## **2020 EPA Region 8 WY SANITARY SURVEY FORM**

# INVENTORY

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| --- | --- | --- | --- |
| **DATE OF SURVEY:** | **COUNTY:** | **SURVEYOR NAME:** | |
| **PWS ID:** | **SYSTEM NAME:** | | |
| System representatives (including titles) present at survey:  Others present:  Comments: | | **EMERGENCY CONTACT**  Emergency Contact Name:  Emergency cell phone: (   )  Emergency email address:  Title:  Street:  City:       State:       County:       Zip: | |
| **SYSTEM OWNER OR MUNICIPAL LEGAL REPRESENTATIVE**  Addressee Name:  Title:  Company (if Corporation, name of Corporation):  Street:  City:       State:       Zip:  Owner Phone: (   )        Fax: (   )  Email Address: | |
| **PRIMARY ADMINISTRATIVE CONTACT**  **(to receive ALL correspondence from EPA)**  Addressee:  Title:  Street:  City:       State:       County:       Zip:  Administrative Contact Phone: (   )        Fax: (   )  Email Address: | |
| **ADDITIONAL CONTACT**  **(if any)**  Addressee:  Title:  Street:  City:       State:       County:       Zip:  Contact Phone: (   )        Fax: (   )  Email Address:  Comments: | | **PUBLIC WORKS DIRECTOR,**  **CITY ENGINEER and/or WATER PLANT SUPERINTENDENT**  Addressee:  Title:  Street:  City:       State:       County:       Zip:  Contact Phone: (   )        Fax: (   )  Email Address: | |
| **DESIGNATED OPERATOR OF SYSTEM**  Name:  Certified Operator? @  Yes  No  TNC System (not required)  Treatment Cert. Level:       Distribution Cert. Level:  Treatment Cert. Exp. Date:       Distribution Cert. Exp. Date:  Cert. Authority:       Cert. Authority:  Phone: (   )  Email Address:  Contract Operator\*?  Yes  No  Date contract ends:  Comments:  **Go to:** <http://deq.wyoming.gov/wqd/operator-certification/>  **Click on:** Check Facility Records then **Click on:** Check Operator Records | | **ALTERNATE OPERATOR**  Name:  Certified Operator?  Yes  No  Not required  Treatment Cert. Level:       Distribution Cert. Level:  Treatment Cert. Exp. Date:       Distribution Cert. Exp. Date:  Cert. Authority:       Cert. Authority:  Phone: (   )  Email Address:  Comments:  **Go to:** <http://deq.wyoming.gov/wqd/operator-certification/>  **Click on:** Check Facility Records **then Click on:** Check Operator Records | |
| **WATER SYSTEM CLASSIFICATION**  **for operator certification**  System Treatment Classification Level:  System Distribution Classification Level:  Comments:  **Go to:** <http://deq.wyoming.gov/wqd/operator-certification/>  **Click on:** Check Facility Records | | **WATER SYSTEM CLASSIFICATION**  **from PWS Inventory**  C = Community  NTNC = Non-Transient Non-Community  NC = Transient Non‑Community  Comments: | |
| **SYSTEM PHYSICAL ADDRESS**  Street:  City:       State:       Zip: | | **PHYSICAL LOCATION**  Physical Location and Directions: | |
| **DEQ DISTRICT ENGINEER**       , **District Engineer**  **Phone:** (307)  **Email:** | | | **County and/or CHS Sanitarian**  **, CHS Specialist**  **Phone:** (307)  **Email:** |
| **PERIOD OF OPERATION**  Year-round  Part of the year: From       to  If only open part of the year, does the entire distribution system remain pressurized during the entire off period?  Yes  No  Comments: | | | **SERVICE CONNECTIONS**  Total Service Connections (Active and Inactive):  Service Connections Metered?  Yes  No  Number of metered service connections:  Comments: |
|  | | |  |
| **OWNER TYPE**  1 Federal Government  2 Private: Subdivision, Investor, Trust, Cooperative, Water Association, etc.  Is this PWS operating with a lease on Federal land?  Yes  No  If Yes, enter name of the Federal land here:  3 State Government  4 Local Government Authority: Commission, District, Municipality, City, etc.  5 Mixed Public/Private  6 Native American Indian Tribes & Reservations  7 Other  Comments: | | | **POPULATION DIRECTLY SERVED**  **(do not include populations of consecutive PWSs)**  **(do not double count populations)**  Residential Population (year-round residents):       (people)    Non-Residential Non-Transient Population:       (people)  (6-12 months/year, e.g. students, employees)  Transient Population (less than 6 months/year):       (people per day)  (Average daily number during peak 60 days of operation)  (e.g. customers, visitors)  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)**  AP Airport  PC Picnic Area  BA Bathing/Swimming  RA Rest Area  BR Bar  RC Recreation  CG Campground  RS Residential  CH Church  RT Restaurant  DC Daycare Center  RV RV Park  DR Dude Ranch  SC School  HS Hospital  SD Subdivision  IB Interstate Bottler  SK Ski Area  IF Industrial/Agricultural  SS Service Station  IN Institution  US Water User's Association  LB Local Bottler  VC Visitor Center  LO Lodge  VM Vending Machine  MA Marina  WH Water Hauler  MH Mobile Home Park  XX Other  MO Motel/Hotel  Primary Service Category Description:  Comments: | | | **SOURCES (check all that apply)**  SW = Surface Water SWP = Surface Water Purchased  GW = Groundwater  GWP= Groundwater Purchased  GWUDI = Ground Water Under the Direct Influence of Surface Water  If mixed, does GW receive full SW Treatment?  Yes  No |
| Is the current water source adequate in quantity?  Yes  No Describe:  Have there been any interruptions in service since the last survey?  Yes  No Describe:  Have there been reports of a water borne disease (2 or more people)?  Yes  No Describe:  Have there been any changes to the water system since the last survey?  Yes  No Describe:  Are there any changes that are planned?  Yes  No Describe:  Comments: |
| **SUMMARY (Describe the water system in a paragraph or two)** | | | |
| The following abbreviations will be used throughout this document: NI = no information, NA = not applicable, NR = not requested,  @ = potential significant deficiency. | | | |

# SIGNIFICANT DEFICIENCIES

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| 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 the 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 the 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**

|  |  |  |
| --- | --- | --- |
| **Wholesale System** | **Who is responsible for maintenance of this connection?** | **Connection Type** |
| Name:  PWSID:  Population:  How many master meter connections exist from the wholesale system to the consecutive system? | Wholesaler  Consecutive system  If the consecutive system is responsible check the condition of the principal master meter and the pit for leaks or flooding and describe any concerns:  How often is inspection performed?  How often is maintenance performed?  Is there standing water in the meter pit/vault?  Yes  No  NA  If so, what is the source of the standing water?  Leaks @  Groundwater  Unknown @  If Groundwater, what evidence exists for groundwater as the source? | Permanent  Seasonal,  # Days/Yr:  Emergency Only |
| **Water Source Type**  GW  SW  Mixed  If mixed, does GW receive full SW Treatment?  Yes  No.  Type of residual disinfectant in water supplied:  Chlorine  Chloramines  None  Type of corrosion inhibitor applied:  Phosphate-based  Silicate-based  None | |
| Comments: | | |
| **Wholesale System** | **Who is responsible for maintenance of this connection?** | **Connection Type** |
| Name:  PWSID:  Population:  How many master meter connections exist from the wholesale system to the consecutive system? | Wholesaler  Consecutive system  If the consecutive system is responsible check the condition of the principal master meter and the pit for leaks or flooding and describe any concerns:  how often is inspection performed?  how often is maintenance performed?  Is there standing water in the meter pit/vault?  Yes  No  NA  If so, what is the source of the standing water?  Leaks @  Groundwater  Unknown @  If Groundwater, what evidence exists for groundwater as the source? | Permanent  Seasonal,  # Days/Yr:  Emergency Only |
| **Water Source Type**  GW  SW  Mixed  If mixed, does GW receive full SW Treatment?  Yes  No.  Type of residual disinfectant in water supplied:  Chlorine  Chloramines  None  Type of corrosion inhibitor applied:  Phosphate-based  Silicate-based  None | |
| Comments: | | |
| **Wholesale System** | **Who is responsible for maintenance of this connection?** | **Connection Type** |
| Name:  PWSID:  Population:  How many master meter connections exist from the wholesale system to the consecutive system? | Wholesaler  Consecutive system  If the consecutive system is responsible check the condition of the principal master meter and the pit for leaks or flooding and describe any concerns:  how often is inspection performed?  how often is maintenance performed?  Is there standing water in the meter pit/vault?  Yes  No  NA  If so, what is the source of the standing water?  Leaks @  Groundwater  Unknown @  If Groundwater, what evidence exists for groundwater as the source? | Permanent  Seasonal,  # Days/Yr:  Emergency Only |
| **Water Source Type**  GW  SW  Mixed  If mixed, does GW receive full SW Treatment?  Yes  No.  Type of residual disinfectant in water supplied:  Chlorine  Chloramines  None  Type of corrosion inhibitor applied:  Phosphate-based  Silicate-based  None | |
| Comments: | | |

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| --- |
| **If PWS Purchases Water from a WATER HAULER:**  Name of hauler:  WY Dept. of Agriculture license number:  Name of the water system supplying water to the hauler:  Is there a water tight cap on the (water system’s) fill port? @  Yes  No  How does the operator check chlorine residual at the time of delivery?  Comments: |

# WHOLESALE SYSTEMS

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

**NA**

|  |  |  |
| --- | --- | --- |
| **Consecutive System** | **Who is responsible for maintenance of master meter connection(s)?** | **Connection Type** |
| Name:  PWSID:  # of master meter connections:  Population:  Contact and address if no PWSID: | Wholesaler  Consecutive system  Inspect one representative connection if wholesaler is responsible.  If the wholesaler is responsible:  how often is inspection performed?  how often is maintenance performed?  Is there standing water in any meter pit/vault?  Yes  No  NA  If so, what is the source of the standing water?  Leaks @  Groundwater  Unknown @  Comments: | Permanent  Seasonal, # Days/Yr  Emergency Only  Water is hauled (bulk water fill stations are described in Distribution section) |
| Name:  PWSID:  # of master meter connections:  Population:  Contact and address if no PWSID: | Wholesaler  Consecutive system  Inspect one representative connection if wholesaler is responsible.  If the wholesaler is responsible:  how often is inspection performed?  how often is maintenance performed?  Is there standing water in any meter pit/vault?  Yes  No  NA  If so, what is the source of the standing water?  Leaks @  Groundwater  Unknown @  Comments: | Permanent  Seasonal, # Days/Yr  Emergency Only  Water is hauled (bulk water fill stations are described in Distribution section) |
| Name:  PWSID:  # of master meter connections:  Population:  Contact and address if no PWSID: | Wholesaler  Consecutive system  Inspect one representative connection if wholesaler is responsible.  If the wholesaler is responsible:  how often is inspection performed?  how often is maintenance performed?  Is there standing water in any meter pit/vault?  Yes  No  NA  If so, what is the source of the standing water?  Leaks @  Groundwater  Unknown @  Comments: | Permanent  Seasonal, # Days/Yr  Emergency Only  Water is hauled (bulk water fill stations are described in Distribution section) |
| Comments: | | |
| How many master meter connections exist off the wholesale system? | | |

# SOURCE DATA

## **ACTIVE (PHYSICALLY CONNECTED) WELLS AND WELL PUMPS**

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

**NA**

| **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, driveway/parking lot, combination, etc.) |  |  |  |
| 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 |
| Is the tap located prior to all treatment processes? | Yes  No  NA | Yes  No  NA | Yes  No  NA |
| Where is the source water tap located? |  |  |  |
| If it is a combined tap  What wells does the sample tap represent? | NA | NA | NA |
| Is there an air release/vacuum relief valve (not required)? | Yes  No  NA | Yes  No  NA | Yes  No  NA |
| 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** | NA |  |  |
| 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 Systems with Pumped Vaults  Septic Systems with Leach Fields  (mark location 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)**

**NA**

| **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 |
| Is the tap located prior to all treatment processes? | Yes  No  NA | Yes  No  NA | Yes  No  NA |
| Where is the source water tap located? |  |  |  |
| If it is a combined tap  What wells does the sample tap represent? | NA | NA | NA |
| Is there an air release/vacuum relief valve (not required)? | Yes  No  NA | Yes  No  NA | Yes  No  NA |
| 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 Systems with Pumped Vaults  Septic Systems with Leach Fields  (mark location on aerial if near well)  Comments: | | | |

**SOURCE DATA**

## **SPRINGS AND ASSOCIATED PUMPS**

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

**NA**

|  |  |
| --- | --- |
| Spring name:  Spring owner if different than system owner:  Facility ID (from PWS Inventory, e.g., SPR01):  WY DEQ permit number:  WY SEO permit number:  Are there any approved WY DEQ Chapter 12 variances for this spring? If yes, describe what type of variance was approved: | Description of the intake to the spring collection box (i.e., how the spring water is collected and conveyed into the box):  Actual yield (gpm):  Please copy or photograph any available construction diagrams or “as-builts” and submit with the sanitary survey report.  Comments: |
| **SPRING** **COLLECTION BOX** **Yes** **No** **NA**  Are the spring collection area and spring  box fenced to keep large animals away? @  Does surface water runoff drain away  from the collection area? @  Is there deep rooted vegetation around  the spring collection area and spring box? @  Describe:  Does the spring collection box have the  following features:  Proper shoe box cover? @  Rubber gasket on the access hatch cover? @  Air vents screened with #24 mesh? @  Is the hatch cover locked? @  Overflow screened with #24 mesh screen? @  Does overflow have a free fall of at least  12 inches? @  Is the spring collection box water  tight to prevent inflow of unwanted surface  water? @  Comments: | **SOURCE PUMPS**  Location of the pump station:  How many pumps at the facility?  Type of pump(s):  **Yes No NA**  Are the correct types of lubricants (NSF-60) used?  Are pumps operable and in good condition?  Is there a maintenance program in operation?  Is the pump station subject to flooding? @  Are spare parts available?  Is emergency power available?  Comments: |
| For any other hatches/manholes that are part of the spring collection system or on the transmission line from the spring box to a storage tank or distribution system: (describe the condition of each)  Proper shoe box cover on the access hatch/manhole? @  Yes  No Description and location:  Rubber gasket on the access hatch/manhole cover? @  Yes  No  Is the hatch cover Locked? @  Yes  No | |
| Is there a source water sample tap for GWR compliance?  Yes  No  NA | |
| Is the tap located prior to all treatment processes?  Yes  No  NA | |
| Where is the source water tap located? | |
| If it is a combined tap  NA  What sources does the sample tap represent? | |
| Are there any sources of pollution near the springs 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 spring(s) and provide general location and comments (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 immediate area **(spring house, 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 Systems with Pumped Vaults  Septic Systems with Leach Fields (mark location on aerial if near spring)  Comments: | |

**SOURCE DATA FOR INTAKE LOCATED IN**

## **INFILTRATION GALLERIES AND ASSOCIATED PUMPS**

**NA**

|  |  |
| --- | --- |
| **INFILTRATION GALLERIES**  Infiltration gallery name:  Infiltration gallery owner if different than system owner:  Facility ID (from PWS Inventory, e.g., IG01):  WY DEQ permit number:  WY SEO permit number:  Physical description:  Depth?  Actual yield (gpm):  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 | **SOURCE PUMPS**  Location of the pump station:  How many pumps at the facility?  Type of pump(s):  **Yes No NA**  Are the correct types of lubricants (NSF-60) used?  Are pumps operable and in good condition?  Is there a maintenance program in operation?  Is the pump station subject to flooding?  Are spare parts available?  Is emergency power available?  Comments: |
| Are there any sources of pollution near the infiltration gallery (e.g., agriculture/industrial activities, cleaning supplies, oil/fuel, etc.) which could impact water quality? @  Yes  No  If yes, indicate impacted infiltration gallery(ies) and provide general location and comments (please locate on aerial map and provide photos):  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**

**NA**

|  |  |
| --- | --- |
| **STREAMS**  Stream name:  Facility ID (from PWS Inventory, e.g., IN01):  WY DEQ permit number:  WY SEO permit number:  Is the area around the intake restricted?  Yes  No  Are there multiple intakes located at different levels?  Yes  No Describe:  Are the intake(s) screened?  Yes  No  Frequency of intake inspection:  Date of last inspection:  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 | **INTAKE PUMPS**  Location of the pump station:  How many pumps at the facility?  Type of pump(s):  **Yes No NA**  Are the correct types of lubricants (NSF-60) used?  Are pumps operable and in good condition?  Is there a maintenance program in operation?  Is the pump station subject to flooding?  Are spare parts available?  Is emergency power available?  Comments: |
| Are there any sources of pollution near the stream (e.g., agriculture/industrial activities, cleaning supplies, oil/fuel, etc.) which could impact water quality? @  Yes  No  If yes, indicate impacted stream(s) and provide general location and 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**

**NA**

|  |  |
| --- | --- |
| Reservoir or lake name:  Facility ID (from PWS Inventory, e.g., IN01):  WY DEQ permit number:  WY SEO permit number: | |
| **RESERVOIRS**  Is the area around the intake(s) restricted?  Yes  No  Are there multiple intakes located at different  levels?  Yes  No Describe:  Depth of intake(s):  Distance from shore:  Are the intake(s) screened?  Yes  No  Frequency of intake inspection:  Date of last inspection:  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 | **INTAKE PUMPS**  Location of the pump station:  How many pumps at the facility?  Type of pump(s):  **Yes No NA**  Are the correct types of lubricants (NSF-60) used?  Are pumps operable and in good condition?  Is there a maintenance program in operation?  Is the pump station subject to flooding?  Are spare parts available?  Is emergency power available?  Comments: |
| 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?  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**

## **EMERGENCY BACKUP SOURCE WATER**

|  |
| --- |
| 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.).**  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  Comments: |

# RAW WATER TO TREATMENT PLANT TRANSMISSION LINE

**NA**

|  |
| --- |
| Name or designation:  SW  GW  Point of origin:  Point of termination:  Approximate Length:  Material: |
| Is there asbestos pipe in the water system between the source and the treatment plant?  Yes  No  If yes, what are the location and estimated linear feet of the asbestos pipe in the transmission line? |
| Are there any service connections off the raw water transmission line? @  Yes  No  (Check yes only if the water system provides treated water to the rest of the distribution system)  What does each connection serve?  If used for potable water supply, is there a legal agreement or contract in place?  Yes  No  If used for potable water supply, is the water treated at the connection and how?  Yes  No |
| Name or designation:  SW  GW  Point of origin:  Point of termination:  Approximate Length?  Material: |
| Is there asbestos pipe in the water system between the source and the treatment plant?  Yes  No  If yes, what are the location and estimated linear feet of the asbestos pipe in the transmission line? |
| Are there any service connections off the raw water transmission line? @  Yes  No  (Check yes only if the water system provides treated water to the rest of the distribution system)  What does each connection serve?  If used for potable water supply, is there a legal agreement or contract in place?  Yes  No  If used for potable water supply, is the water treated at the connection and how?  Yes  No |

# DISTRIBUTION BOOSTER PUMP STATIONS

**NA**

|  |
| --- |
| Total number of booster stations in the distribution system:  Are there any new booster stations since the previous survey?  Yes  No  Are there any booster stations the system has had problems with since the previous survey?  Yes  No  Are there any booster stations where chlorine is added?    Yes  No  Note to surveyor: If there are new or problem booster stations, or if there are booster stations where chlorine is added, inspect each of them, complete the necessary sections below, and take photos of each station inspected. For booster stations where chlorine is added, add the booster station as a treatment process under the “Water Treatment Data” section, in addition to filling out the booster pump station section below.  **If there are no new or problem booster stations, inspect one booster station as a representative of the entire system, complete one section below, and take photos of the one station inspected.** |
| Name/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? |
| Name/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? |
| Name/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  Captive Air Bladder Tank  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,  Yes  No  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  NA | Yes  No  NA | Yes  No  NA |
| Does the foundation appear structurally sound? @ | Yes  No  NA | Yes  No  NA | Yes  No  NA |
| 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 yes, note major concerns and/or recommendations: |  |  |  |
| If Carcasses or other debris found in the tank: |  |  |  |
| Was EPA notified immediately? | Yes  No | Yes  No | Yes  No |
| Was the entry point for the carcass or debris eliminated? | Yes  No | Yes  No | Yes  No |
| 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 of any size inside (EPA recommends non-corrodible #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 |
| 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? |  |  |  |
| 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 |
| For below ground tanks where the roof is completely buried, is the hatch raised at least 24” above ground level? @ | Yes  No  NA | Yes  No  NA | Yes  No  NA |
| For partially buried tanks where a roof is visible, is the hatch raised at least 24” above the roof? @ | Yes  No  NA | Yes  No  NA | Yes  No  NA |
| For above ground tanks (ground level or elevated) is the hatch raised at least 4“ above the roof? @ | 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 cover? @ | Yes  No  NA | Yes  No  NA | Yes  No  NA |
| Is the hatch cover tight and sealed with a rubber gasket? @ | Yes  No  NA | Yes  No  NA | Yes  No  NA |
| Is the hatch cover locked? @ | Yes  No  NA | Yes  No  NA | Yes  No  NA |
| Comments about access hatch: |  |  |  |
| 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  NA | Yes  No  NA | Yes  No  NA |
| Does the foundation appear structurally sound? @ | Yes  No  NA | Yes  No  NA | Yes  No  NA |
| 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 yes note major concerns and/or recommendations: |  |  |  |
| If Carcasses or other debris found in the tank: |  |  |  |
| Was EPA notified immediately? | Yes  No | Yes  No | Yes  No |
| Was the entry point for the carcass or debris eliminated? | Yes  No | Yes  No | Yes  No |
| 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 of any size 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 |
| 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? |  |  |  |
| 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 |
| For below ground tanks where the roof is completely buried, is the hatch raised at least 24” above ground level? @ | Yes  No  NA | Yes  No  NA | Yes  No  NA |
| For partially buried tanks where a roof is visible, is the hatch raised at least 24” above the roof? @ | Yes  No  NA | Yes  No  NA | Yes  No  NA |
| For above ground tanks (ground level or elevated) is the hatch raised at least 4“ above the roof? @ | 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 cover? @ | Yes  No  NA | Yes  No  NA | Yes  No  NA |
| Is the hatch cover tight and sealed with a rubber gasket? @ | Yes  No  NA | Yes  No  NA | Yes  No  NA |
| Is the hatch cover locked? @ | Yes  No  NA | Yes  No  NA | Yes  No  NA |
| Comments about access hatch: |  |  |  |
| Comments: |  |  |  |

# WATER TREATMENT DATA

## **GROUNDWATER and CONSECUTIVE SYSTEMS THAT HAVE AVAILABLE TREATMENT**

**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:  Any changes to treatment since the last sanitary survey?  Yes  No  Describe: | | | | |
|  | **Step 1** | **Step 2** | **Step 3** | **Step 4** |
| Process | Chemical  Manufacturer  Product Name  (photograph the product label)  Yes No  NSF 60 Certified?  UV  Filtration  Ion exchange  Softener  Other:  Dosage: | Chemical  Manufacturer  Product Name  (photograph the product label)  Yes No  NSF 60 Certified?  UV  Filtration  Ion exchange  Softener  Other:  Dosage: | Chemical  Manufacturer  Product Name  (photograph the product label)  Yes No  NSF 60 Certified?  UV  Filtration  Ion exchange  Softener  Other:  Dosage: | Chemical  Manufacturer  Product Name  (photograph the product label)  Yes No  NSF 60 Certified?  UV  Filtration  Ion exchange  Softener  Other:  Dosage: |
| NSF 60 certification and max. allowable dose info. can be found at: <http://info.nsf.org/Certified/PwsChemicals/> | | | | |
| Objective: | Disinfection  Particulate removal  Hardness removal  Taste & odor removal  Metals removal  Other: | Disinfection  Particulate removal  Hardness removal  Taste & odor removal  Metals removal  Other: | Disinfection  Particulate removal  Hardness removal  Taste & odor removal  Metals removal  Other: | Disinfection  Particulate removal  Hardness removal  Taste & odor removal  Metals removal  Other: |
| Is this process required by EPA? | Yes  No | Yes  No | Yes  No | 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  Explain: | Yes  No  Explain: |
| Frequency of use: | Permanent  Seasonal  Emergency  Other: | Permanent  Seasonal  Emergency  Other: | Permanent  Seasonal  Emergency  Other: | Permanent  Seasonal  Emergency  Other: |
| Redundant Equipment? | Yes  No  Explain: | Yes  No  Explain: | Yes  No  Explain: | Yes  No  Explain: |
| Backup power? | Yes  No  Explain: | Yes  No  Explain: | Yes  No  Explain: | Yes  No  Explain: |

***Groundwater and Consecutive Systems***

### ***UV Disinfection***

|  |
| --- |
| **Yes No**  Is there aflow 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 anintensity sensor and alarm (visible/audible) to indicate low intensity?  Is there aUV lamp status alarm (visible/audible) to indicate lamps off?  Is there aUV lamp age counter/alarm?  Is there anautomatic 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? |

***Point of use Treatment***

|  |
| --- |
| For PWSs with required Point of Use (POU) treatment, ask the operator –  **Yes** **No** **NA**  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, explain any difficulties:  Comments: |

**WATER TREATMENT DATA**

## **SURFACE WATER / GWUDISW SYSTEMS**

**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 Rule 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: |
| Provide a brief description of the plant’s treatment processes: | |
| 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:  No wastes generated | |

### **Pre-Filtration Processes**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Pre-Sed Basin:  Yes  No  Describe Type and indicate volume:  Chemicals added:  YesNo (If yes, input chemical information in table below)  Rapid Mix: Yes No  Describe Type:  Chemicals added: YesNo (If yes, input chemical information in table below)  Flocculation:  Yes  No  Describe Type:  Chemicals added: Yes No (If yes, input chemical information in table below)  Sedimentation: Yes No  Describe Type:  Chemicals added:  YesNo (If yes, input chemical information in table below)  Other:  Yes No  Describe:  Chemicals added:  Yes  No (If yes, input chemical information in table below)  Chemical Information (ask system to provide information from chemical supplier / manufacturer):   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | Manufacturer | Product Name | Location Chemical Added | Max Dose Used  (past 12 months): | NSF 60 Certified? | NSF 60 Max Allowable Dose | |  |  |  |  | YesNo |  | |  |  |  |  | Yes No |  | |  |  |  |  | Yes No |  | |  |  |  |  | Yes No |  | |  |  |  |  | YesNo |  |   NSF 60 certification and max. allowable dose info. can be found at: <http://info.nsf.org/Certified/PwsChemicals/>  Does the system use a chemical containing epichlorohydrin or polyacrylamide that is dosed in excess of the NSF 60 Max Allowable Dose? ¥  Yes  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 policy SWTR #5? @  Are turbidimeters calibrated at least once every quarter? @  Does the system use a primary standard to perform the calibration? @  Are CFE turbidity records available for the last 5 years? ¥  Can CFE turbidities be recorded up to 5 NTU? @ How high can they be recorded:  Can turbidities associated with off-periods (backwash, FTW) be identified so they are not counted for compliance? (if applicable) @  Finished water CFE turbidity (NTU): PWS measurement:       Surveyor measurement:       Time of analysis: |

#### *Conventional and Direct Filtration*

|  |  |
| --- | --- |
| *Filter Information*  # of filters:  Type of filters:  open to atmosphere enclosed (pressure)  Manufacturer name & model (if applicable):        Depth of each media (in):  Sand:       Anthracite:       Garnet:  Total at least 24”? @ Yes  No  Has operator observed loss of media?  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 | *Backwash Information*  What determines when backwash occurs?  Backwash rate (gpm/ft2):  What is used for a backwash?  Air scour  finished water  raw water @  **Yes No**  System starts up with clean filters (if not running 24/7)  System performs filter to waste (FTW) before putting filters back on line. |

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

|  |
| --- |
| IFE Questions  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? ¥    CFE Questions  How are CFE 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 removal 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)***

|  |
| --- |
| Describe where 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? YesNo  Is thereadequate 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):  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):  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 particles or have a 1 or 2 micron absolute pore size rating? (leave blank if unknown) @  Does the flow rate through the final filter exceed the manufacturer’s maximum recommended flow rate? @ |
| Log removal credited for this type of filtration barrier for: *Giardia*:       Viruses:       Cryptosporidium: |

#### *Diatomaceous Earth Filters*

|  |
| --- |
| Number of filters:        Pressure System  Vacuum 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*

|  |
| --- |
| Describe all inactivation processes, **both pre-filtration and post-filtration:** |

#### *UV Disinfection*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 Pathogen | Log Inactivation | | | | | | | | | 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 aflow 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 anintensity sensor and alarm (visible/audible) to indicate low intensity? @  Is there aUV lamp status alarm (visible/audible) to indicate lamps off? @  Is there aUV lamp age counter/alarm? @  Is there anautomatic shut-off fail-safe solenoid valve so that water does not flow through the unit without adequate treatment? @  Does this UV unit have an NSF Standard 55A Certification or has it been validated according to the requirements of the 2006 UV 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 1st 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:       Time of analysis:  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 entry? ¥  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 actual data to document inactivation in the section below. Otherwise, do a conservative calculation for each inactivation segment.  Identify location of 1st user: | |
| Summer Calculations  Lowest\* disinfectant residual and where measured (mg/L):  Water temperature (lowest\*):      °C  Water pH (highest\*):  Maximum\* flow through segment:       gpm  Describe each segment and list appropriate baffling factor: | List the volume of each segment using minimum\* operating heights of tanks:  Total logs *Giardia* inactivation from all chemical disinfection segments:  Total logs virus inactivation from all chemical disinfection segments: |
| Winter Calculations  Lowest\* disinfectant residual and where measured (mg/L):  Water temperature (lowest\*):      °C  Water pH (highest\*):  Maximum\* flow through segment:       gpm  Describe each segment and list appropriate baffling factor: | List the volume of each segment using minimum\* operating height of tanks:  Total logs *Giardia* inactivation from all chemical disinfection segments:  Total logs virus inactivation from all chemical disinfection segments: |
| \* Use data from system’s ongoing CT calculations if available. Values should correlate to the system’s lowest calculated inactivation levels during the specified season in the previous year. | |

#### *Chemical Disinfection – Disinfection Profiling (if system is exempt, skip section)*

|  |
| --- |
| **Yes No**  Does the system have a disinfection profile on site that contains a year of weekly log inactivation calculations (<10,000 pop.) or a year of daily log inactivation calculations (>10,000 pop)? @  Did the PWS make a significant change (new disinfectant; 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/value): *Giardia:*       Viruses: |

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

#### *Viruses / Giardia*

|  |  |
| --- | --- |
| ***Viruses***        Logs Removal (filtration)        Logs chemical inactivation (lowest value from Summer / Winter calculations)        Logs UV inactivation        Logs other removal or inactivation        Total logs inactivation / removal  > 4 logs? @ YesNo | ***Giardia***        Logs Removal (filtration)        Logs chemical inactivation (lowest value from Summer / Winter calculations)        Logs UV inactivation        Logs other removal or inactivation        Total logs inactivation / removal  > 3 logs? @ YesNo |

#### *Cryptosporidium*

|  |
| --- |
| Committed to install maximum treatment? Yes No  If no, what is the system’s bin #? Bin #1  Bin #2  Bin #3 Bin #4  System Classification:  Filtered  Unfiltered  \*If system completed sampling and was classified as a Bin #1 system, the section below does not need to be completed. For all other systems, please complete the section below. |
| Total logs Cryptosporidium inactivation / removal required based on max treatment, bin # or classification:  Date treatment required by:       Toolbox Components Utilized:        Logs Removal (filtration)        Logs chemical inactivation        Logs UV inactivation        Logs other Toolbox Components        Total logs inactivation / removal  > required logs? ¥ YesNo |

# WATER TREATMENT DATA (FOR ALL SYSTEMS)

## **CORROSION CONTROL**

|  |  |  |  |
| --- | --- | --- | --- |
| Does this PWS add chemicals for corrosion control?  Yes  No  Comments: | | | |
| 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 treatment chemical concentrations, pH or any other water quality parameters at the entry point to the distribution system or at customer taps to evaluate the process?  Yes  No  Comments: | | | |

# DISTRIBUTION DATA

|  |  |  |
| --- | --- | --- |
| Please provide a brief description of the distribution system, including source to use piping: | | |
| Is there asbestos pipe in the distribution system?  Yes  No  If yes, what are the location and estimated linear feet of the asbestos pipe in the distribution system? | | |
| Have lines broken due to freezing?  Yes  No  Have lines broken due to traffic load?  Yes  No | | |
| Are lines properly disinfected after repairs are made?  Yes  No | | |
| Is there at least 35 psi pressure in the distribution system at peak normal flow?  Yes  No | | |
| Is there at least 20 psi at all points in the system at all times? @  Yes  No | | |
| For systems that provide water storage:  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  (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?  Yes  No  Note to surveyor: If yes, inspect one representative ARV, note its condition and provide photos  Are they regularly inspected and maintained?  Yes  No  Do any have leaks and/or standing water that covers the discharge point? @  Yes  No | | |
| 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?)  Yes  No | | |
| 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:       Time of analysis:  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** |
| **Does each severe hazard connection** 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. |
| **Does each high hazard connection** in the treatment plant or distribution system 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 **trailers or mobile homes connected directly to the PWS** via a yard hydrant have a residential dual check valve at each connection? |
| Are any **frost-free hydrants** 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)? |
| **Chlorine Gas Safety** **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?  Are all personnel trained in their proper use? |
| **Chemical 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 standards 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 ERP --that 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? |
| % wind:       % solar:       % hydro: |

# MONITORING AND RECORDS

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| --- |
| **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?  They will need to take 3 repeat samples under the RTCR utilizing the regular lab form:  For an explanation go to the EPA Region 8 Drinking Water Online website (<http://www.epa.gov/region8-waterops>)  - “click” on **Revised Total Coliform Rule (RTCR)** (under Regulations and Compliance)   * “click” on **Tech Tip: TC+ Follow Up** (in green box) * Follow the 5 steps described in the Tech Tip for follow up sampling after a TC+ sample  |  | | --- | | 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:**  **NA** |
| **Yes** **No** **NA** |
| Within 24 hours of being notified of a *routine coliform* positive sample result, they must collect one triggered source water sample for *every* 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 *each* ground water source)? |
| They will need to submit: |
| - Source water sample results utilizing the triggered Ground Water Source Sampling Form located on the Drinking Water Online site (<http://www.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):** **NA** |
| **Yes** **No** **NA** |
| Is there a Disinfection Byproducts Rule Monitoring Plan on-site available for the surveyor’s review? |
| - Does the plan layout represent the current distribution system?  In the last 5 years, has the distribution system been expanded to new service areas?  - If Yes, please describe the expansion. |
| Does the system have a Lead & Copper Tap Sample Site Plan on site and available for the surveyor’s review? |
| - Is it up to date?  - Ask the operator - Is the system following their LCR Tap Sample Site Plan?  If No, explain any difficulties |
| **For All Systems:** |
| **Yes** **No** **NA** |
| Does the operator know the location of each sample tap that represents the entry point(s) to the distribution system? (sample location for Nitrates, RADs, IOCs, SOCs and VOCs)  Include, in your photo document, a photo of each sample tap used by the operator to collect samples at the entry point(s) to the distribution system. Show in the photo or in the photo comments where the sample tap is located relative to other water system facilities that are identified on the system schematic. |
| Does the operator know how to properly label samples taken from the entry point(s)?  Document the sample point code and sample point description for each entry point. The sample point code(s) and sample point description(s) are indicated on the system schematic with a star. This information is how compliance samples should be labeled and the lab’s chain of custody completed. (e.g., Sample Point Code and Sample Point Description, such as SP01/Treatment Plant Sampling Point). |
| 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 (<http://www.epa.gov/region8-waterops>) and Drinking Water Watch (<https://sdwisr8.epa.gov/Region8DWW/JSP/loginForm.jsp>) websites created for their benefit? |