

East Water Quality Transition Phases
Drinking Water Quality Parameters
April 16, 2018

Current Condition

Parameter	Units	Typical Range
Alkalinity	mg/L as CaCO ₃	4-20
Aluminum	mg/L	0.02-0.10
Calcium	mg/L	4-8
Chloride	mg/L	5-15
Free Chlorine	mg/L	1.0-3.0
Colour - Apparent	Pt-Co	10-60
Colour - True	Pt-Co	5-40
Conductivity	microS/cm	45-60
DOC	mg/L	2.0-7.0
Hardness (calculated)	mg/L as CaCO ₃	12-22
Iron	mg/L	0.05-0.20
Magnesium	mg/L	0.5-0.8
Manganese	mg/L	0.01-0.15
Nitrate	mg/L as N	0.1-0.3
pH		5.7-6.9
Sulfate	mg/L	3.0
Total Dissolved Solids	mg/L	20-50
TOC	mg/L	3.3-7.5
Turbidity	NTU	0.06-3.5
UV Transmittance	%	60-80
Zinc	mg/L	0.005-0.05
Ortho-Phosphate	mg/L	0.0
Trihalomethanes	ug/L	40-100

Interim Phase Treatment with Sodium hydroxide

Parameter	Units	Typical Range
Alkalinity	mg/L as CaCO ₃	10-25
Aluminum	mg/L	0.02-0.10
Calcium	mg/L	4-8
Chloride	mg/L	5-15
Free Chlorine	mg/L	1.0-3.0
Colour - Apparent	Pt-Co	10-60
Colour - True	Pt-Co	5-40
Conductivity	microS/cm	45-60
DOC	mg/L	2.0-7.0
Hardness (calculated)	mg/L as CaCO ₃	12-22
Iron	mg/L	0.05-0.20
Magnesium	mg/L	0.5-0.8
Manganese	mg/L	0.01-0.15
Nitrate	mg/L as N	0.1-0.3
pH		7.0-9.0
Sulfate	mg/L	3.0
Total Dissolved Solids	mg/L	20-50
TOC	mg/L	3.3-7.5
Turbidity	NTU	0.06-3.5
UV Transmittance	%	60-80
Zinc	mg/L	0.005-0.05
Ortho-Phosphate	mg/L	0.0
Trihalomethanes	ug/L	60-140
Haloacetic Acids	ug/L	90-225

Interim Phase Treatment with Sodium hydroxide and orthophosphate

Parameter	Units	Typical Range
Alkalinity	mg/L as CaCO ₃	10-25
Aluminum	mg/L	0.02-0.10
Calcium	mg/L	4-8
Chloride	mg/L	5-15
Free Chlorine	mg/L	1.0-3.0
Colour - Apparent	Pt-Co	10-60
Colour - True	Pt-Co	5-40
Conductivity	microS/cm	45-60
DOC	mg/L	2.0-7.0
Hardness (calculated)	mg/L as CaCO ₃	12-22
Iron	mg/L	0.05-0.20
Magnesium	mg/L	0.5-0.8
Manganese	mg/L	0.01-0.15
Nitrate	mg/L as N	0.1-0.3
pH		7.0-9.0
Sulfate	mg/L	3.0
Total Dissolved Solids	mg/L	20-50
TOC	mg/L	3.3-7.5
Turbidity	NTU	0.06-3.5
UV Transmittance	%	60-80
Zinc	mg/L	<1.0
Ortho-Phosphate	mg/L	0.0-2.0
Trihalomethanes	ug/L	60-140
Haloacetic Acids	ug/L	90-225

Long Term Treatment

Parameter	Units	Typical Range
Alkalinity	mg/L as CaCO ₃	20-40
Aluminum	mg/L	<0.1
Calcium	mg/L	10-25
Chloride	mg/L	5-15
Free Chlorine	mg/L	0.5-2.0
Colour - Apparent	Pt-Co	<1
Colour - True	Pt-Co	<1
Conductivity	microS/cm	50-150
DOC	mg/L	<2.3
Hardness (calculated)	mg/L as CaCO ₃	25-70
Iron	mg/L	<0.3
Magnesium	mg/L	0.5-0.8
Manganese	mg/L	<0.05
Nitrate	mg/L as N	0.1-0.3
pH		7.3-8.3
Sulfate	mg/L	20-35
Total Dissolved Solids	mg/L	50-150
TOC	mg/L	<2.3
Turbidity	NTU	<1.0
UV Transmittance	%	>92
Zinc	mg/L	<1
Ortho-Phosphate	mg/L	1.0-2.0
Trihalomethanes	ug/L	<100
Haloacetic Acids	ug/L	<80