Standard Operating Procedure (SOP)
Water System Name _____

General System Information			
PWS Name		**PWSID# NY** _____	
SOPs Prepared by		***Date prepared***	
SOPs Updated by		***Date Updated***	
Street address of system		***Number of service connections***	
Town		***Number of people served***	
Zip code		***Source type (GW, SW, GWUDI)***	
County		***Total source capacity (gpm)***	
Comments			

System Notes

Tips on Using this SOP Template
This SOP template is available in MS Word format (doc) or in Portable Document Format (pdf)   - The MS Word template entry spaces will expand as needed to accept your information.   - The MS Word template can be easily modified with added rows to meet your needs.   - The PDF format is not easily modified, but can be printed with the Adobe Reader software, available free at http://get.adobe.com/reader/
Modifying this SOP template in MS Word (instructions work for MS Word 2003 and older)   - To delete a row, place the cursor in the row you want to delete. From the pull-down menu at the top of the page select: Table – Delete – Rows.   - To add a row, place the cursor in the row below where you want a new row, then select: Table – Insert Row or place the cursor in the last field of the table (bottom-right) and hit the tab key.   - To delete an unneeded table, highlight the entire table and hit - Delete   - To add a whole new table, locate your cursor where you want it added. From the pull-down menu at the top of the page select: Table – Insert Table – enter the number of columns and rows you need - Choose OK. Alternately, you can cut and paste an existing table at this location and then modify it as needed.
- Post your completed template or individual pages where convenient to use and accessible to all operators.   - Update the template when needed for new equipment, changes in system operation, contact info, etc.   - Consider laminating pages that are posted in humid areas or around chemicals.
These SOPs will help provide consistent, effective practices by system operators and allow unfamiliar operators to provide help if needed. The SOPs may not cover all regulatory requirements of the State Sanitary Code (10NYCRR SubPart 5-1) and should not be relied on for this purpose.

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Standard Operating Procedure (SOP)
Water System Name _____

Contact Information				
	Name	*Primary Phone Number*	*Emergency Phone Number*	*Email*
Owner				
Owners Rep or Manager				
Operator in Charge				
Assistant Operator				
Health Dept Contact				
Health Dept After Hours				
Water Testing Lab				
Water Testing Lab				
Chlorine Supplier				
Chemical Supplier				
Equipment Vendor				
Equipment Vendor				
Pump Supplier				
Plumber				
Excavator				
Electrician				
Power Company				
Water Hauler				
Engineer				
NYRWA Circuit Rider				
NYSDEC 24/7 Spill Reporting Hotline			(800) 457-7362	
SEMO 24/7 Emergency			(518) 292-2200	

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Sources – Groundwater and GWUDI

Source Name and Location	Well type, spring, or other source	Well depth (ft)	Safe yield (gpm)	Pump rate (gpm)	Pump set depth (ft)	Pump Make, Model & HP	Source use (primary, auxiliary, emerg.)

System Pumps

Pump Name, Location	Pump Make, Model & HP	Pump Rate (gpm)	Comments (pump control method, etc.)

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Treatment - Liquid Chlorine (hypochlorite)			
Undiluted strength (5%, 12.5%, etc.)		**Target chlorine residual at entry point to system (ppm)**	
Day tank capacity (gal)		**Chlorine to water mix ratio**	
Day tank filling instructions		**Pump make and model**	
		Maximum pump rate (gpm or gph)	
		Typical pump speed and stroke settings	
MSDS	MSDS sheet posted where chemical is stored and used and copy is attached here		
Chemical supplier name and contact information			
Comments			

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Standard Operating Procedure (SOP)
Water System Name _____

Storage

Storage Tank Name, Location	Pressure or Atmospheric	Storage (gal)	Comments (operating levels, cleaning methods, frequency, etc.)

Operating Pressures

	Low	High	Comments
System pressure settings (psi)			

Distribution System

Type of Pipe	
Distribution main size(s)	
Service connection shut-off locations	
Number of main valves	

Valve Name or #	Location	Shuts off what area

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Standard Operating Procedure (SOP)
Water System Name _____

Sample Sites

Description	Location/Address/Resident Name	Chlorine	Total Coliform	Disinfection Byproducts	Lead & Copper	Other
Raw Water		▨		▨		
" "		▨		▨		
Entry Point						
" "						
Distribution						

Back-Up Power

Onsite Generator - make, model, elec capacity, fuel type, fuel storage	
Offsite Generator - capacity, source, contact info, transportation	
Power Transfer - transfer switch type, location, step by step procedures	
Exercise schedule and procedures	

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Treatment - Other Chemical (e.g. corrosion control)			
Chemical name		**Commercial product strength (pH, %, etc.)**	
Reason for use		**Target residual and sample location**	
Day tank capacity (gal)		**Day tank mix ratio**	
Day tank filling instructions		**Pump make and model**	
		Maximum pump rate (gpm or gph)	
		Typical pump speed and stroke settings	
MSDS	MSDS sheet posted where chemical is stored and used and copy is attached here		
Chemical supplier name and contact information			
Comments			

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Standard Operating Procedure (SOP)
Water System Name _____

Treatment - Ultraviolet Disinfection			
Make and Model		**Design flow rate (gpm)**	
Target intensity meter reading (%)		**Quartz sleeve cleaning frequency**	
Spare parts available (e.g. quartz sleeve, bulb, and o-rings)			
Describe cleaning & bulb replacement procedures			
Service name and contact information			
Comments			

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Treatment - Other (e.g. cartridge filtration, softening, etc.)			
Treatment description		*Design flow rate (gpm)*	
Describe maintenance, parts replacement and backwash procedures			
Service name and contact information			
Comments			

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Standard Operating Procedure (SOP)
Tasks Calendar

PWS Name:	
Schedule for Daily Tasks:	
Task	**Notes**
Collect entry point free chlorine residual sample and record on monthly operation report	The free chlorine residual should be at least ____ mg/l at the entry point to the system.
Check chlorine day tank, record amount used, and refill as needed	When the level in the chlorine day tank is down to ____ gals add ____ qts/gals of _____ % chlorine and ____ gals of water.
Inspect chlorine feed pump(s)	Confirm chemical is pumping correctly and there are no air bubbles trapped in the feed line, etc.
Record water plant meter readings & calculate total daily production	Average day demand in summer is _____ gals per day (gpd) and in winter is _____ gpd. If demands are higher than this for more than three days, there may be a leak.
Record pump run times and start cycles	Pumps normally run _____ hours per day in the summer and _____ hours per day in the winter.
Conduct a general security check	Inspect windows, doors, hatches, screens, well caps, fences, gates, lighting, locks, and alarms. Check if locked or set, look for tampering or vandalism.
Collect other chemical samples as needed	The measured amount of _____ should be at least ____ mg/l at this sample location _____.
	The measured amount of _____ should be at least ____ mg/l at this sample location _____.
	The measured pH should be within range _____ at this sample location _____
Check other chemical day tank, record amount used, and refill as needed	When the level in the _____ day tank is down to ____ gals add ____ qts/gals chemical and ____ gals of water.
Inspect other chemical feed pump(s)	Confirm chemical is pumping correctly and there are no air bubbles trapped in the feed line, etc.
Check and record water levels in storage tanks	The storage tank normally operates between _____ - _____ feet of water.
Check other treatment processes such as cartridge filters or softeners	Cartridge filters need to be changed when the head loss is greater than _____ psi. Recharge softener with salt as needed.

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Standard Operating Procedure (SOP)
Tasks Calendar

Task	Frequency	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
PWS Name:													
Schedule of Tasks for the Year:													
° *Place an "x" in each month that the task is required or planned to be performed, then enter the date or a "✓" when task is completed.*													
Submit previous month's operation report to DOH by the 10th	Monthly												
Check distribution system chlorine residual	__ times per Month												
Collect Total Coliform Sample(s)	Quarterly												
Exercise emergency generator for 30 minutes under full load conditions and check all fluid and fuel levels	Monthly												
Inspect wellheads, controls, seals, vent and screen.	Monthly												
Inspect tank overflow, vent screens, and hatches	Monthly												
Inspect chemical feed pump(s), seals, tubing, injection points etc.	Monthly												
Lubricate pumps, motors, blowers, and all moving/rotating equipment	Quarterly												
Inspect all pump house water lines, gaskets and fittings for corrosion and leaks	Quarterly												

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Standard Operating Procedure (SOP)
Tasks Calendar

PWS Name:													

Schedule of Tasks for the Year:

° *Place an "x" in each month that the task is required or planned to be performed, then enter the date or a "✔" when task is completed.*

Task	Frequency	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Clean and inspect chemical solution tanks	Quarterly												
Calibrate chemical feed pumps	Quarterly												
Review the attached DOH supplied sampling requirements chart, and collect any that are due	Quarterly												
Flush dead end lines in distribution system	____ times per year												
Flush distribution system using unidirectional flushing plan and exercise all valves	1-2 times per year												
Prepare and distribute Annual Water Quality Report (AWQR) to Consumers	Annual												
Submit AWQR to Health Dept and DEC, include certification that AWQR was delivered to consumers	Annual												
Update emergency plan and emergency contact information, provide update info to Health Dept	Annual												

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Standard Operating Procedure (SOP)
Tasks Calendar

Task	Frequency	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
PWS Name:													
Schedule of Tasks for the Year:													
° *Place an "x" in each month that the task is required or planned to be performed, then enter the date or a "✓" when task is completed.*													
Inspect storage tanks for defects, leaks, and sanitary deficiencies - clean and repair as needed	Annual												
Confirm all backflow prevention devices are tested by a certified tester	Annual												
Exercise all fire hydrants and check all fire hydrant valves	Annual												
Clean, inspect and repair all safety equipment	Annual												
Perform building preventative maintenance	Annual												

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