

**STATE OF ALASKA  
PUBLIC WATER SYSTEM INVENTORY SURVEY FORM**

**WATER SYSTEM INVENTORY INFORMATION**

**SURVEY DATE †**

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**PWSID †**

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Date of last survey		System Class † (s.f.g.)		Region (s.f.g.)		District (s.f.g.)			
No. of Service Connections †		Residential Pop. †		Non-Residential Pop.		Status †			
Name of Water Supply †									
Addressee				Owner Name					
Mailing Address †				Owner Address					
City, State and Zip Code †			Telephone		City, State and Zip Code			Telephone	
Plant Location (if different than mailing address)									
Operator(s) Name (Please list all operators, including substitute and temporary)				Operator Qualification or Operator Certification (Type/Level)		Date Issued	Date Expires		
		Telephone	FAX						
Owner Type † (s.f.g.)	Service Category † (s.f.g.)	Date system initially began operation in current configuration †		Recent Modifications  Date: DEC Approved?    Y <input type="checkbox"/> N <input type="checkbox"/>		Seasonal Operation Dates †			
Is the system in monitoring compliance for the following parameters:				Is the system monitoring daily and reporting monthly for:					
Coliform		YES <input type="checkbox"/>	NO <input type="checkbox"/>	NA <input type="checkbox"/>	Turbidity		YES <input type="checkbox"/>	NO <input type="checkbox"/>	NA <input type="checkbox"/>
Inorganic (including nitrates)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Disinfectant Residual		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Radionuclide		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(For systems avoiding filtration) CT Value (s.f.g.)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
VOC		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fluoride		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pesticide		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are disinfectant sampling points varied throughout system?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TTHM		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If no, explain:				
If no, explain:									
Samples taken at time of survey by surveyor			Survey performed by			Agency		Date	
Received by		Date	COMMENTS	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Were structural deficiencies noted during this survey?			

**WATER TREATMENT DATA**

One water treatment form must be filled out for **each** plant in the PWS.

SOURCE ID

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SURVEY DATE †

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PWSID †

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Sources treated by station	Physical Address		
Lat-Long	Date Online	Daily Output (GPD)	Schematic of plant readily available and up-to-date N <input type="checkbox"/> Y <input type="checkbox"/>

**DISINFECTION**

Check all disinfection types used:

Gas Cl2    Sodium hypochlorite    Calcium hypochlorite    Iodine

UV light    Ozone    Chlorine dioxide    Bromine    Other:

1. How many chlorine stations are maintained?  
List

- |     |    |     |     |  |
|-----|----|-----|-----|--|
| yes | no | n/a | unk |  |
|-----|----|-----|-----|--|
2. Is in-line disinfection practiced? (s.f.g.)
- \*3. Is the disinfection equipment operated and maintained properly?
4. Are critical spare parts on hand? (s.f.g.)
5. If hypochlorite is used, are dilutions being made in the proper manner?
6. Are disinfectant residual measurements being made and recorded at the entry point and within the distribution system? (s.f.g.)
- \*7. Is there a detectable disinfectant residual being maintained throughout the distribution system?
- \*8. Is there a disinfectant residual of at least 0.2 mg/l at the entry point to the distribution system?
9. Are proper residual test kits available and well stocked?
10. For systems avoiding filtration, are adequate records kept to determine CT values?
- \*11. For systems avoiding filtration, is there backup power with auto start-up and alarm; or auto shut-off if disinfection residual goes below .2 mg/l?
- \*12. Is there sufficient contact time between the disinfection point and first point of use?
13. Is there an auto switch-over for disinfection units to prevent a break in disinfection?
14. Are backup disinfection units on-line and operational?
15. Is there an adequate quantity of disinfectant on hand?
16. Is disinfectant properly stored?
17. Is disinfectant feed proportional to water flow?
18. Are disinfection units hooked up to flow switches that prevent the addition of disinfectant when no water is flowing?
19. Have there been any interruptions in disinfection in the past year? If so, describe on continuation sheet.
20. Is the operator trained to use and conduct monitoring of disinfectant properly?

TRAINING: \_\_\_\_\_ DATE: \_\_\_\_\_

**GAS CHLORINATION SAFETY**

21. Are there chlorine warning signs clearly posted?
22. In the event of a power outage, is there emergency lighting available?
23. Are lighting and fan switches located outside chlorine room?
24. Is a manifold provided to allow feeding gas from more than one cylinder?
25. Is the chlorine room accessible from outside door only?
26. Is the door hinged outwards with panic bars?
27. Is there a window for viewing the chlorine room?
- \*28. Is there an exhaust fan located near floor and an intake vent located near ceiling?
- \*29. Is there a chlorine gas leak alarm present?
- \*30. Is there a SCBA?
31. If so, is SCBA stored outside the chlorine room?
32. Is the operator trained in the use of a SCBA?
- \*33. Is an ammonia leak bottle available for detecting chlorine leaks?

- |     |    |     |     |  |
|-----|----|-----|-----|--|
| yes | no | n/a | unk |  |
|-----|----|-----|-----|--|
34. Are tanks chained to the wall or otherwise secured?

35. Is there a chlorine tank wrench next to or on the cylinder?
36. Is a chlorine cylinder repair kit available, including gaskets?
37. Are scales provided for weighing of cylinders?
38. Can the temperature in the chlorine storage area be reliably maintained above 50 deg F?
39. Is the cylinder storage area kept cooler than the chlorinator equipment area at all times?
40. Does the operator take the proper precautionary measures at all times (rubber gloves, eye protection, mask, protective clothing)?
41. In the event of an emergency, are there gas scrubbers installed?
42. Has the operator had chlorine gas safety training?

INSTRUCTOR: \_\_\_\_\_ DATE: \_\_\_\_\_

COMMENTS:

**WATER TREATMENT CONTINUED**

**CHEMICAL ADDITION**

This section must be filled out if any chemicals other than disinfectants are added to the water system.

Chemical(s)	Dosage	Purpose

yes no n/a unk

43. Are chemicals stored properly?
- \*44. Are chemical feeders and pumps in good condition, and properly maintained?
- \*45. Are chemical feed systems designed so that they cannot overfeed?
- \*46. Is there an auto shut-off safety switch to prevent chemical feed when water pumps are off?
- \*47. Are instrumentation and controls adequate for the process being utilized and in proper working order?
48. Are accurate records being maintained (check records)?
49. Are adequate safety devices available and precautions observed?
50. Is the system monitoring for chemicals being used?
51. Is the operator trained to use and conduct monitoring of chemicals used?

TRAINING:	DATE:

**PRETREATMENT (if applicable)**

52. Mixing (Check one)  Static  Inline  Mixing Chamber
53. Is coagulation practiced whenever water is treated?
54. Is flocculation used?
55. Is pH adjustment used?
56. Is sedimentation used?

**CORROSION CONTROL (if applicable)**

57. Is there corrosion monitoring?
58. If water is corrosive, does utility have an approved corrosion control program?
59. Has a Langelier Index or similar corrosion potential indicator been determined?
60. Does system comply with lead solder ban?
61. Are corrosion control chemicals being used?

**OTHER TREATMENT (Check all that apply)**

- Fe/Mn  Softening  Ion Exchange  Fluoridation  R.O.
- Other:

**COMMENTS:**

SOURCE ID	SURVEY DATE †	PWSID †

**FILTRATION/ABSORPTION (if applicable)**

Type of treatment(s) used (Check all that apply)

Conventional  Direct  Pressure Sand  Slow Sand

Diatomaceous Earth  Cartridge/Bag  Absorption (s.f.g.)

Other (list): \_\_\_\_\_ (See field guide for treatment descriptions)

Number of Filters	Number of Stages (Cartridge)	Size of Filters

(Cartridge) Brand	(Cartridge) Model

Replacement Interval

Purpose of Filter (Check all that apply)

Odor/Taste  Giardia  TTHM's  Other (list)

Turbidity  Fe/Mn  VOC's  Color

Type of Filter Media (Check one)

Sand  Mixed Media  GAC  Green Sand

Other (list)

Filtration Rate (GPS)	Backwash Interval

62. What determines when backwashing will take place?

63. Is backwash automatic or manual?

64. How often is the interior of the pressure filter inspected?

yes no n/a unk

- \*65. Is filtration equipment maintained and in operable condition?
66. Can backwash wastewater be observed during backwash?
67. Is backwash flow measured?
68. Is backwash rate sufficient?
69. Can backwash rate of flow be adjusted?
70. Are there backup filters for use during repair and cleaning?
71. Does filtering media meet standards approved in plan review?
- \*72. Is there equal flow through all filters?
- \*73. Is there surface wash?
- \*74. Can surface wash arm rotation be verified?
75. Is treated water used for backwashing?
76. Are jar tests conducted at facility?
- \*77. Is there filtered water to waste piping?
78. Is there air assisted backwash capability?
79. Is flow to the filter(s) controlled with a device such as a rate of flow controller?
80. Is pressure drop monitored across the filter?
81. Is cartridge/bag filter replacement safe and sanitary?
82. Are chemicals used in filtration?
83. Are epichlorohydrin and/or acrylamide used?
84. If so, does the system annual certify that they are using them in the correct dosage?

COMMENTS:





**DISTRIBUTION DATA**

**SURVEY DATE †**

**PWSID †**

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What are water lines made of:	
Main Lines	Distribution Lines
How Many services are metered? out of	Number of Fire Hydrants

**MONITORING**

Results of operator demonstration(s) (s.f.g.)

Turbidity:	Disinfection Residual:
pH:	Temperature:
Fluoride:	

List facilities/equipment for testing

yes no n/a unk

- 1. Are pressure and flows adequate throughout the system at all times of the year?
- 2. Are there any distribution materials used that should not be in contact with drinking water? If yes, explain on continuation sheet.
- 3. Is there a leak detection program?
- 4. Was Asbestos/cement pipe used in the system?
- 5. If so, has asbestos analysis been done?
- 6. Is either raw or finished water metered?
- 7. Is there a routine main and dead end water flushing program?
- \*8. Are pressure tanks, check valves, blow off valves, water meters, etc. maintained and operating?
- 9. Is system adequately protected from freezing? If no, explain on continuation sheet.
- 10. Are heat exchangers used?
- 11. If yes, is potable glycol used?

12. What type of heat exchanger(s)

13. For circulating systems, what is the temperature of the water leaving from and returning to plant?

yes no n/a unk

- \*25. Are testing facilities and equipment orderly and maintained?
- 26. Do reagents have an unexpired shelf life?
- 27. Are records of test results being maintained and kept at plant?

**TOTAL COLIFORM RULE**

- 28. Does the system have at least 4 extra bottles or bags for repeat samples in the event of an unsatisfactory coliform sample?
- \*29. Is a total coliform rule (TCR) sample siting plan available for review?
- \*30. Does the TCR sample siting plan meet the minimum requirements? (s.f.g.)

**FOR SYSTEMS AVOIDING FILTRATION WATERSHED OR WELLHEAD PROTECTION PROGRAM**

- \*31. Is there a watershed/wellhead protection program? (s.f.g.)
- \*32. Does the watershed/wellhead protection program meet the minimum requirements? (s.f.g.)
- \*33. Is the watershed/wellhead protection program being carried out?

**MANAGEMENT**

- 34. Are routine operation and maintenance records being kept?
- 35. Are routine maintenance schedules established and adhered to for all components of the water system?
- 36. Are plans of the water system available and current?
- 37. Are there any local ordinances that hinder safe operation of the system? If yes describe on continuation sheet.
- 38. Is there a fee schedule? If yes, describe on continuation sheet.
- 39. Are all facilities and activities free from safety defects?
- 40. Does the system have a workable emergency plan for the following situations? (Check if yes)

- Fire  Chemical contam.  Bacterial contam.  Freezing
- Chlorine gas leak  Power outage  Flood
- Lack of water

- 41. Are supplies and maintenance parts inventories adequate?
- 42. Is the financing and budget satisfactory?
- 43. Are there sufficient funds for training personnel?
- 44. Are there sufficient personnel?
- 45. Are sufficient operation and maintenance records being kept?
- 46. Are complaints logged in and responded to?
- 47. Have any major complaints been received since the last sanitary survey? If yes, list on continuation sheet.

**PUMPS, PUMPHOUSES AND CONTROLS**

Type of Pump(s)	Purpose

- \*14. Are pumps in good operating condition?
- 15. Are pumphouses clean and orderly?
- \*16. Is electrical wiring maintained properly?
- 17. Are there stand-by generators?
- 18. Are stand-by generators tested?
- 19. Are there spare pump parts? (s.f.g.)

**CROSS CONNECTIONS**

- 20. Is there a cross connection control program?
- 21. If so, is it adequate?
- 22. Is there scheduled testing of backflow prevention devices?
- \*23. Are backflow prevention devices installed at all appropriate locations? (s.f.g.)
- 24. Is the operator trained in cross connection control?

Training:	Date:
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COMMENTS:

48. What are the most frequent complaints?

**STORAGE**

TOTAL STORAGE CAPACITY (gal)

SURVEY DATE †

PWSID †

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STORAGE STRUCTURE NAME/DESIGNATION			
PHYSICAL LOCATION OF STORAGE STRUCTURE		STORAGE TYPE (s.f.g.)	
DATE IN SERVICE	TYPE OF MATERIAL (s.f.g.)	TYPE OF CORROSION CONTROL (s.f.g.)	VOLUME (Gal)
TOTAL DAYS OF SUPPLY (This structure)		DATE LAST: CLEANED	INSPECTED

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TOTAL DAYS OF SUPPLY (This structure)		DATE LAST: CLEANED	INSPECTED

yes no n/a unk

- 1. Is the storage structure located above groundwater level?
- 2. Does surface run-off drain away from the storage structure?
- 3. Is the storage structure protected against flooding?
- \*4. Are overflow lines, air vents, drainage lines or clean out pipes turned downward or covered, screened and terminated a minimum of 2 times the diameter of the water outlet above the ground or storage structure surface?
- \*5. Is treated water storage covered or enclosed?
- \*6. Is the storage structure clean and free from contamination?
- \*7. Is the storage structure structurally sound?
- \*8. Can the storage structure be isolated from the system?
- 9. Is leakage evident at time of inspection?
- 10. Is the storage structure interior coating or liner peeling or cracked?
- \*11. Is storage structure safely accessible to inspector?
- 12. Is storage structure used to store treated water?
- 13. Are NSF or equivalent materials used in storage structure?

14. Is storage structure lined? If so, liner type:

yes no n/a unk

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COMMENTS:

**INSPECTION CONTINUATION SHEET**

**SURVEY DATE†**

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**PWSID†**

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COMMENTS: