# 2016 EPA Region 8 WY SANITARY SURVEY FORM INVENTORY

DATE OF SURVEY:	COUNTY:	SURVEYOR NAME:
PWS ID:	SYSTEM NAME:	
System representatives (including tit	tles) present at survey:	EMERGENCY CONTACT
Others present:		Emergency Contact Name:
Comments:		Emergency cell phone: ()
		Emergency email address:
		Title:
		Street:
		City: State: County: Zip:
SYSTEM OWNER OR MUNICIP	AL LEGAL REPRESENTATIVE	PRIMARY ADMINISTRATIVE CONTACT
Addressee Name:	Company:	(to receive ALL correspondence from EPA)
Title:		Addressee:
Street:		Title: Street:
City: State: Zip: _		City: State: County: Zip:
Owner Phone: () Fax	: ()	Administrative Contact Phone: () Fax: ()
Email Address:		Email Address:
ADDITIONA (if a		PUBLIC WORKS DIRECTOR, CITY ENGINEER and/or WATER PLANT SUPERINTENDENT
Addressee:	•	Addressee:
Title:		Title:
Street:		Street:
City: State: County	/: Zip:	City: State: County: Zip:
Contact Phone: () Fa	x: <u>( )</u>	Contact Phone: ( ) Fax: ( )
Email Address:		Email Address:
Comments:		Littali Address
DESIGNATED OPER	RATOR OF SYSTEM	ALTERNATE OPERATOR
Name: Certified Operator? @ ☐ Yes ☐ No	TNC System (not required)	Name:  Certified Operator? ☐ Yes ☐ No ☐ Not required
Treatment Cert. Level:	Distribution Cert. Level:	Treatment Cert. Level: Distribution Cert. Level:
Treatment Cert. Exp. Date:	Distribution Cert. Exp. Date:	Treatment Cert. Exp. Date: Distribution Cert. Exp. Date:
Cert. Authority:	Cert. Authority:	Cert. Authority: Cert. Authority:
Phone: ( )		Phone: ()
Email Address:		Email Address:
Contract Operator*? ☐ Yes ☐ No		Comments:
Date contract ends:		Go to: http://deq.wyoming.gov/wqd/operator-certification/
Comments:		Click on: Check Facility Records then Click on: Check Operator Records
Go to: http://deq.wyoming.gov/wqd/opera		
WATER SYSTEM	•	WATER SYSTEM CLASSIFICATION
for operator		from PWS Inventory
System Treatment Classification Lev		C = Community
System Distribution Classification Le	evei:	NTNC = Non-Transient Non-Community
Comments: Go to: http://deg.wyoming.gov/wgd/opera	ator-certification/	☐ NC = Transient Non-Community Comments:
Click on: Check Facility Records	aco: ooranoadoru	Commond.
SYSTEM PHYSI	CAL ADDRESS	PHYSICAL LOCATION
Street:		Physical Location and Directions:
		Thysical Education and Directions.

DEQ DISTRICT ENGINEER	COUNTY AND/OR CHS SANITARIAN
, District Engineer	, CHS Specialist
Phone: 307	Phone: 307
Email:	Email:
PERIOD OF OPERATION	SERVICE CONNECTIONS
☐ Year-round	Total Service Connections (Active and Inactive):
Part of the year: From to	Service Connections Metered?
If only open part of the year, does the entire distribution system remain pressurized during the entire off period? $\ \square$ Yes $\ \square$ No	Number of metered service connections: Comments:
Is this PWS operating with a lease on Federal land? ☐ Yes ☐ No If yes, Federal land name:	
Comments:	
OWNER TYPE  1 Federal Government	POPULATION DIRECTLY SERVED (do not include populations of consecutive PWSs)
2 Private: Subdivision, Investor, Trust, Cooperative, Water Association, etc.	Residential Population: (Number of year-round residents utilizing PWS)
3 State Government	Non-Transient Population:
<ul> <li>☐ 4 Local Government Authority: Commission, District, Municipality, City, etc.</li> <li>☐ 5 Mixed Public/Private</li> </ul>	(Number of the same persons utilizing PWS Daily for 6 months of the year – i.e. students, employees)
6 Native American Indian Tribes & Reservations	Transient Population:
7 Other	(Average number of transient persons served by PWS daily during peak 60 days of operation – i.e. customers, visitors)
Comments:	
	Does the water system serve at least 25 individuals daily at least 60 days of the year (does not need to be consecutive days)? ☐ Yes ☐ No
	Comments (source(s) of population info):
SERVICE CATEGORY (check all that apply)	SOURCES (check all that apply)
☐ AP Airport ☐ PC Picnic Area	☐ SW = Surface Water ☐ SWP = Surface Water Purchased
☐ BA Bathing/Swimming ☐ RA Rest Area ☐ BR Bar ☐ RC Recreation	☐ GW = Groundwater ☐ GWP= Groundwater Purchased
☐ CG Campground ☐ RS Residential ☐ CH Church ☐ RT Restaurant	☐ GWUDI = Ground Water Under the Direct Influence of Surface Water
DC Daycare Center RV RV Park	If mixed, does GW receive full SW Treatment? ☐ Yes ☐ No
□ DR Dude Ranch       □ SC School         □ HS Hospital       □ SD Subdivision         □ IB Interstate Bottler       □ SK Ski Area	Is the current water source adequate in quantity?  Yes No Describe:
☐ IF Industrial/Agricultural ☐ SS Service Station ☐ IN Institution ☐ US Water User's Association	Have there been any interruptions in service since the last survey?  Yes No Describe:
□ LB Local Bottler     □ VC Visitor Center     □ LO Lodge     □ VM Vending Machine     □ MA Marina     □ WH Water Hauler	Have there been reports of a water borne disease (2 or more people)?  Yes No Describe:
☐ MH Mobile Home Park ☐ XX Other ☐ MO Motel/Hotel	Have there been any changes to the water system since the last survey?  Yes No Describe:
Primary Service Category Description:	Are there any changes that are planned?
Comments:	☐ Yes ☐ No Describe:  Comments:
SUMMARY (Describe the water	er system in a paragraph or two)
<u> </u>	
The following abbreviations will be used throughout this document: NI = no   @ = potential significant deficiency.	o information, NA = not applicable, NR = not requested,

Page 2 of 40

#### SIGNIFICANT DEFICIENCIES

Significant deficiencies include, but are not limited to, defects in the design, operation, or maintenance, or a failure or malfunction of the sources, treatment, storage, or distribution system, that EPA determines to be causing, or have the potential for causing, the introduction of contamination into the water delivered to consumers. Please note the instructions for responding to significant deficiencies in the attached cover letter. Failure to provide a response to EPA could result in a violation.

#### **UNCORRECTED SIGNIFICANT DEFICIENCIES FROM PRIOR SANITARY SURVEY**

Numbered significant deficiencies and associated numbered photos if applicable

#### **RECOMMENDATIONS**

Numbered recommendations and associated numbered photos if applicable

CONSECUTIVE SYSTEMS
(i.e. does this PWS receive some or all of its finished water from another PWS?)

□ NA

Name of Wholesaler (System Receives Water From)	PWS ID of Wholesaler	Water Source Type	Connection Type
		☐ GW ☐ SW ☐ Mixed	☐ Permanent
		If mixed, does GW receive full SW Treatment? ☐ Yes ☐ No.	Seasonal, # Days/Yr:  Emergency Only
Comments:	Comments:	Type of residual disinfectant in water supplied:	Comments:
		☐ Chlorine ☐ Chloramines ☐ None	
		Comments:	
		☐ GW ☐ SW ☐ Mixed	☐ Permanent
Comments	Comments	If mixed, does GW receive full SW Treatment? ☐ Yes ☐ No.	Seasonal, # Days/Yr: Emergency Only
Comments:	Comments:	Type of residual disinfectant in water supplied:  Chlorine Chloramines None	Comments:
		Comments:	•
		☐ GW ☐ SW ☐ Mixed	☐ Permanent
		If mixed, does GW receive full SW Treatment? ☐ Yes ☐ No.	Seasonal, # Days/Yr: Emergency Only
Comments:	Comments:	Type of residual disinfectant in water supplied:  ☐ Chlorine ☐ Chloramines ☐ None	Comments:
		Comments:	
☐ Wholesaler ☐ Consecutive sys Comments:  If the consecutive system is Check the condition of the How often are inspections	stem  responsible: e principal master meter a s performed on the master e performed on the master t in any meter pits?	er connection(s) from the wholesale system?  and the pit for leaks or flooding and describe any co r meter connection? r meter connection(s)? /es	ncerns:
Name of hauler: WY Dept. of Agriculture licens Name of the water system sup Is there a water tight cap on the	se number:		
How does the operator check  Comments:	chlorine residual at the tir	ne of delivery?	

#### WHOLESALE SYSTEMS

(i.e. does this PWS supply finished water to another PWS?)

☐ NA

Name of Consecutive (System Supplies Water To)	PWS ID or State ID of Consecutive (if no PWS ID provide contact and address)	Population	Connection Type
			Permanent Seasonal, # Days/Yr Emergency Only Water is hauled (bulk water fill stations are described in Distribution section)
			☐ Permanent ☐ Seasonal, # Days/Yr ☐ Emergency Only ☐ Water is hauled (bulk water fill stations are described in Distribution section)
			☐ Permanent ☐ Seasonal, # Days/Yr ☐ Emergency Only ☐ Water is hauled (bulk water fill stations are described in Distribution section)
Comments:			
How many master meter con	nnections exist off the who	olesale system?	
Who is responsible for maint	enance of those connecti	on(s)?	
☐ Wholesaler			
☐ Consecutive s	ystem		
Comments:	<del>-</del> "		
·	•	n performed on the master meter conn	·
•		ince performed on the master meter co	· · · ——
_		the wholesale system is responsible?	☐ Yes ☐ No
If so, what is the source of th	ne standing water?		
Leaks @			
☐ Groundwater			
☐ Don't know @			
Comments:			

#### **SOURCE DATA**

ACTIVE (PHYSICALLY CONNECTED) WELLS AND WELL PUMPS (if well is GWUDI and fully treated as SW, these will be recommendations)

Well Name:			
Well owner (if different than system owner):			
Facility ID (from PWS inventory, e.g., WL01):			
Well Location: (well house, well pit, pitless adapter, combination, driveway/parking lot, other)			
Does system want this well to be considered inactive? @	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Adequately protected from vehicle damage? @	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
If well is located in a pit or vault, is the pit or vault completely watertight?	Yes No NA	Yes No NA	Yes No NA
If no, is the pit or vault completed with drainage or a sump pump for permanent or portable use? @ If applicable, indicate type (permanent pump, portable pump, or drainage)	☐ Yes ☐ No ☐ NA Type:	☐ Yes ☐ No ☐ NA Type:	☐ Yes ☐ No ☐ NA Type:
Is the pit located in a building?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
WY DEQ and/or WY SEO permit #:			
Are there any approved WY DEQ Chapter 12 variances for this well? If yes, describe what type of variance was approved.	☐ Yes ☐ No ——	☐ Yes ☐ No ——	☐ Yes ☐ No ——
Total Well Depth (ft):			
Depth range of shallowest casing perforations (ft):	to	to	to
Actual yield (gpm):			
Well log or Statement of Completion on site? (If yes, please copy or photograph and submit with report)	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Well Construction			
Does SW runoff drain away from the wellhead (including wells in pits or vaults)? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Does well casing terminate at least 12" above the concrete floor? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Does the well casing terminate at least 18" above the natural ground surface? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
What is the actual casing height (inches)?			
Any holes or openings observed in the well or its appurtenances? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
If yes, describe.			
Does the well have a sanitary seal with tightly bolted cap?  @ (May need operator to open well cap to verify; explain why if unable to verify)	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown
Is a gasket visible?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Does the well cap move?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Explain			
Is well vented (vent not required)?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
What is the height from the ground level to the screen of the vent (inches)?			
Does the vent terminate at or above the top of the casing or pitless unit? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Is vent facing downward? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Vent screened with #24 mesh? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Is there a source water sample tap for GWR compliance?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Where is the source water tap located?			
Is there an air release/vacuum relief valve (not required)?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA

Well Name:			
Discharge Piping Termination			
- In a downward position? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
- At least 8" above the floor? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
- Screened with #24 mesh? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Comments:			
Well Pumps			
Submersible Pump?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Other type of pump?  (if other, describe and indicate location in the comment field below)	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
NSF-60 lubricant used?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Operable and in good condition?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Maintenance program in place?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Is the external pump subject to flooding? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Spare parts available?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Emergency power available?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Comments			
Are there any sources of pollution near the wells which could possibly impact water quality? @ \ Yes \ No Examples: Septic systems, chemical storage/mixing facilities, agriculture activities, industrial activities, animal enclosures, cleaning supplies, oil/fuel, etc)			
If yes, indicate impacted well(s) and provide general location	and comments (please locate	e on aerial map and provide	photos):
How far from the well is the source of pollution located?			
Mice or other animals and their droppings in immediate area	(well house, vault, pit, etc.) @	Yes No	o
Are there seasonal variations in the quantity of the water?		☐ Yes ☐ No	o
Are there seasonal variations in the quality of the water?		☐ Yes ☐ No	o
How does the system handle sewage?		☐ Centralized	Sewage Treatment
		☐ Septic Syste	ems with Pumped Vaults
			ems with Leach Fields on on aerial if near well)
Comments:			

### **SOURCE DATA**

ACTIVE (PHYSICALLY CONNECTED) WELLS AND WELL PUMPS (if well is GWUDI and fully treated as SW, these will be recommendations)

Well Name:			
Well owner (if different than system owner):			
Facility ID (from PWS inventory, e.g., WL01):			
Well Location: (well house, well pit, pitless adapter, combination, driveway/ parking lot, other)			
Does system want this well to be considered inactive? @	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Adequately protected from vehicle damage? @	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
If well is located in a pit or vault, is the pit or vault completely watertight?	Yes No NA	Yes No NA	Yes No NA
If no, is the pit or vault completed with drainage or a sump pump for permanent or portable use? @ If applicable, indicate type (permanent pump, portable pump, or drainage)	☐ Yes ☐ No ☐ NA Type:	☐ Yes ☐ No ☐ NA Type:	☐ Yes ☐ No ☐ NA Type:
Is the pit located in a building?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
WY DEQ and/or WY SEO permit #:  Are there any approved WY DEQ Chapter 12 variances for this well? If yes, describe what type of variance was approved.	Yes	Yes	Yes
Total Well Depth (ft):			
Depth range of shallowest casing perforations (ft):	to	to	to
Actual yield (gpm):			
Well log or Statement of Completion on site? (If yes, please copy or photograph and submit with report)	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Well Construction			
Does SW runoff drain away from the wellhead (including wells in pits or vaults)? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Does well casing terminate at least 12" above the concrete floor? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Does the well casing terminate at least 18" above the natural ground surface? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
What is the actual casing height (inches)?			
Any holes or openings observed in the well or its appurtenances?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
If yes, describe.			
Does the well have a sanitary seal with tightly bolted cap?  @ (May need operator to open well cap to verify; explain why if unable to verify)	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown
ls a gasket visible?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Does the well cap move?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Explain			
Is well vented (vent not required)?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
What is the height from the ground level to the screen of the vent (inches)?			
Does the vent terminate at or above the top of the casing or pitless unit? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Is vent facing downward? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Vent screened with #24 mesh? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Is there a source water sample tap for GWR compliance?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Where is the source water tap located?			
Is there an air release/vacuum relief valve (not required)?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA

Well Name:			
Discharge Piping Termination			
- In a downward position? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
- At least 8" above the floor? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
- screened with #24 mesh? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Comments:			
Well Pumps			
Submersible Pump?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Other type of pump?  (if other, describe and indicate location in the comment field below)	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
NSF-60 lubricant used?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Operable and in good condition?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Maintenance program in place?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Is the external pump subject to flooding? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Spare parts available?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Emergency power available?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Comments			
Are there any sources of pollution near the wells which could possibly impact water quality? @ \ Yes \ No Examples: Septic systems, chemical storage/mixing facilities, agriculture activities, industrial activities, animal enclosures, cleaning supplies, oil/fuel, etc)			
If yes, indicate impacted well(s) and provide general location	and comments (please locate	on aerial map and provide	photos):
How far from the well is the source of pollution located?			
Mice or other animals and their droppings in immediate area	(well house, vault, pit, etc.)	@ Yes No	·
Are there seasonal variations in the quantity of the water?		☐ Yes ☐ No	·
Are there seasonal variations in the quality of the water?		☐ Yes ☐ No	·
How does the system handle sewage?		☐ Centralized	Sewage Treatment
		☐ Septic Syste	ems with Pumped Vaults
			ems with Leach Fields on on aerial if near well)
Comments:			
Confinents			

### **SOURCE DATA**

### **SPRINGS AND ASSOCIATED PUMPS**

(if spring is GWUDI and fully treated as SW, these will be recommendations)

Spring name:		Description of the intake to the spring collection box (i.e., how the spring
Spring owner if different than system owner:	<u>—</u>	water is collected and conveyed into the box):
Facility ID (from PWS Inventory, e.g., SPR01): _		Actual yield (gpm):
WY DEQ permit number:		Please copy or photograph any available construction diagrams or "asbuilts" and submit with the sanitary survey report.
WY SEO permit number:		Comments:
Are there any approved WY DEQ Chapter 12 var spring? If yes, describe what type of variance was		
SPRING COLLECTION CHAMBER	Yes No NA	SOURCE PUMPS
Are the spring collection area and spring box fenced to keep animals away? @		Location of the pump station:
Does surface water runoff drain away		How many pumps at the facility?
from the collection area? @		Type of pump(s):
Is there deep rooted vegetation around		Yes No NA
the spring collection area and spring box? @	шшш	Are the correct types of lubricants (NSF-60) used?
Describe:		Are pumps operable and in good condition?
Does the spring collection box have the following features:		Is there a maintenance program in operation?
Proper shoe box lid? @		Is the pump station subject to flooding? @ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Rubber gasket on the lid? @		Are spare parts available?
Air vents screened with #24 mesh? @		Is emergency power available?
Is the hatch locked? @		Comments:
Overflow screened with #24 mesh screen? @		
Does overflow have a free fall of at least 12 inches? @		
Is the spring collection chamber water tight to prevent inflow of unwanted surface water? @		
Comments:		
For any other hatches/manholes that are part of t (describe the condition of each)	he spring collection	system or on the line from the spring box to the tank or distribution system:
Proper shoe box lid? @ ☐ Yes ☐ No	Description and	location:
Rubber gasket on the lid? @	Description and	location:
Locked? @ Yes No	Description and	location:
Are there any sources of pollution near the spring (Examples: Septic systems, chemical storage/mix oil/fuel, etc)		bly impact water quality? @
If yes, indicate impacted spring(s) and provide ge	neral location and c	omments (please locate on aerial map and provide photos):
How far from the spring is the source of pollution	located?	
Mice or other animals and their droppings in imm	ediate area (spring	house, etc.) @
Are there seasonal variations in the quantity of th	e water?	☐ Yes ☐ No
Are there seasonal variations in the quality of the	water?	☐ Yes ☐ No
How does the system handle sewage?	☐ Cen	tralized Sewage Treatment
	☐ Sep	tic Systems with Pumped Vaults
	☐ Sep	tic Systems with Leach Fields (mark location on aerial if near spring)
Comments:		

### SOURCE DATA FOR INTAKE LOCATED IN INFILTRATION GALLERIES AND ASSOCIATED PUMPS $\hfill \square$ $_{\rm NA}$

INFILTRATION GALLERIES	SOURCE PUMPS
Infiltration gallery name:	Location of the pump station:
Infiltration gallery owner if different than system owner:	How many pumps at the facility?
Facility ID (from PWS Inventory, e.g., IG01):	Type of pump(s):
WY DEQ permit number:	Yes No NA
WY SEO permit number:	Are the correct types of lubricants (NSF-60) used?
Physical description:	Are pumps operable and in good condition?
Depth?	Is there a maintenance program in operation?
Actual yield (gpm):	Is the pump station subject to flooding?
Are there seasonal algal blooms present? ☐ Yes ☐ No	Are spare parts available?
Describe:	Is emergency power available?
Is an algaecide ever used to control algae? ☐ Yes ☐ No	Comments:
If yes, describe:	
Please copy or photograph any available construction diagrams or "as-builts" and submit with the sanitary survey report	
Are there any sources of pollution near the infiltration gallery (e.g., agr impact water quality? @   Yes   No	riculture/industrial activities, cleaning supplies, oil/fuel, etc.) which could
If yes, indicate impacted infiltration gallery(ies) and provide general lo	cation and comments (please locate on aerial map and provide photos):
Llau far fare the infiltration relies to the course of reliestics beat all	
How far from the infiltration gallery is the source of pollution located?	
Are there seasonal variations in the quantity of the water?	☐ Yes ☐ No
Are there seasonal variations in the quality of the water?	☐ Yes ☐ No
Comments:	

### SOURCE DATA FOR INTAKE LOCATED IN STREAMS, AND ASSOCIATED PUMPS $\ \square\ _{\mathrm{NA}}$

STREAMS	INTAKE PUMPS
Stream name:	Location of the pump station:
Facility ID (from PWS Inventory, e.g., IN01):	How many pumps at the facility?
WY DEQ permit number:	Type of pump(s):
WY SEO permit number:	Yes No NA
Is the area around the intake restricted?	Are the correct types of lubricants (NSF-60) used?
☐ Yes ☐ No	Are pumps operable and in good condition?
Are there multiple intakes located at different levels? ☐ Yes ☐ No Describe:	Is there a maintenance program in operation?
Are the intake(s) screened?	Is the pump station subject to flooding?
☐ Yes ☐ No	Are spare parts available?
Frequency of intake inspection:	Is emergency power available?
Date of last inspection:	Comments:
Are there seasonal algal blooms present? ☐ Yes ☐ No	
Describe:	
Is an algaecide ever used to control algae? ☐ Yes ☐ No	
If yes, describe:	
Please copy or photograph any available construction diagrams or "as-builts" and submit with the sanitary survey report	
Are there any sources of pollution near the stream (e.g., agriculture/in water quality? @ \ \ \ Yes \ \ \ \ No	dustrial activities, cleaning supplies, oil/fuel, etc.) which could impact
If yes, indicate impacted stream(s) and provide general location and of	comments (please locate on aerial map and provide photos):
How far from the stream is the source of pollution located?	
Are there seasonal variations in the quantity of the water?	☐ Yes ☐ No
Are there seasonal variations in the quality of the water?	☐ Yes ☐ No
Comments:	

## SOURCE DATA FOR INTAKE LOCATED IN RESERVOIRS, LAKES AND PONDS AND ASSOCIATED PUMPS

Reservoir or lake name: Facility ID (from PWS Inventory, e.g., IN01): WY DEQ permit number: \_\_ WY SEO permit number: \_\_\_ **INTAKE PUMPS RESERVOIRS** Is the area around the intake(s) restricted? Yes No Location of the pump station: \_\_\_ Are there multiple intakes located at different How many pumps at the facility? \_\_\_\_\_ levels? Yes ☐ No Type of pump(s): \_\_\_\_ Depth of intake(s): \_\_ Yes No NA Distance from shore: \_\_\_\_\_ Are the correct types of lubricants (NSF-60) used? Are the intake(s) screened? ☐ Yes ☐ No Are pumps operable and in good condition? Frequency of intake inspection: \_\_\_ Is there a maintenance program in operation? Date of last inspection: Is the pump station subject to flooding? Are there seasonal algal blooms present? ☐ Yes ☐ No Are spare parts available? Describe: Is emergency power available? Is an algaecide ever used to control algae? ☐ Yes ☐ No Comments: \_\_\_\_\_ If yes, describe: Please copy or photograph any available construction diagrams or "as-builts" and submit with the sanitary survey report Are there any sources of pollution near the reservoir/lake/pond (e.g., agriculture/industrial activities, cleaning supplies, oil/fuel, etc.) which could impact water quality? @ ☐ Yes □ No If yes, indicate impacted reservoir/lake/pond(s) and provide general location and comments (please locate on aerial map and provide photos): How far from the reservoir/lake/pond is the source of pollution located?

☐ Yes ☐ No
☐ Yes ☐ No

Are there seasonal variations in the quantity of the water?

Are there seasonal variations in the quality of the water?

Comments:

### **SOURCE DATA** EMERGENCY BACKUP SOURCE WATER $\ \square$ NA

Describe any backup source water possibly available during an emergency to the PWS, or indicate none:
Is the backup water source physically disconnected from the water system?   Yes   No  (if this is a raw water source and is still physically connected to the system, then stop filling out this section and complete the applicable source data section)
Backup source name:
Facility ID (from PWS Inventory, e.g., IN01, WL01, etc.):
WY DEQ permit number:
WY SEO permit number:
Are there seasonal algal blooms present? ☐ Yes ☐ No ☐ NA
Describe:
Is an algaecide ever used to control algae?   Yes No NA
If yes, describe:
Please copy or photograph any available construction diagrams or "as-builts" and submit with the sanitary survey report
Are there any sources of pollution near the emergency backup source (e.g., agriculture/industrial activities, cleaning supplies, oil/fuel, etc.) which could impact water quality? @  ☐ Yes  ☐ No
If yes, indicate impacted emergency backup source(s) and provide general location and comments (please locate on aerial map and provide photos):
How far from the emergency backup source is the source of pollution located?
Mice or other animals and their droppings in immediate area (well house, vault, pit, etc.).
Are there seasonal variations in the quantity of the water?
Are there seasonal variations in the quality of the water?
Comments:

### RAW WATER TO TREATMENT PLANT TRANSMISSION LINE $\hfill\Box$ $^{\rm NA}$

Name or designation:				
sw □ Gw □				
Point of origin:				
Point of termination:				
Approximate Length:				
Material:				
Are there any service connections off the raw water transn (Check yes only if the water system provides treated water		☐ Yes system)	□ No	
What does each connection serve?				
If used for potable water supply, is there a legal agree	ment or contract in place?	☐ Yes	☐ No	
If used for potable water supply, is the water treated a	t the connection and how?	☐ Yes	☐ No	
Name or designation:				
sw □ Gw □				
Point of origin:				
Point of termination:				
Approximate Length?				
Material:				
Are there any service connections off the raw water transmit (Check yes only if the water system provides treated water		☐ Yes system)	□ No	
What does each connection serve?				
If used for potable water supply, is there a legal agree	ment or contract in place?	☐ Yes	☐ No	-
If used for potable water supply, is the water treated a	t the connection and how?	☐ Yes	☐ No	-
DISTRIBUTIO	N BOOSTER PUMF	STATIO	ONS	
Location of the pump station:				
How many pumps at the facility?				
Type of pumps:				
	Yes No NA			
Are the correct types of lubricants (NSF-60) used?				
Is the pump station subject to flooding? @				
Are pumps operable and in good condition?				
Is there a maintenance program in operation?				
Are spare parts available?				
Is emergency power available?				

### HYDROPNEUMATIC TANKS □ NA

Type of Tanks	
☐ Pressure Tank that uses an air	compressor
Number of tanks:	
Location, Description:	
Dates put into service:	
Is there an operable pressure gauge?	☐ Yes ☐ No
Is there evidence of severe rust? @	☐ Yes ☐ No
Is there evidence of water leaks? @	☐ Yes ☐ No
Is there evidence of air leaks? @	☐ Yes ☐ No
Is there evidence of flooding (if in a vault)? @ \ \ \ NA	☐ Yes ☐ No
Is there a pressure relief valve?	☐ Yes ☐ No
Can tank(s) be by-passed for repair?	☐ Yes ☐ No
For any tank that uses an air compressor, is the tank age older than the life expectancy? @  (Manufacturer and model number)	
Comments:	

### GRAVITY TANKS □ NA

Complete for all tanks at ground water systems and consecutive systems. Also complete for finished water tanks at surface water / GWUDI systems. (Includes indoor clearwells and contact tanks or other finished water tanks.)				
Tank Name:				
Tank ID (from PWS inventory, e.g., ST01):				
Tank owner (if different than system owner):				
Location (indoor or outdoor):				
Date put into service				
Tank Type Below ground (buried or partially buried) Ground level Elevated (pedestal or standpipe)				
Tank is constructed of:  Concrete Steel Fiberglass Other				
What type of water is stored (GW systems only)?	☐ Treated ☐ Raw	☐ Treated ☐ Raw	☐ Treated ☐ Raw	
Storage volume (gallons)?				
Are there any approved WY DEQ Chapter 12 variances for this tank? If yes, describe what type of variance was approved.	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
Is the site subject to flooding? @	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
Can the tank be isolated from the system?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
Is the water level indicator accurate?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
Does the tank appear structurally sound? @	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
Does the foundation appear structurally sound? @	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
Are there any unprotected openings in the tank (breaches, leaks, etc)?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
Inspection and cleaning history				
If the tank is more than 10 years old, was it cleaned and inspected within the last 10 years? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
When and how was the tank last cleaned and inspected?		<del></del>		
Who performed the cleaning and inspection?		<del></del>		
How was the tank disinfected after cleaning? (NA if diver used)				
Surveyor able to view report and confirm date?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
If so, note major concerns and/or recommendations:				
Carcasses or other debris found in the tank?	Yes No NA	Yes No NA	☐ Yes ☐ No ☐ NA	
If yes, was EPA notified immediately?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Was the entry point for the carcass or debris eliminated?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Describe:			<del></del>	
Overflow				
Does the tank have an overflow separate from the vent? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	Yes No NA	
Is the overflow accessible for inspection? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Overflow has a #24 mesh screen OR a duckbill valve OR a properly sealed flapper valve with screen inside (EPA recommends a #24 mesh screen)? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Does the overflow line terminate no less than 12 inches but no more than 24 inches above the ground surface? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Does the overflow discharge over an inlet structure, splash plate, or engineered rip-rap? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Is the discharge visible?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Does the overflow have an air gap of 3 or more pipe diameters above the entrance to any storm or sanitary sewer? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	

Complete for all tanks at ground water systems and consecutive systems. Also complete for finished water tanks at surface water / GWUDI systems. (Includes indoor clearwells and contact tanks or other finished water tanks.)				
Tank Name:				
Comments about overflow:				
Drain Line				
Combined overflow and drain pipe? (If yes, skip drain questions)	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Is the drain accessible for inspection? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Is there #24 mesh screen on the drain pipe?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Does water accumulate in the drain discharge area?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Does the drain pipe have an air gap of 3 or more pipe diameters above the entrance to any storm or sanitary sewer? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Does the drain pipe terminate between 12 and 24 inches above a drainage area?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Does the drain pipe terminate above an inlet structure, splash plate, or engineered rip-rap?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Comments about drain:				
Air Vent				
Does the tank have a vent separate from the overflow? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Is the vent accessible for inspection? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
For above ground tanks (ground level or elevated/standpipe):				
Is there #24 mesh screen? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
If not #24 mesh screen, what size mesh is the screen?			<del></del>	
Does the tank have a vacuum/pressure relief valve or other mechanism to prevent tank damage?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Is the screen on the inside of the vent pipe to discourage vandalism?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Downturned vent: Is the vent at least 24" above the roof? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
For non-downturned vents: Is there a solid cover down to the bottom of the vent screen? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
For non-downturned vents: Is the screen at least 8" above the roof surface? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Below Ground Tanks (buried or partially buried)				
Is air vent covered with #24 mesh screen? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Is the screen on the inside of the vent pipe to discourage vandalism?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Does the air vent terminate downward? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Is the air vent at least 24" above the roof or ground surface (whichever is higher)? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Comments about air vent:				
Access Hatch				
Is the hatch accessible for inspection? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Is the hatch raised at least 24" above the roof or ground (whichever is higher) on below ground tanks (buried or partially buried) or 4" above the roof for above ground tanks (ground level or elevated)? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
What is the height of the access hatch above the roof or ground surface?	in	in	in	
Does the hatch have a shoe box lid? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Is the lid tight and sealed with a rubber gasket? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Is the hatch locked? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Comments about access hatch:				

Complete for all tanks at ground water systems and consecutive systems. Also complete for finished water tanks at surface water / GWUDI systems. (Includes indoor clearwells and contact tanks or other finished water tanks.)					
Tank Name:					
Comments:					

### GRAVITY TANKS

Complete for all tanks at ground water systems and consecutive systems Also complete for finished water tanks at surface water / GWUDI systems. (Includes indoor clearwells and contact tanks or other finished water tanks.)				
Tank Name:				
Tank ID (from PWS inventory, e.g., ST01):				
Tank owner (if different than system owner):				
Location (indoor or outdoor):				
Date put into service				
Tank Type Below ground (buried or partially buried) Ground level Elevated (pedestal or standpipe)				
Tank is constructed of:  Steel Fiberglass Other				
What type of water is stored (GW systems only)?	☐ Treated ☐ Raw	☐ Treated ☐ Raw	☐ Treated ☐ Raw	
Storage Volume (gallons)?				
Are there any approved WY DEQ Chapter 12 variances for this tank? If yes, describe what type of variance was approved.	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
Is the site subject to flooding? @	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
Can the tank be isolated from the system?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
Is the water level indicator accurate?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
Does the tank appear structurally sound? @	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
Does the foundation appear structurally sound? @	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
Are there any unprotected openings in the tank (breaches, leaks, etc)? @	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
Inspection and cleaning history				
If the tank is more than 10 years old, was it cleaned and inspected within the last 10 years? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
When and how was the tank last cleaned and inspected?				
Who performed the cleaning and inspection?				
How was the tank disinfected after cleaning? (NA if diver used)				
Surveyor able to view report and confirm date?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
If so, note major concerns and/or recommendations:	<del></del>	<del></del>		
Carcasses or other debris found in the tank?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	Yes No NA	
If yes, was EPA notified immediately?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	Yes No NA	
Was the entry point for the carcass or debris eliminated?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Describe:				
Overflow				
Does the tank have an overflow separate from the vent? @	Yes No NA	Yes No NA	Yes No NA	
Is the overflow accessible for inspection? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	Yes No NA	
Overflow has a #24 mesh screen OR a duckbill valve OR a properly sealed flapper valve with screen inside (EPA recommends a #24 mesh screen)? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Does the overflow line terminate no less than 12 inches but no more than 24 inches above the ground surface? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Does the overflow discharge over an inlet structure, splash plate, or engineered rip-rap? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Is the discharge visible?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Does the overflow have an air gap of 3 or more pipe diameters above the entrance to any storm or sanitary sewer? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	

Complete for all tanks at ground water systems and consecutive systems Also complete for finished water tanks at surface water / GWUDI systems. (Includes indoor clearwells and contact tanks or other finished water tanks.)				
Tank Name:				
Comments about overflow:				
<u>Drain Line</u>				
Combined overflow and drain pipe? (If yes, skip drain questions)	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Is the drain accessible for inspection? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Is there #24 mesh screen on the drain pipe?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Does water accumulate in the drain discharge area?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Does the drain pipe have an air gap of 3 or more pipe diameters above the entrance to any storm or sanitary sewer? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Does the drain pipe terminate between 12 and 24 inches above a drainage area?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Does the drain pipe terminate above an inlet structure, splash plate, or engineered rip-rap?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Comments about drain:				
Air Vent				
Does the tank have a vent separate from the overflow? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Is the vent accessible for inspection? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
For above ground tanks (ground level or elevated/standpipe):				
Is there #24 mesh screen? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
If not #24 mesh screen, what size mesh is the screen?	<del></del>		<del></del>	
Does the tank have a vacuum/pressure relief valve or other mechanism to prevent tank damage?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Is the screen on the inside of the vent pipe to discourage vandalism?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Downturned vent: Is the vent at least 24" above the roof? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
For non-downturned vents: Is there a solid cover down to the bottom of the vent screen? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
For non-downturned ventsis the screen at least 8" above the roof surface? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Below Ground Tanks (buried or partially buried)				
Is air vent covered with #24 mesh screen? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Is the screen on the inside of the vent pipe to discourage vandalism?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Does the air vent terminate downward@	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Is the air vent at least 24" above the roof or ground surface (whichever is higher)? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Comments about air vent:				
Access Hatch				
Is the hatch accessible for inspection? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Is the hatch raised at least 24" above the roof or ground (whichever is higher) on below ground tanks (buried or partially buried) or 4" above the roof for above ground tanks (ground level or elevated)? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
What is the height of the access hatch above the roof or ground surface?	<u>in</u>	<u>in</u>	i <u>n</u>	
Does the hatch have a shoe box lid? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Is the lid tight and sealed with a rubber gasket? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Is the hatch locked? @	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	
Comments about access hatch:				

Complete for all tanks at ground water systems and consecutive systems Also complete for finished water tanks at surface water / GWUDI systems. (Includes indoor clearwells and contact tanks or other finished water tanks.)				
Tank Name:				
Comments:				

# WATER TREATMENT DATA GROUNDWATER and CONSECUTIVE SYSTEMS THAT HAVE AVAILABLE TREATMENT $\hfill \square$ $_{\rm NA}$

Describe the steps (as many as necessary) of the treatment process in order from the water source to distribution:					
Plant Output (gal/	day)				
Design: Maximum:					
	- tment since the last sanitary su	ırvev?	] Yes □ No		
Describe:	anone carea are race carmary of				
	_ 				
	Step 1	Step 2	Step 3	Step 4	
	☐ Chemical Type: ☐ NSF 60 Certified?				
Process	☐ UV ☐ Filtration ☐ lon exchange ☐ Softener ☐ Other: ☐ Dosage:	☐ UV ☐ Filtration ☐ lon exchange ☐ Softener ☐ Other: ☐ Dosage:	☐ UV ☐ Filtration ☐ Ion exchange ☐ Softener ☐ Other: ☐ Dosage:	☐ UV ☐ Filtration ☐ lon exchange ☐ Softener ☐ Other: ☐ Dosage:	
Objective:	☐ Treatment of bacteria, viruses ☐ Turbidity removal ☐ Hardness removal ☐ Taste & odor removal ☐ Metals removal ☐ Other:	☐ Treatment of bacteria, viruses ☐ Turbidity removal ☐ Hardness removal ☐ Taste & odor removal ☐ Metals removal ☐ Other:	☐ Treatment of bacteria, viruses ☐ Turbidity removal ☐ Hardness removal ☐ Taste & odor removal ☐ Metals removal ☐ Other:	☐ Treatment of bacteria, viruses ☐ Turbidity removal ☐ Hardness removal ☐ Taste & odor removal ☐ Metals removal ☐ Other:	
Is this process required by EPA?	☐ Yes ☐ No				
Location of process?	☐ At Well ☐ At Treatment Plant ☐ Other:	☐ At Well ☐ At Treatment Plant ☐ Other:	☐ At Well ☐ At Treatment Plant ☐ Other:	☐ At Well ☐ At Treatment Plant ☐ Other:	
Is this process adequate to meet the objective?	☐ Yes ☐ No Explain:	☐ Yes ☐ No Explain:	☐ Yes ☐ No	☐ Yes ☐ No Explain:	
Frequency of use:	Permanent Seasonal Emergency Other:				
Redundant Equipment?	☐ Yes ☐ No				
Backup power?	☐ Yes ☐ No				
	Explain:	Explain:	Explain:	Explain:	

### Groundwater and Consecutive Systems UV Disinfection

		l l			
Yes	No				
		Is there a flow meter to monitor/alarm or a flow restrictor valve so the max flow rate is not exceeded? Describe how the system ensures the flow does not exceed max flow rate:			
		Is there an intensity sensor and alarm (visible/audible) to indicate low intensity?			
		Is there a UV lamp status alarm (visible/audible) to indicate lamps off?			
		Is there a UV lamp age counter/alarm?			
		Is there an automatic shut-off fail-safe solenoid valve so that water does not flow through the unit without adequate treatment?			
		Are there spare bulbs on hand?			
How	often	are the unit cleaned and the bulbs changed?			
,,					
	_				
	P	oint of use Treatment			
For P	For PWSs with required Point of Use (POU) treatment, ask the operator –				
Yes I	No N	A			
		Is the system adhering to the O&M Plan approved by EPA and conducting maintenance per the manufacturer's recommendations?			
		(i.e. Is the operator replacing POU filters in accordance with the maintenance plan or manufacturer recommendations).			
		☐ Is the system following its EPA-approved POU sampling plan?			
If No,	expla	in any difficulties:			
Comr	nents:				

# WATER TREATMENT DATA SURFACE WATER / GWUDISW SYSTEMS $\square$ NA

#### **General Information**

For each treatment plant indicated on the overall PWS schematic, update the separate treatment plant schematic. Show all treatment processes, recycle streams, turbidimeter locations, raw water and finished water sampling points, and disinfectant residual sampling points.				
In this section, the ¥ symbol indicates a potential violation to be determined by the EPA Ru	ule Manager			
Plant Location and Information  Plant / Office Location and Directions:  Date plant put online:  Modifications since the last survey? (if yes, describe):  Describe water sources treated by this plant:  Is treatment impacted by algae (describe)?	Plant Output (gal / day)  Design:  Summer Average:  Winter Average:  Maximum:			
, , <u> </u>				
Provide a brief description of the plant's treatment processes:	a flaumatora flau restrictora valvas etc).			
indicate all points in the treatment process where now is determined and describe now (i.e.	e. llowifieters, flow restrictors, valves, etc).			
Indicate all points in the treatment process where flow is determined and describe how (i.e. flowmeters, flow restrictors, valves, etc):  Please indicate all of the treatment plant waste disposal methods the plant currently employs:  Discharge to surface, sewer, or equivalent. Please describe:  On-site disposal. Please describe:  Land application  Discharge to lagoon/drying bed, with no recovery/recycling – e.g., downstream outfall  Backwash recovery/recycling: discharge to basin or lagoon and then to source  Backwash recovery/recycling: discharge to basin or lagoon and then to plant intake  Other. Please describe:				

#### **Pre-Filtration Processes**

Pre-Sed Basin:	☐ Yes ☐ No  Describe Type and indicate volume:  Chemicals added: ☐ Yes ☐ No (If yes, input chemical information in table below)					
Rapid Mix:	•••	☐ Yes ☐ No  Describe Type:  Chemicals added: ☐ Yes ☐ No (If yes, input chemical information in table below)				
Flocculation:	☐ Yes ☐ No  Describe Type:  Chemicals added: ☐	_	hemical information in table	below)		
Sedimentation:	☐ Yes ☐ No  Describe Type:  Chemicals added: ☐		hemical information in table	below)		
Other:	☐ Yes ☐ No  Describe:  Chemicals added: ☐	Yes ☐ No (If yes, inpu	ut chemical information in tal	ole below)		
Chemical Informa	tion (ask system to provid	e information from chemic	al supplier / manufacturer):			
Manufacture	er Product Name	Location Chemical Added	Max Dose Used (past 12 months):	NSF 60 Certified?	NSF 60 Max Allowable Dose	
				☐ Yes ☐ No		
				☐ Yes ☐ No		
				☐ Yes ☐ No		
				☐ Yes ☐ No		
				☐ Yes ☐ No		
NSF 60 certification and max. allowable dose info. can be found at: <a href="http://info.nsf.org/Certified/PwsChemicals/">http://info.nsf.org/Certified/PwsChemicals/</a> Does the system use a chemical containing epichlorohydrin or polyacrylamide that is dosed in excess of the NSF 60 Max Allowable Dose? ¥  Yes \sum No						

#### **Filtration Processes**

#### General

Indicate all types of filtration used:			
☐ Conventional ☐ Bags / Cartridges	☐ Slow Sand		
☐ Direct ☐ Membranes	☐ Diatomaceous Earth		
Which is the final filtration barrier?:			
Type and model # of combined filter effluent (CFE) turbidimeter:			
Location of CFE turbidimeter:			
Frequency of all turbidimeter calibration(s):			
Date(s) of last turbidimeter calibration(s) for all turbidimeters:			
Method used for all calibrations (primary formazin standard or other)? _			
Yes No			
□ □ Does the location of the CFE turbidimeter comply with EPA			
Are turbidimeters calibrated at least once every quarter? @			
□ □ Does the system use a primary standard to perform the cali	bration? @		
☐ Are CFE turbidity records available for the last 5 years? ¥			
Can CFE turbidities be recorded up to 5 NTU? @ How high	<del></del>		
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	() be identified so they are not counted for compliance? (if applicable)		
Finished water CFE turbidity (NTU): PWS measurement: Surve	eyor measurement:		
Conventional and Direct Filtration			
Filter Information Backwash Information			
# of filters:	What determines when backwash occurs?		
Type of filters:	Backwash rate (gpm/ft²):		
open to atmosphere  enclosed (pressure)	What is used for a backwash?		
Manufacturer name & model (if applicable):	☐ Air scour ☐ finished water ☐ raw water @		
Depth of each media (in):	Yes No		
Sand: Anthracite: Garnet:	☐ ☐ System starts up with clean filters (if not running 24/7)		
Total at least 24"? @ Yes ☐ No ☐	☐ ☐ System performs filter to waste (FTW) before putting		
Has operator observed loss of media?	filters back on line.		
Has the operator inspected the media for mudball formation?			
Average length of filter run (hours):			
Maximum filter loading rate (gpm/ft²):			
Is the filtration rate less than 2 gpm/sf (mono-media), 4 gpm/sf (dual media) or 6 gpm/sf (deep bed)? @			
☐ Yes ☐ No			

#### Conventional and Direct IFE and CFE additional information (only if final barrier)

IFE (	Questic	<u>ons</u>	
How are IFE records maintained? ☐ SCADA ☐ strip chart ☐ circular chart			
Yes	No		
		Does each filter have an individual effluent (IFE) turbidimeter? ¥ Types and model #s:	
		Are there alarms on each filter? Alarm set point (NTU):	
		Are IFE turbidities measured continuously, and recorded at least every 15 Minutes? ¥	
		Is IFE turbidity recorder (SCADA or charts) calibrated to record turbidities ≥ 2 NTU? @	
		Are IFE records kept for the last 3 years (as applicable)? ¥	
		Did any single filter IFE exceed 1.0 NTU in 2 consecutive 15 minute readings during the last 12 months? If yes, Indicate dates of all occurrences and copy those records.	
		a. If so, did they report to EPA and do a filter profile, if required? ¥	
		b. If this occurred 3 months in a row, did they conduct a filter self-assessment? ¥	
		Did any single filter IFE exceed 2.0 NTU in 2 consecutive 15 minute readings in the last 12 months? Indicate dates of all occurrences and copy those records.	
		a. If this occurred 2 months in a row for the same filter, did they report to EPA and have a CPE performed? ¥	
		For systems serving ≥ 10,000, did the IFE of any filter exceed 0.5 NTU in 2 consecutive 15 minute readings after being online 4 hours (following backwash or other reason offline) in the last 12 months? Indicate dates of all occurrences and copy those records.	
		a. If so, did they report to EPA and do a filter profile, if required? ¥	
<u>CFE</u>	Quest	i <u>ons</u>	
How	are CF	FE records maintained?  SCADA strip chart circular chart	
Yes	No		
		Based on these records, has the system consistently met the CFE turbidity requirements for this type of filtration during the last 12 months? ¥ (0.3 NTU 95% of each month, 1 NTU max) If no, indicate date of all occurrences and copy those records:	
Log r	emova	al credited for this type of filtration barrier for: Giardia: Viruses: Cryptosporidium:	
Conventional and Direct (only if filter backwash, thickener supernatant, or sludge dewatering liquid is recycled)			
Desc	ribe w	here recycle enters treatment process:	
Yes	No		
		Is recycle location before the TOC monitoring point?	
		Are records of recycle practices kept in an acceptable format for each year that includes all of the required elements (e.g., avg and max times/flows of backwashes; recycle treatment/equalization [chemical addition; hydraulic loading rates])? ¥	

#### Membranes

Number of membrane skids: Configuration: ☐ parallel ☐ series			
Membrane type: ☐ microfiltration ☐ ultrafiltration ☐ nanofiltration ☐ RO			
Manufacturer: Model #: Absolute pore size:			
Each skid capacity (gpm):			
Yes No			
Has the PWS consistently been meeting the CFE turbidity requirements for this type of filtration? (0.3 NTU 95% of each month, 1 NTU max) ¥			
☐ Are direct integrity tests (DIT) performed at least daily (specify ☐ pressure or ☐ vacuum applied)? ¥ If yes, how often? ¥			
☐ For continuous indirect integrity testing, does each unit/skid have its own online turbidimeter? ¥			
a. Is filtrate turbidity monitored continuously and recorded at least once every15 minutes? ¥			
b. Is it set with a trigger level of 0.15 NTU for > 15 minutes (a DIT should be initiated when filtrate turbidity exceeds this level)?			
☐ ☐ Do operators know how to check and repair membranes when a DIT fails? @			
How/when are membranes cleaned?			
Are spare membrane cassettes available? ☐ Yes ☐ No			
Is there adequate storage of cleaning chemicals in case of emergency weather?			
Log removal credited for this type of filtration barrier for: Giardia: Viruses: Cryptosporidium:			
Bags / Cartridges			
Number of parallel filter trains: Each train capacity (gpm):			
Number of parallel filter trains: Each train capacity (gpm):  Pre Filter (if applicable)			
Pre Filter (if applicable)			
Pre Filter (if applicable)  Housing: Manufacturer: Model:			
Pre Filter (if applicable)  Housing: Manufacturer: Model:  Bag / Cartridge Filter: Manufacturer: Model: # per housing:			
Pre Filter (if applicable)  Housing: Manufacturer: Model: # per housing: # per ho			
Pre Filter (if applicable)   Housing: Manufacturer:   Bag / Cartridge Filter: Manufacturer:   # per housing:   Final Filter Model:   Housing: Manufacturer: Model:			
Pre Filter (if applicable)  Housing: Manufacturer: Model: # per housing:  Bag / Cartridge Filter: Manufacturer: Model: # per housing:  Final Filter  Housing: Manufacturer: Model: # per housing:  Bag / Cartridge Filter: Manufacturer: Model: # per housing: # per			
Pre Filter (if applicable)  Housing: Manufacturer: Model:  Bag / Cartridge Filter: Manufacturer: Model: # per housing:   Final Filter  Housing: Manufacturer: Model:  Bag / Cartridge Filter: Manufacturer: Model: # per housing:   Manufacturer's recommended maximum flow rate (gpm):			
Pre Filter (if applicable)  Housing: Manufacturer: Model:  Bag / Cartridge Filter: Manufacturer: Model: # per housing:  Final Filter  Housing: Manufacturer: Model:  Bag / Cartridge Filter: Manufacturer: Model:  Manufacturer: Model: # per housing:  Manufacturer's recommended maximum flow rate (gpm):  Pore size rating (microns - indicate absolute or nominal):  Replacement frequency of all filters:			
Pre Filter (if applicable)  Housing: Manufacturer: Model:  Bag / Cartridge Filter: Manufacturer: Model: # per housing:  Final Filter  Housing: Manufacturer: Model: # per housing:  Bag / Cartridge Filter: Manufacturer: Model: # per housing:  Manufacturer's recommended maximum flow rate (gpm):  Pore size rating (microns - indicate absolute or nominal):			
Pre Filter (if applicable)  Housing: Manufacturer: Model:  Bag / Cartridge Filter: Manufacturer: Model: # per housing:  Final Filter  Housing: Manufacturer: Model:  Bag / Cartridge Filter: Manufacturer: Model:  Manufacturer's recommended maximum flow rate (gpm):  Pore size rating (microns - indicate absolute or nominal):  Replacement frequency of all filters:  Yes No  Has the PWS consistently been meeting the CFE turbidity requirements for this type of filtration? (1 NTU 95% of each month,			
Pre Filter (if applicable)  Housing: Manufacturer: Model:  Bag / Cartridge Filter: Manufacturer: Model: # per housing:  Final Filter  Housing: Manufacturer: Model: # per housing:  Bag / Cartridge Filter: Manufacturer: Model: # per housing:  Manufacturer's recommended maximum flow rate (gpm):  Pore size rating (microns - indicate absolute or nominal):  Replacement frequency of all filters:  Yes No  Has the PWS consistently been meeting the CFE turbidity requirements for this type of filtration? (1 NTU 95% of each month, 5 NTU max) ¥			
Pre Filter (if applicable)  Housing: Manufacturer: Model:  Bag / Cartridge Filter: Manufacturer: Model: # per housing:  Final Filter  Housing: Manufacturer: Model:  Bag / Cartridge Filter: Manufacturer: Model:  Bag / Cartridge Filter: Manufacturer: Model:  Manufacturer's recommended maximum flow rate (gpm):  Pore size rating (microns - indicate absolute or nominal):  Replacement frequency of all filters:  Yes No  Has the PWS consistently been meeting the CFE turbidity requirements for this type of filtration? (1 NTU 95% of each month, 5 NTU max) ¥  Are there working pressure gauges before and after filters? @			
Pre Filter (if applicable)  Housing: Manufacturer: Model: # per housing:  Final Filter  Housing: Manufacturer: Model: # per housing:  Bag / Cartridge Filter: Manufacturer: Model: # per housing:  Bag / Cartridge Filter: Manufacturer: Model: # per housing:  Manufacturer's recommended maximum flow rate (gpm):  Pore size rating (microns - indicate absolute or nominal):  Replacement frequency of all filters:  Yes No Has the PWS consistently been meeting the CFE turbidity requirements for this type of filtration? (1 NTU 95% of each month, 5 NTU max) ¥  Are there working pressure gauges before and after filters? @  Does the PWS keep daily records of monitoring the pressure drop across the filters, and know when to change out filters? @  Has the final filter or pre/final filter combination been demonstrated to remove at least 99.9% of Cryptosporidium or equivalent size			

#### Diatomaceous Earth Filters

Number of filters: Pressure System				
Filter manufacturer/model # (if applicable):				
Each filter capacity (gpm):				
Describe pre-coat and body feed systems:				
Has the PWS consistently been meeting the CFE turbidity requirements for this type of filtration? (1 NTU 95% of each month, 5 NTU max) ¥ ☐ Yes ☐ No				
Describe precoat and body feed systems:				
Maximum filter loading rate (gpm/ft²):				
Is the filtration rate less than 1.5 gpm/sf? @ ☐ Yes ☐ No				
Maximum head loss allowed:				
What determines when backwash occurs? ☐ time ☐ turbidity ☐ automatic ☐ head loss				
Log removal credited for this type of filtration barrier for: Giardia: Viruses: Cryptosporidium:				
Slow Sand Filtration				
Number of filters: Each Filter capacity (gpm):				
What is rate of filtration (gpm/ft)?				
Is the filtration rate less than 0.1 gpm/sf? @ ☐ Yes ☐ No				
Yes No				
☐ Has the PWS consistently been meeting the CFE turbidity requirements for this type of filtration? (1 NTU 95% of each month, 5 NTU max) ¥				
☐ ☐ Is turbidity of raw water to filters always <10 NTU? @				
☐ ☐ Is water depth over sand at least 3 feet during operation? @				
☐ ☐ Can plant meet design capacity with one unit out of service?				
☐ ☐ Do they ripen after scraping (filter to waste) and how long?				
☐ Is head loss across filters monitored and used for process control? @ If yes, how is the head loss monitored?				
How often is each unit scraped?				
Log removal credited for this type of filtration barrier for: Giardia: Viruses: Cryptosporidium:				

#### **Disinfection Processes**

#### General

UV Disinfection  Delication LIV manufactures/model #4					
Daint of applications LIV manufacturar/model #4					
Point of application: UV manufacturer/model #:					
Validated maximum flow (gpm): Validated UV dosage (mJ/cm²):					
Log inactivation credited based upon validated dosage (use table below): Giardia: Cryptosporidium:					
Table 1. UV Dose Requirements in Millijoules per Square Centimeter (mJ/cm²)					
Target Log Inactivation					
Pathogen 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0					
Cryptosporidium         1.6         2.5         3.9         5.8         8.5         12         15         22					
Giardia         1.5         2.1         3.0         5.2         7.7         11         15         22					
Viruses ** ** ** ** ** ** **					
Source: 40 CFR 141.720(d)					
** UV not credited with virus inactivation by EPA R8 for SW/GU systems					
Yes No					
□ □ Does PWS keep records of UV reports sent monthly to EPA? ¥					
□ □ Does public water system's Emergency Response Plan address breakage of UV lamps? (Mercury hazard: OSHA guidelines 1910 Subparts H, I, Z, Response to breakage, Cleanup and disposal)					
UV Disinfection – less than 40 gpm					
Yes No					
☐ ☐ Is there a flow meter to monitor/alarm or a flow restrictor valve so the max flow rate is not exceeded? @ Describe how the systems the flow does not exceed max flow rate:	em				
☐ ☐ Is there an intensity sensor and alarm (visible/audible) to indicate low intensity? @					
☐ ☐ Is there a UV lamp status alarm (visible/audible) to indicate lamps off? @					
☐ ☐ Is there a UV lamp age counter/alarm? @					
☐ ☐ Is there an automatic shut-off fail-safe solenoid valve so that water does not flow through the unit without adequate treatment?	<u>D</u>				
□ □ Does this UV unit have an NSF Standard 55A Certification or has it been validated according to the requirements of the 2006 U Disinfection Guidance Manual? ¥ (leave blank if unknown)	/				
☐ Are there spare bulbs on hand?					
How often is the unit cleaned and the bulbs changed?					

#### UV Disinfection - greater than 40 gpm

How is unit monitored? ☐ Intensity Setpoint Method ☐ Calculated Dose Method				
Yes No				
☐ ☐ Is the calibration of the UV intensity sensors checked at least monthly using a reference sensor? @ How frequently are calibration checks performed?				
☐ ☐ Is the calibration of the UV transmittance analyzer checked at least weekly with a benchtop analyzer (Calculated Dose Method only)? @ How frequently are calibration checks performed?				
☐ ☐ Is there a calibrated flowmeter to ensure max flow rate is not exceeded? @				
Are daily operational records kept of flow rates/production, run time, lamp status, UV intensity, UVT and UV dosage? ¥ (These should be monitored continuously and recorded at least once/4 hours. Small systems (less than 500 population) are allowed to record one time each day.)				
□ □ Does the operator know how to identify an off-specification event and report it to the EPA? @				
☐ ☐ Does the system alarm when an off-specification event occurs? @				
☐ ☐ Are there spare bulbs on hand?				
Chemical Disinfection  Chlorine and Chloramines				
Type: Dosage: (lb / day or mg/L) NSF 60 Certified? ☐ Yes ☐ No				
Point of application:				
Where does the PWS measure disinfectant residual for compliance with the SWTR requirement of ≥ 0.2 mg/L at the POE?				
Is this before the 1 <sup>st</sup> user of the water? ¥ ☐ Yes ☐ No				
How is residual measured? ☐ continuous ☐ grab Equipment / manufacturer model #:				
What type of measurement is taken? ☐ free ☐ total (systems that use chloramination must measure total)				
Chlorine residual at POE (mg/L): PWS measurement: Surveyor measurement:				
Are the two measurements within 0.1 mg/L or 15% of one another (whichever is larger)? @ ☐ Yes ☐ No				
Yes No				
☐ ☐ Is there redundant disinfection equipment?				
☐ ☐ Is there emergency power for the disinfection equipment?				
☐ ☐ If measuring residual continuously, is the PWS conducting weekly verifications with a grab sample measurement? @				
Ozone				
Number of Ozone generators: Percent ozone being generated (%):				
Where is the ozone applied? Where is residual measured?				
Ozone residual (%): Ozone residual (mg/L):				
Describe the purpose of the ozone addition:				
Are all applicable residual monitors operational?				
Are excess ozone destructors operational?				
Is there a preventive maintenance program for the generators?				
Is a SCBA or supplied-air respirator available for the operators when working with ozone?				
Are operators exposed to ozone levels above 0.1 mg/L?				
Does the system monitor bromate concentration at point of entry? ¥ ☐ Yes ☐ No				

#### **Chlorine Dioxide**

Number of Chlorine Dioxide generators:			
Where is the Chlorine Dioxide applied? Where is Chlorine Dioxide residual measured?			
Chlorine Dioxide residual (mg/L):			
Describe the purpose of the Chlorine Dioxide addition:			
Are all applicable residual monitors operational?			
Is there a preventive maintenance program for the generators?			
Are operators exposed to Chlorine Dioxide levels above 0.1 ppm?	_		
Yes No			
☐ ☐ Does the system monitor chlorine dioxide daily at point of e	ntry? ¥		
☐ ☐ Does the system monitor chlorite at point of entry daily and	monthly in the distribution system? ¥		
Chemical Disinfection – Inactivation Calculations			
If the PWS performs ongoing daily or weekly CT calculations, use their a a conservative calculation for each inactivation segment.	actual data to document inactivation in the section below. Otherwise, do		
Identify location of 1st user:			
Summer Calculations	List the volume of each segment using minimum* operating heights of tanks:		
Lowest* disinfectant residual and where measured (mg/L):	Total logs <i>Giardia</i> inactivation from all chemical disinfection		
Water temperature (lowest*): <u>°C</u>	segments:		
Water pH (highest*):	Total logs virus inactivation from all chemical disinfection segments:		
Maximum* flow through segment:gpm			
Describe each segment and list appropriate baffling factor:			
Winter Calculations List the volume of each segment using minimum* operating height of			
Lowest* disinfectant residual and where measured (mg/L): tanks:			
Water temperature (lowest*):°C			
Water pH (highest*): Total logs virus inactivation from all chemical disinfection segments:			
Maximum* flow through segment:gpm			
Describe each segment and list appropriate baffling factor:			
* Llea data from avetem's appairs CT calculations if available. Values of	pould correlate to the evetem's lowest calculated inactivation levels		
* Use data from system's ongoing CT calculations if available. Values st during the specified season in the previous year.	louid correlate to the system's lowest calculated mactivation levels		
Chemical Disinfection – Disinfection Profiling (if system is exempt,	skip section)		
[ ,			
Yes No	( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )		
□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□	tains a year of weekly log inactivation calculations (<10,000 pop.) or a		
☐ ☐ Did the PWS make a significant change (new disinfectant; r	new location; etc.) to disinfection practices after 7/1/03 or 1/1/04?		
☐ ☐ If yes, was EPA consulted? Describe the change and date made: ¥			
When was the profile conducted? to			
Lowest monthly average log inactivation observed from the profile (month	th/value): Giardia: Viruses:		

#### **Overall Inactivation / Removal Calculations**

#### Viruses / Giardia

Viruses	Giardia	
Logs Removal (filtration)	Logs Removal (filtration)	
Logs chemical inactivation (lowest value from Summer / Winter calculations)	Logs chemical inactivation (lowest value from Summer / Winter calculations)	
Logs UV inactivation	Logs UV inactivation	
Logs other removal or inactivation	Logs other removal or inactivation	
Total logs inactivation / removal	Total logs inactivation / removal	
≥ 4 logs? @	≥ 3 logs? @	
Cryptosporidium		
Committed to install maximum treatment?		
Total logs Cryptosporidium inactivation / removal required based on ma	x treatment, bin # or classification:	
Date treatment required by: Toolbox Components Utilized:	<u> </u>	
Logs Removal (filtration)		
Logs chemical inactivation		
Logs UV inactivation		
Logs other Toolbox Components		
Total logs inactivation / removal		
≥ required logs? ¥ ☐ Yes ☐ No		

### WATER TREATMENT DATA (FOR ALL SYSTEMS)

## CORROSION CONTROL

Does this PWS add chemicals for Corrosion Comments:	Control? Yes	No 🗆 NA	
Chemical added:	NSF 60 Certified?	Dosage at Treatment Plant	Added Continuously or Seasonally
	☐ Yes ☐ No		☐ Continuously ☐ Seasonally
	☐ Yes ☐ No		☐ Continuously ☐ Seasonally
	☐ Yes ☐ No		☐ Continuously ☐ Seasonally
	☐ Yes ☐ No		☐ Continuously ☐ Seasonally
Do you monitor Corrosion Control chemical Comments:	residuals, pH or anything e	else in the distribution system to e	valuate the process? ☐ Yes ☐ No

#### **DISTRIBUTION DATA**

Please provide a brief description of the distribution system, including source to use piping:			
What are the location and estimated linear feet of asbestos pipe in the distribution system?			
Have lines broken due to freezing?			
Are lines properly disinfected after repairs are made? @			
Is there at least 35 psi pressure in the distribution system at peak normal flow?   Yes  No  No			
Is there at least 20 psi at all points in the system at all times? @ Yes No			
Total number of days of storage (Summer)?  Total number of days of storage (Winter)?  Yes No NA  Is the storage capacity adequate to meet current needs? Is the storage capacity adequate to meet future needs?  Comments:			
Are there any bulk water supply/fill stations attached to this system?   Yes No No No (note to surveyor: if yes, check each facility, note its condition and provide photos)			
Station name (if applicable)  Location  Appropriate Air Gap or RPZ?			
Air Gap RPZ Neither @	@		
Air Gap RPZ Neither @	@		
Air Gap RPZ Neither @	@		
Comments:			
Are there any air relief valves in vaults/pits located in the distribution system?			
Location, length, number, and flushing frequency for dead ends in the system:			
Are distribution system ("as-built") drawings maintained (e.g., revised to show replacement or repair?)			
For systems that add a chemical disinfectant or receive disinfected water from a wholesaler:  NA   Yes No  Is test equipment available for measuring the chlorine residual in the distribution system? Describe equipment:  Are reagents up to date?  Does the operator know how to properly measure chlorine residual?  Measured chlorine residual distribution system location:  Indicate residual value measured at this distribution system location: By Surveyor: (mg/L) By PWS: (mg/L)  Indicate if free or total chlorine was measured:			
It is recommended that a minimum residual of 0.5 mg/L total chlorine or 0.2 mg/L free chlorine be maintained.			

### **CROSS CONNECTION CONTROL**

Yes	No	NA	
			<b>Does each severe hazard connection</b> have the appropriate reduced pressure backflow assembly installed at the meter/service connection and approved air gap (twice the size of the supply pipe diameter but always greater than one inch)? Describe each severe hazard connection and its location. @
			Note: Severe hazard connections include radioactive materials processors, nuclear reactors, and sewage treatment plants/pump stations.
			<b>Does each high hazard connection</b> in the <u>treatment plant</u> or <u>distribution system</u> have the appropriate air gap or reduced pressure backflow assembly installed? Describe each high hazard connection and its location. @
			Note: High hazard connections include hospitals, medical/dental facilities, laboratories, mortuaries, large taxidermies, chemical suppliers/processing facilities, petroleum plants, food processing facilities, wastewater treatment plants, and docks, car washes, dry cleaners, direct connections to raw or non-potable water, and any service connection with an unapproved auxiliary supply.
			Do <b>trailers or mobile homes connected directly to the PWS</b> via a yard hydrant have a residential dual check valve at each connection?
			Are any <b>frost-free hydrants</b> that drain into the soil directly connected to this PWS?
			Are there any leaking system components in the water system observed by the surveyor that are not previously noted? @
			Explain where and what was leaking:
			At Community PWS, do all low hazard connections have the appropriate dual check valve assemblies installed at the meter or service connection?
			Note: Low hazard connections include mobile home parks, farms/dairies, ranches, and shopping centers.
			For Non-community Systems, do the following connections have the indicated type of backflow prevention assemblies?
			- Stock tanks – approved air gap or atmospheric vacuum breaker at the tank? @
			- Threaded yard hydrants – pressure vacuum breaker, atmospheric vacuum breaker or double check valve assembly? ———
			Does the water supplier have a record keeping program and management procedures to ensure:
			- The installation and certification by test or inspection (as applicable) of all backflow preventers (BFPs) at new service connections
			- The annual certification by a certified tester of all high-hazard BFPs at service connections.

### **SAFETY**

Personnel Safety			
Yes	No	NA	
			Are all personnel trained in proper handling of all utilized chemicals and materials?
			Are adequate masks, protective clothing, and safety equipment provided?
			Does the operator understand relevant Occupational Safety and Health Administration (OSHA) regulations (e.g., confined space, hazard communication, trenching/shoring, lock out/tag out)?
Chlo	rine G	as Sa	afety NA 🗆
			Are there chlorine warnings posted on the outside of chlorine room doors?
			- Do the doors open outward?
			- Do they open to the exterior of the building?
			- Are chlorine room doors equipped with crash bars?
			- Are chlorine room doors equipped with viewports?
			Is there a leak detector in the chlorine room with an audible alarm?
			Are chlorine feed and storage areas isolated from other facilities?
			Are chlorine areas adequately ventilated?
			Are all chlorine cylinders adequately restrained?
			Are self-contained breathing apparatus (SCBA) available for use in chlorine emergencies?
			- Are they in good working condition?
			- Are water system personnel adequately trained in the use and maintenance of the SCBA?
			- Where are the SCBA stored?
			Are chlorine leak kits available and are all personnel trained in their proper use?
Cher	mical S	Safety	⊻ NA □
Yes	No	NA	
			Are oxidizers, corrosives, and flammables stored in separate areas and in closed, marked containers?
			Are flammables stored in appropriate containers and cabinets away from combustion sources?
			Is there adequate ventilation in the areas where solvents, aerosols, and chemical feeders are in use?
			Are bulk storage areas physically isolated from treatment areas to prevent spills from entering treated or untreated water?
			Is the fire department familiar with the facilities and their contents?

### **MANAGEMENT DATA**

Yes	No	NA					
			Are there rules governing new hookups to protect the integrity of this water system?				
			Are DEQ construction specifications followed?				
			Is the treatment plant being properly operated to prevent inadequately treated water from being sent to the distribution system? @				
			Does the system have arrangements in place to assure prompt supply and repair service?				
			Does the system have a current operations and maintenance manual which describes all procedures, equipment, sampling schedules and inspection data?				
			Is there a schedule for routine preventative maintenance for all facilities and equipment?				
			Does the system (treatment plant, finished water storage) have security measures in place (fencing, locks, lighting, alarms, etc.)?				
			Does the system have an emergency response plan (ERP) – system does not need to show the surveyor the ERPthat includes: @				
			- Emergency contact phone numbers?				
			- Procedures to respond to a pressure loss/water outage?				
			- Procedures to respond to a water contamination incident?				
			Is the ERP accessible to the operator on-site?				
			Is the system part of the state's WARN network?				
			Have you evaluated possible impacts to your system from extreme weather events?				
			If yes, what was the outcome?				
			Are you interested in training on extreme weather events?				
			Have you evaluated your facilities to see if they are in the 100 and 500 year flood plains?				
			If yes, what was the outcome?				
What percentage of the utility's power comes from your own renewable energy sources?							
% wi	% wind: % solar: % hydro:						

### **MONITORING AND RECORDS**

Revised Total Coliform Rule (RTCR) monitoring (all systems)						
Yes	No					
			Does the operator know how to collect samples for total coliform analysis? (Review operator sampling procedure at time of survey to confirm)			
			Does the operator know what to do in the event of a total coliform "unsafe" result? (Consult the "RTCR/E-coli Positives" link on the Drinking Water Online site: <a href="http://www2.epa.gov/region8-waterops">http://www2.epa.gov/region8-waterops</a>			
			Are extra bottles available in case of need for repeat coliform sampling?			
			Does the system have an RTCR sampling plan on file and available for the surveyor's review?			
			Ask the operator - Is the system following their RTCR sampling plan? If No, explain any difficulties			
If subject to the Ground Water Rule (GWR), does the operator know:						
Yes	No	NA				
			Within 24 hours of being notified of a <i>routine coliform</i> positive sample result, they must collect one triggered source water sample for <i>every</i> routine coliform positive sample at each active ground water source (e.g., three routine coliform positive samples requires the operator to collect three source water samples from <i>each</i> ground water source)?			
			They will need to submit both:			
			- Repeat samples under the RTCR (utilizing their regular lab form)?			
			- Source water samples utilizing the Ground Water Rule Sample Collection Form located on the Drinking Water Online site (http://www2.epa.gov/region8-waterops)?			
			Where to sample if they are required to sample all of their active ground water sources?			
			Are extra bottles available in case of the need for GWR source sampling?			
For Community and NTNC systems (including consecutives):						
Yes	No	NA				
			Is there a Disinfection Byproducts Rule Monitoring Plan on-site available for the surveyor's review?			
			- Is it up-to-date reflecting the current distribution system?			
			- What types of maximum residual disinfectant levels (MRDLs) are measured (free, total or combined chlorine)?			
			Does the system have a Lead & Copper sample siting plan on file and available for the surveyor's review?			
			- Is it up to date?			
For All Systems:						
Yes	No	NA				
			Does the operator know the location of each entry point to the distribution system?			
			Does the operator know how to properly label samples taken from the entry points?			
			Has the PWS completed the monitoring that is specified in the EPA-provided monitoring schedule so far for this calendar year?			
			Are copies of all monitoring results filed and readily accessible?			
			Is the operator familiar with the Drinking Water Online ( <a href="http://www2.epa.gov/region8-waterops">http://www2.epa.gov/region8-waterops</a> ) and Drinking Water Watch ( <a href="https://sdwisr8.epa.gov/Region8DWW/JSP/loginForm.jsp">https://sdwisr8.epa.gov/Region8DWW/JSP/loginForm.jsp</a> ) websites created for their benefit?			