

Oregon Water System Treatment Worksheet

System Name: _____ **Date:** _____

PWS ID #: 41 **Staff Signature:** _____ (County / DWP) circle one

Item	Points
Treatment system size (population served or flow whichever is greater)	
Population served	1/10,000 (max 30)
Average daily flow	1/1 mgd of flow (max 30)
Treatment system water source	
Groundwater	3
Surface Water or Groundwater Under the Influence of Surface Water	5
Chemical Treatment/Addition Process	
Fluoridation	5
Disinfection	
Ultraviolet	2
UV with Chlorine Residual	5
Ammonia/Chlorination	3
Chlorine	5
Mixed Oxidants	7
Ozonization (on-site generation)	10
Residual Maintenance	0
pH Adjustment	
Slaked-Quicklime (Calcium Oxide)	5
Hydrated Lime (Calcium Hydroxide)	4
All others (hydrochloric acid, sodium hydroxide, sulfuric acid, sodium carbonate)	1
Coagulation & Flocculation process	
Chemical addition (1 point for each type of chemical coagulant or polymer added, maximum 5 points)	1-5
Rapid Mix Units	
Mechanical Mixers	3
Injection Mixers	2
In-line blender mixers	2
Flocculation Units	
Hydraulic flocculators	2
Mechanical flocculators	3
Clarification and Sedimentation Process	
Adsorption Clarifier	10
Horizontal-flow (rectangular basins)	5
Horizontal-flow (round basins)	7
Up-flow solid contact sedimentation	15
Inclined-plate sedimentation	10
Tube sedimentation	10
Dissolved air flotation	10
Filtration Process	
Single media filtration	3
Dual or mixed media filtration	5
Microscreens/Membrane Filtration	5
Direct	5

Diatomaceous earth	12	
Slow sand filtration	5	
Cartridge/bag filters	5	
Pressure or greensand filtration	10	
Stability or Corrosion Control		
Slaked-Quicklime (calcium oxide)	10	
Hydrated Lime (calcium hydroxide)	8	
Caustic soda (sodium hydroxide)	6	
Orthophosphate	5	
Soda ash (sodium carbonate)	4	
Aeration: Packed tower, Diffusers	3	
Calcite	2	
Others: sodium bicarbonate, silicates	4	
Other Treatment Processes		
Aeration	3	
Packed tower aeration	5	
Ion exchange/softening	5	
Lime-soda ash softening	20	
Copper sulfate treatment	5	
Powdered activated carbon	5	
Potassium permanganate	5	
Special Processes	15	
Sequestering (polyphosphates)	3	
Residuals Disposal		
Discharge to lagoons	5	
Discharge to lagoons and then raw water source	8	
Discharge to raw water	10	
Disposal to sanitary sewer	3	
Mechanical dewatering	5	
On-site disposal	5	
Land application	5	
Solids composting	5	
Facility Characteristics		
Instrumentation		
The use of SCADA or similar instrumentation systems to provide data with no process control	1	
The use of SCADA or similar instrumentation systems to provide data with partial process control	3	
The use of SCADA or similar instrumentation systems to provide data with complete process control	5	
Clear well size less than average day design flow	5	
Total		

Classification of Water Treatment Plants

Class	Points
Water Treatment 1	1-30
Water Treatment 2	31 to 55
Water Treatment 3	56 to 75
Water Treatment 4	76 or more

Systems using a Conventional Filtration Treatment Plant to treat surface water or groundwater under the influence of surface water are classified as Water Filtration and must have an operator who has a valid Water Treatment 2 or higher certification and a Filtration Endorsement.