <input type="checkbox"/> N/A	SOCs <input type="checkbox"/> N/A		
	<input type="checkbox"/> Antimony <input type="checkbox"/> Arsenic <input type="checkbox"/> Asbestos <input type="checkbox"/> Barium <input type="checkbox"/> Beryllium <input type="checkbox"/> Cadmium <input type="checkbox"/> Chromium <input type="checkbox"/> Cyanide <input type="checkbox"/> Fluoride <input type="checkbox"/> Mercury <input type="checkbox"/> Selenium <input type="checkbox"/> Thallium	<input type="checkbox"/> 1,1-Dichloroethylene* <input type="checkbox"/> cis-1,2-Dichloroethylene <input type="checkbox"/> trans-1,2-Dichloroethylene* <input type="checkbox"/> 1,2-Dichloroethane* <input type="checkbox"/> 1,1,1-Trichloroethane* <input type="checkbox"/> 1,1,2-Trichloroethane* <input type="checkbox"/> 1,2,4-Trichlorobenzene <input type="checkbox"/> 1,2-Dichloropropane <input type="checkbox"/> o-Dichlorobenzene <input type="checkbox"/> para-Dichlorobenzene <div style="text-align: center;"><input type="checkbox"/> Vinyl Chloride</div>	<input type="checkbox"/> Benzene <input type="checkbox"/> Carbon Tetrachloride <input type="checkbox"/> Dichloromethane <input type="checkbox"/> Ethylbenzene <input type="checkbox"/> Monochlorobenzene <input type="checkbox"/> Styrene <input type="checkbox"/> Toluene <input type="checkbox"/> Trichloroethylene* <input type="checkbox"/> Tetrachloroethylene* <input type="checkbox"/> Xylenes (total)	<input type="checkbox"/> 2,4-D <input type="checkbox"/> 2,4,5-TP <input type="checkbox"/> Alachlor <input type="checkbox"/> Atrazine <input type="checkbox"/> Benzo(a)pyrene <input type="checkbox"/> Carbofuran <input type="checkbox"/> Chlordane <input type="checkbox"/> Dalapon <input type="checkbox"/> Di(ethylhexyl)adipate <input type="checkbox"/> Di(ethylhexyl)phthalate <input type="checkbox"/> DBCP <input type="checkbox"/> Dinoseb <input type="checkbox"/> Dioxin <input type="checkbox"/> Diquat <input type="checkbox"/> Endothall	<input type="checkbox"/> Endrin <input type="checkbox"/> EDB <input type="checkbox"/> Glyphosate <input type="checkbox"/> Heptachlor <input type="checkbox"/> Heptachlor epoxide <input type="checkbox"/> Hexachlorobenzene <input type="checkbox"/> Hexachlorocyclopentadiene <input type="checkbox"/> Lindane <input type="checkbox"/> Methoxychlor <input type="checkbox"/> Oxamyl (Vydate) <input type="checkbox"/> PCBs <input type="checkbox"/> Pentachlorophenol <input type="checkbox"/> Picloram <input type="checkbox"/> Simizine <input type="checkbox"/> Toxaphene
EP ID	IOCs <input type="checkbox"/> N/A	VOCs <input type="checkbox"/> N/A	SOCs <input type="checkbox"/> N/A		
	<input type="checkbox"/> Antimony <input type="checkbox"/> Arsenic <input type="checkbox"/> Asbestos <input type="checkbox"/> Barium <input type="checkbox"/> Beryllium <input type="checkbox"/> Cadmium <input type="checkbox"/> Chromium <input type="checkbox"/> Cyanide <input type="checkbox"/> Fluoride <input type="checkbox"/> Mercury <input type="checkbox"/> Selenium <input type="checkbox"/> Thallium	<input type="checkbox"/> 1,1-Dichloroethylene* <input type="checkbox"/> cis-1,2-Dichloroethylene <input type="checkbox"/> trans-1,2-Dichloroethylene* <input type="checkbox"/> 1,2-Dichloroethane* <input type="checkbox"/> 1,1,1-Trichloroethane* <input type="checkbox"/> 1,1,2-Trichloroethane* <input type="checkbox"/> 1,2,4-Trichlorobenzene <input type="checkbox"/> 1,2-Dichloropropane <input type="checkbox"/> o-Dichlorobenzene <input type="checkbox"/> para-Dichlorobenzene <div style="text-align: center;"><input type="checkbox"/> Vinyl Chloride</div>	<input type="checkbox"/> Benzene <input type="checkbox"/> Carbon Tetrachloride <input type="checkbox"/> Dichloromethane <input type="checkbox"/> Ethylbenzene <input type="checkbox"/> Monochlorobenzene <input type="checkbox"/> Styrene <input type="checkbox"/> Toluene <input type="checkbox"/> Trichloroethylene* <input type="checkbox"/> Tetrachloroethylene* <input type="checkbox"/> Xylenes (total)	<input type="checkbox"/> 2,4-D <input type="checkbox"/> 2,4,5-TP <input type="checkbox"/> Alachlor <input type="checkbox"/> Atrazine <input type="checkbox"/> Benzo(a)pyrene <input type="checkbox"/> Carbofuran <input type="checkbox"/> Chlordane <input type="checkbox"/> Dalapon <input type="checkbox"/> Di(ethylhexyl)adipate <input type="checkbox"/> Di(ethylhexyl)phthalate <input type="checkbox"/> DBCP <input type="checkbox"/> Dinoseb <input type="checkbox"/> Dioxin <input type="checkbox"/> Diquat <input type="checkbox"/> Endothall	<input type="checkbox"/> Endrin <input type="checkbox"/> EDB <input type="checkbox"/> Glyphosate <input type="checkbox"/> Heptachlor <input type="checkbox"/> Heptachlor epoxide <input type="checkbox"/> Hexachlorobenzene <input type="checkbox"/> Hexachlorocyclopentadiene <input type="checkbox"/> Lindane <input type="checkbox"/> Methoxychlor <input type="checkbox"/> Oxamyl (Vydate) <input type="checkbox"/> PCBs <input type="checkbox"/> Pentachlorophenol <input type="checkbox"/> Picloram <input type="checkbox"/> Simizine <input type="checkbox"/> Toxaphene

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## PART 6: ENTRY POINT SAMPLING INFORMATION

### Monitoring Status & Frequency Codes

Monitoring Status Codes	Monitoring Frequency Codes	
I = Initial/Increased	A = Annual	3 = Triennial (every 3 years)
S = Standard/Routine	Q = Quarterly	9 = Every 9 years
R = Reduced	W = Waiver Approved	6 = Every 6 years (RADs only)

NOTE: Samples may be composited for IOCs, VOCs and SOCs (RADs samples may *not* be composited). If the population is greater than 3,300, compositing may only be done at sampling points within a single system. If the population is less than or equal to 3,300, samples may be composited among different systems. No more than 5 samples may be included in the composite sample.

Table 4A – Inorganic Chemicals (IOCs)

Year Waiver Expires: \_\_\_\_\_

EP ID	Monitoring		Year Due	Sampling Schedule	Included in Composite?	EPs Included in Composite Sample
	Status	Frequency				

NOTE: Compliance monitoring for contaminants for which treatment has been installed must be conducted at least annually, unless increased monitoring is required. For *each* EP, identify in a separate row any individual contaminants that are on a monitoring frequency that is different from the group frequency.

Table 4B – Volatile Organic Chemicals (VOCs)

Year Waiver Expires: \_\_\_\_\_

EP ID	Monitoring		Year Due	Sampling Schedule	Included in Composite?	EPs Included in Composite Sample
	Status	Frequency				

NOTE: Compliance monitoring for all VOCs must be conducted at least annually if any VOC removal treatment has been installed or if any VOCs were previously detected, unless increased monitoring is required.

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Table 4C – Synthetic Organic Chemicals (SOCs)

Year Waiver Expires: \_\_\_\_\_

EP ID	Monitoring		Year Due	Sampling Schedule	Included in Composite?	EPs Included in Composite Sample
	Status	Frequency				

NOTES: Compliance monitoring for contaminants for which treatment has been installed or that were previously detected must be conducted at least annually unless increased monitoring is required. For *each* EP, identify in a separate row any individual contaminants that are on a monitoring frequency that is different from the group frequency.

Table 4D – Radiological Chemicals (RADs)

EP ID	Contaminant	Monitoring		Year Due	Sampling Schedule
		Status	Frequency		
	Gross Alpha				
	Ra 226/228				
	Uranium				
	Gross Alpha				
	Ra 226/228				
	Uranium				
	Gross Alpha				
	Ra 226/228				
	Uranium				
	Gross Alpha				
	Ra 226/228				
	Uranium				
	Gross Alpha				
	Ra 226/228				
	Uranium				

NOTE: Compliance monitoring for contaminants for which treatment has been installed must be conducted at least annually, unless increased monitoring is required.

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## **PART 7: DISTRIBUTION SYSTEM SAMPLING INFORMATION**

*Question 7A: Describe how sources that are not used at least once/week are represented in disinfection byproducts sampling:*

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NOTE: If additional sampling locations are needed or additional monitoring (at existing compliance sampling locations) is needed, update the *Disinfectants/Disinfection Byproducts Monitoring Plan* and attach a copy of the revised plan with this form.

*Question 7B. Describe how all sources that are not used at least once/week are captured in coliform and disinfectant residual sampling.*

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NOTE: If additional sampling locations are needed or additional monitoring (at existing compliance sampling locations) is needed, update the *Coliform Sample Siting Plan & the Distribution Disinfectants Monitoring Plan* and attach a copy of each revised plan with this form.

*Question 7C: Describe how all sources that are not used at least once/week are captured in lead and copper and water quality parameter sampling.*

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NOTE: If additional sampling locations are needed, update the *Lead & Copper Sample Siting Plan* and attach a copy of the revised plan with this form. If additional monitoring (at existing compliance sampling locations) is needed, consult with the appropriate local DEP office to discuss your monitoring requirements.

## **PART 8: ATTACHMENTS**

Attachment 1 – *Coliform Sample Siting Plan*, dated \_\_\_\_\_ (date of last revision)

Attachment 2 – *Disinfectants/Disinfection Byproducts Monitoring Plan*, dated \_\_\_\_\_ (date of last revision)

Attachment 3 – *Lead & Copper Sample Siting Plan*, dated \_\_\_\_\_ (date of last revision)