

		Abbreviations: DO: dissolved oxygen, N: nitrogen, OM: organic matter, P: phosphorus, Prev: preventing, comp: compound	Treatment functions	Ctrl. solids			Ctrl. pH			Ctrl. DO & CO ₂		Ctrl. N comp		Ctrl. OM		Ctrl. P comp		Ctrl. metals					Prev. diseases	Ctrl. temp		
				Settleable	Suspend. fine	pH	Alkalinity	Hardness	DO	CO ₂	Ammonia N	Nitrate	nitro. gas	Solid	Dissolved	Solid P	Dissolved P	Iron	Aluminium	Zinc	Copper	Cadmium				
																							Heat	Cool		
Technical solutions																										
Settleable particle removal	Feed management	++	++	++										++	++	++							+	++	++	
	Water exchange	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++	+	++	++	
	Sediment trap in plug flow raceway	++						+	+	+				++	+								+			
	Dual drain	++						+	+	+				++	+								+			
	Horizontal flow settling basin	++						+	+	+				++	+								+			
	Standpipe	++						+	+	+				++	+								+			
	Lamella separation	++						+	+	+				++	+								+			
	Radial flow settler	++						+	+	+				++	+								+			
Screen filters	Hydrocyclones	++						+	+	+				++	+								+			
	Drum filter		++					+	+	+				++	+								+			
	Vertically rotating disk filter		++					+	+	+				++	+								+			
	Rotating belt filter		++					+	+	+				++	+								+			
	Horizontally rotating disk filter		++					+	+	+				++	+								+			
	Triangler		++					+	+	+				++	+								+			
	Bowed screens		++					+	+	+				++	+								+			
	Stacked trays		++					+	+	+				++	+								+			
Granular media filters	Geotextile bag filter		++					+	+	+				++	+								+			
	Cartridge filter		++	++				+	+	+				++	+								+			
	Membrane		++	++				+	+	+				++	+							++				
	Unpressurized granular media filter		++		-			+	+	++				++	+								+			
Diffusers	Pressurized granular media filter		++		-			+	+	++				++	+								+			
	Continuously back-flushed gr. m. filter		++		-			+	+	++				++	+								+			
	Vacuum airlift fractionator		++	++	+			+	+	+		+	++	++									+			
	Cyclonic foam fractionator		++	++				+	+	+		+	++	++									+			
	Airlift fractionator		++	++				+	+	+		+	++	++									+			
	Seawater addition				++	++				+									+	+	+	+				
	Sea-shell / limestone filter				++	++	++			+	+								+	+	+	+				
	Lye (sodium hydroxide) (NaOH)				++					+	+									+	+	+				
	Silica lye				++					+	+								++	+	+	+				
	Calcium hydroxide or slaked lime (Ca(OH)2)	+	++	++	++	++				+	+		++		++	++				+	+	+				
	Calcium Carbonate (CaCO3)				++	++	++			+	+									+	+	+				
	Quicklime (CaO)				++	++	++			+	+									+	++	++				
	Dolomite ((CaMg(CO3))2				++	++	++			+	+									+	+	+				
	Magnesium carbonate (MgCO3)				++	++	++			+	+									+	+	+				
	Sodium carbonate (Na2CO3)				++	++				+	+									+	+	+				
	Sodium bicarbonate (NaHCO3)				++	++				+	+									+	+	+				
	Diffusers	Diffusers - porous tubes							++	+																
		Diffusers - porous stones							++	+																
		Venturi injector							++	+																
		Venturi pump							++	+																
Packed column								++	++	+		++												+		
Cascade aerator								++	++	+		++												+		
Spray tower - sealed								++	++	+		++												+		
U-tubes								++	+																	
Periphyton treatment	Oxygenation cones							++	+																	
	Counter current diffusion column							++	+																	
	Low head oxygenation system (LHO)							++	+		++															
	Periphyton treatment inside culture unit				+			+	+	++			+	+	+	+										
Bio-floc treatment	Periphyton treatment outside culture unit				+			+	+	++			+	+	+											
	Bio-floc treatment inside culture unit				-	-		-		++			+	+	+											
Wetlands	Bio-floc treatment outside culture unit				-	-		-		++			+	+	+							++				
	Earthen-pond (primarily nitrification)	+			+			-	-	++	-	+	+	+	+	+										
	Earthen-pond (primarily photosynthesis)	+			+			+	+	++	++	+	+	+	+	+										
	Subsurface wetlands	+	+	+	-			-		++	+		+	+	+							++				
Bead filters	Free water surface wetlands	+	+	+	-			-		++	+		+	+	+							++				
	Propeller washed bead filter		++		-			-	-	++			++	+	+											
	Hydraulically washed bead filter		++		-			-	-	++			++	+	+											
	Pneumatically wahed bead filter		++		-			-	-	++			++	+	+											
	Rotating biological contactor (RBC)			-				++	++	++	+	+		+												
	Trickling filter			-				++	++	++		+		+										+		
	Fluidized sand filter			-				-	-	++	++			+												
	Down flow microbead filter w/CO2 stripping			-				-	-	++				+												
Floating raft and NFT aquaponic system	Down flow microbead filter			-				-	-	++				+												
	Moving bed bioreactor (MBBR)			-				-	-	++	++			+												
	NFT aquaponic system				+			-			++			++		++										
	Floating raft aquaponic system				+			-			++			++		++										
	Media bed aquaponic system				+			-	-	++	++			++	++	++										
	Adsorption													++												
	Ozone addition			++		-		+		+			++	++			++		++	++		++				
	UV irradiation			+									+	+								++				
	Physiochemical treatment (Alum, ...)	+	++	++									++		++	++										
	Disinfection of equipment																					++				
	Electromagnets																					++				
	Vaccination (Injection, osmotic, oral,...)																					++				
	Immersion heaters																							++		
	Oil and gas burners																							++		
	Heat exchangers																							++	++	
	Heat pumps																							++	++	
	Ice addition																							++	++	
	Direct mixing of water or seawater																							++	++	