

Table 1

Feedstock Water monitoring				
Parameter	Unit	Method	Analytical Method	Frequency
Color	CU	Lab Testing	SM 2120-B	3 times per day
Temperature	Celsius	Online	SM 2550	Continuously
TOC	mg/l	Lab Testing	SM 5310-B	once per day
pH	S.U.	Online	SM 4500-H+	Continuously
LSI	n/a	Calculation	SM 2330	once per day
Fluoride	mg/l	Lab Testing	EPA 300.0	once per day
Turbidity	NTU	Online	SM 2130-B	Continuously
TSS	mg/l	Lab Testing	SM 2540	once per day
TDS	mg/l	Lab Testing	SM 2540-C	once per day
TDS	mg/l	Calculation	Summation of Major Ions	once per day
Conductivity	uS/cm	Online	SM 2510B	Continuously
Total hardness	mg/l as CaCO ₃	Lab Testing	SM 2340B	once per day
Calcium Hardness	mg/l as Ca	Lab Testing	SM 2340B	once per day
Magnesium Hardness	mg/l as Mg	Lab Testing	SM 2340B	once per day
Alkalinity	mg/l as CaCO ₃	Lab Testing	SM 2320B	once per day
Ammonia	mg/l as N	Lab Testing	EPA 350.1	once per day
Chloride	mg/l	Lab Testing	EPA 300.0	once per day
H ₂ S	mg/l	Lab Testing	SM 4500-S ₂ -H	once per day
Iron-Fe ²⁺ (Dissolved)	mg/l	Lab Testing	SM 3500-Fe B	once per day
Iron (total)	mg/l	Lab Testing	SM 3500-Fe B	once per day
Manganese	mg/l	Lab Testing	EPA 200.7/3010	once per day
Sodium	mg/l	Lab Testing	EPA 200.7/3010	once per day
Potassium	mg/l	Lab Testing	SM 3500-K/ EPA 200.7	once per day
Sulfate	mg/l	Lab Testing	EPA 300.0	once per day
Calcium Carbonate Precipitation Potential (CCPP)	mg/l	Calculation	SM 2330	once per day
Silica (mg/l)	mg/l	Lab Testing	EPA 200.7	once per day
Sand concentration	mg/l	Lab Testing	ASTM D3977-97	once per day
Oxidation Reduction Potential (ORP)	mV	Online	SM 2580	Continuously
Silt Density Index (SDI)	15-min	field test	ASTM D4189-07	once per day

Notes to Table 1:

1. Project Company may sample the Feedstock Water more frequently than the sampling frequencies required in Table 1.
2. The testing and sampling frequency in Table 1 relates to routine operation with the same wells. If the supplying well/s are changed, the Project Company shall perform at least one additional sampling and test per well change, as shall be detailed in the Feedstock Water Monitoring and Sampling Protocol, until the quality becomes stable.
3. All Analytical Methods listed in Table 1 shall comply with F.A.C. 62-550

Table 2

Product Water Monitoring				
Parameter	Unit	Method	Analytical Method	Frequency
Color	CU	Lab Testing	SM 2120-B	3 times a day
pH	S.U.	Online	SM 4500-H+	Continuously
TDS	mg/l	Lab Testing	SM 2540-C	once per day
Total hardness	mg/l as CaCO ₃	Lab Testing	SM 2340-B	once per day
Alkalinity	mg/l as CaCO ₃	Lab Testing	SM 2320-B	once per day
TOC	mg/L	Lab Testing	SM 5310-B	once per day
Total Ammonia	mg/l as N	Lab Testing	EPA 350.1	once per day
Chloride	mg/l	Lab Testing	EPA 300.0	once per day
Free Chlorine	mg/l	Online	Hach Method 10241	Online continuous monitoring
Total Chlorine	mg/l as Cl ₂	Online/Lab testing	SM 4500-CL	Online continuous monitoring
Monochloramine	mg/l as Cl ₂	Online/Lab testing	Hach Method 10200	Online continuous monitoring
Chlorine to Ammonia as N Ratio	n/a	Calculation	n/a	Continuous
Sulfate	mg/l	Lab Testing	EPA 300.0	once per day
H2S	mg/l	Lab Testing	SM 4500-S2-H	once per day
TTHM (trihalomethanes)	n/a	Lab Testing	EPA 524.2	quarterly
HAA5 (Haloacetic acids)	n/a	Lab Testing	EPA 552.2	quarterly
Fluoride	mg/l	Lab Testing	EPA 300.0	once per day
Iron	mg/l	Lab Testing	SM 3500-Fe B	once per day
Manganese	mg/l	Lab Testing	EPA 200.7/3010	once per day
Sodium	mg/l	Lab Testing	EPA 200.7/3010	once per day
Turbidity	NTU	Online	SM 2130-B	Online continuous monitoring
LSI	n/a	calculation	SM 2330	once per day
CCPP	n/a	calculation	SM 2330	once per day

Notes to Table 2:

Annex G to Comprehensive Agreement

Feedstock Water Specifications

Parameter	Unit	Maximum	Average	Minimum
Color	CU	105	73	12
Temperature	Celsius	25 28	22 26	18.5 23
TOC	mg/L	17.6	14.4	9.9
pH	n/a	7.6	7.3	7.1
LSI	n/a	1.4	0.98	0.31
Turbidity	NTU	0.82	0.44	0.19
TSS	mg/L	3	1	n/a
TDS	mg/L	341	316	273
Total hardness	mg/L as CaCO ₃	238	226	218
Calcium Hardness	mg/L as Ca	85.7	79.8	75.3
Magnesium Hardness	mg/L as Mg	8.3	5.5	2.9
Alkalinity	mg/L as CaCO ₃	230	215	204
Total Ammonia	mg/L as N	0.55	0.46	0.39
Chloride	mg/L	68	59	52
H ₂ S	mg/L	0.35	0.2	0.1
Total Iron	mg/L	1.72	0.42	0.03
Manganese	mg/L	0.006	0.004	0.003
Sodium	mg/L	44.29	36.57	31.2
Potassium	mg/L	1.16	1.16	1.16
Sulfate	mg/L	21	13	2

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Parameter	Unit	Maximum	Average	Minimum
Calcium Carbonate Precipitation Potential (CCPP)	mg/L	n/a	13.5	n/a
Silica (mg/l)	mg/L	10.7	8.13	6.8
Sand concentration	mg/L	1	0.5	0.1
Sand/soil particle size distribution	µm	n/a	n/a	>5 µm – 100% of the particles >50 µm – 99% of the particles

Feedstock Water Values			
Parameter	Unit	Maximum	Design
Flow	m ³ /day	244,445	222,222
	MGD	65	59
	gpm	44,844	40,767
Pressure	psig	61	40-61
Oxidation Reduction Potential (ORP)	mV	-119	-140
Silt Density Index (SDI)	15-min	4.6	3.4
Total VOCs *	µg/l	BDL	BDL
Total SVOCs *	µg/l	BDL	BDL
Total PFAS *	µg/l	BDL	BDL
Arsenic *	µg/l	BDL	BDL

*There is no commitment to reducing VOCs, SVOCs, PFAS, heavy metals, or radioactive materials. According to the analysis obtained, there is no contamination of the Feedstock Water with these substances. If in the future the Feedstock Water becomes contaminated, additional treatment steps may be required to meet the Legal Standards.

** “BDL” indicates a measurement below the detection limit of the applicable testing methodology.

The City and the Project Company each acknowledge and agree that:

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- (1) the Design Requirements and Construction Standards do not take into account any substance or condition of the Feedstock Water that is not specifically identified in this Annex G; and
- (2) if any substance in or condition of the Feedstock Water that is not specifically identified in this Annex G is discovered in the Feedstock Water after the Effective Date, any Extra Work necessary to pre-treat the Feedstock Water to address such substance in or condition of the Feedstock Water will be subject to the provisions of Section 8.02 (*City-Initiated Changes*) of this Agreement (provided that Section 8.02 (*City-Initiated Changes*) of this Agreement shall not be applicable where the presence of such substance does not adversely affect the Project Company's performance of the Work, the Project Company's ability to satisfy the condition set out in Section 4.09(a)(i) (*Performance Testing*) of this Agreement or the Project Company's ability to satisfy the Product Water Quality Guarantee).

Annex H-1 to Comprehensive Agreement

Product Water Legal Standards

PART 1 – FLORIDA ENVIRONMENTAL PROTECTION AGENCY STANDARDS

**CHAPTER 62-550
DRINKING WATER STANDARDS, MONITORING, AND
REPORTING**

Such chapter and Chapters 62-555 and 62-560, F.A.C., were promulgated to implement the requirements of the Florida Safe Drinking Water Act

DISINFECTION BYPRODUCT & RADIONUCLIDES		MCL
DISINFECTION BYPRODUCT	Bromate	0.010 mg/L
DISINFECTION BYPRODUCT	Chlorite	1.0 mg/L
DISINFECTION BYPRODUCT	TTHM	0.080 mg/L
DISINFECTION BYPRODUCT	HAA5	0.060 mg/L
RADIONUCLIDES	Combined radium226 and radium228	5 pCi/L
RADIONUCLIDES	Gross alpha particle activity including radium226 but excluding radon and uranium	15 pCi/L
RADIONUCLIDES	Uranium	30 ug/L

MAXIMUM CONTAMINANT LEVELS (MCL) FOR INORGANIC COMPOUNDS

FEDERAL CONTAMINANT ID NUMBER	CONTAMINANT	MCL (mg/L)
1074	Antimony	0.006
1005	Arsenic	0.05 through 12/31/2004 0.010 on and after 01/01/2005
1094	Asbestos	7 MFL
1010	Barium	2
1075	Beryllium	0.004
1015	Cadmium	0.005
1020	Chromium	0.1
1024	Cyanide (as free Cyanide)	0.2
1025	Fluoride	4

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1030	Lead	0.015
1035	Mercury	0.002
1036	Nickel	0.1
1040	Nitrate	10 (as N)
1041	Nitrite	1 (as N)
	Total Nitrate and Nitrite	10 (as N)
1045	Selenium	0.05
1052	Sodium	160
1085	Thallium	0.002

MAXIMUM CONTAMINANT LEVELS FOR VOLATILE ORGANIC CONTAMINANTS

FEDERAL CONTAMINANT ID NUMBER	CONTAMINANT & (CHEMICAL ABSTRACT SYSTEM (CAS) NUMBER)	MCL (mg/L)
2977	1,1-Dichloroethylene (75-35-4)	0.007
2981	1,1,1-Trichloroethane (71-55-6)	0.2
2985	1,1,2-Trichloroethane (79-00-5)	0.005
2980	1,2-Dichloroethane (107-06-2)	0.003
2983	1,2-Dichloropropane (78-87-5)	0.005
2378	1,2,4-Trichlorobenzene (120-82-1)	0.07
2990	Benzene (71-43-2)	0.001
2982	Carbon tetrachloride (56-23-5)	0.003
2380	cis-1,2-Dichloroethylene (156-59-2)	0.07
2964	Dichloromethane (75-09-2)	0.005
2992	Ethylbenzene (100-41-4)	0.7
2989	Monochlorobenzene (108-90-7)	0.1
2968	o-Dichlorobenzene (95-50-1)	0.6
2969	para-Dichlorobenzene (106-46-7)	0.075
2996	Styrene (100-42-5)	0.1
2987	Tetrachloroethylene (127-18-4)	0.003
2991	Toluene (108-88-3)	1
2979	trans-1,2-Dichloroethylene (156-60-5)	0.1
2984	Trichloroethylene (79-01-6)	0.003
2976	Vinyl chloride (75-01-4)	0.001
2955	Xylenes (total) (1330-20-7)	10

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MAXIMUM CONTAMINANT LEVELS FOR SYNTHETIC ORGANIC CONTAMINANTS

FEDERAL CONTAMINANT ID NUMBER	CONTAMINANT & (CAS NUMBER)	MCL (mg/L)	Regulatory Detection Limit (mg/L)
2063	2,3,7,8-TCDD (Dioxin) (1746-01-6)	3 X 10 ⁻⁸	5 x 10 ⁻⁹
2105	2,4-D (94-75-7)	0.07	0.0001
2110	2,4,5-TP (Silvex) (93-72-1)	0.05	0.0002
2051	Alachlor (15972-60-8)	0.002	0.0002
2050	Atrazine (1912-24-9)	0.003	0.0001
2306	Benzo(a)pyrene (50-32-8)	0.0002	0.00002
2046	Carbofuran (1563-66-2)	0.04	0.0009
2959	Chlordane (57-74-9)	0.002	0.0002
2031	Dalapon (75-99-0)	0.2	0.001
2035	Di(2-ethylhexyl)adipate (103-23-1)	0.4	0.0006
2039	Di(2-ethylhexyl)phthalate (117-81-7)	0.006	0.0006
2931	Dibromochloropropane (DBCP) (96-12-8)	0.0002	0.00002
2041	Dinoseb (88-85-7)	0.007	0.0002
2032	Diquat (85-00-7)	0.02	0.0004
2033	Endothall (145-73-3)	0.1	0.009
2005	Endrin (72-20-8)	0.002	0.00001
2946	Ethylene dibromide (EDB) (106-93-4)	0.00002	0.00001
2034	Glyphosate (1071-83-6)	0.7	0.006
2065	Heptachlor (76-44-8)	0.0004	0.00004
2067	Heptachlor epoxide (1024-57-3)	0.0002	0.00002
2274	Hexachlorobenzene (118-74-1)	0.001	0.0001
2042	Hexachlorocyclopentadiene (77-47-4)	0.05	0.0001
2010	Lindane (58-89-9)	0.0002	0.00002
2015	Methoxychlor (72-43-5)	0.04	0.0001
2036	Oxamyl (vydate) (23135-22-0)	0.2	0.002
2326	Pentachlorophenol (87-86-5)	0.001	0.00004
2040	Picloram (1918-02-1)	0.5	0.0001
2383	Polychlorinated biphenyls (PCBs)	0.0005	0.0001
2037	Simazine (122-34-9)	0.004	0.00007
2020	Toxaphene (8001-35-2)	0.003	0.001

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ANNEX TO COMPREHENSIVE AGREEMENT

SECONDARY DRINKING WATER STANDARDS

FEDERAL CONTAMINANT ID NUMBER	CONTAMINANT	SMCL (mg/L)*
1002	Aluminum	0.2
1017	Chloride	250
1022	Copper	1
1025	Fluoride	2
1028	Iron	0.3
1032	Manganese	0.05
1050	Silver	0.1
1055	Sulfate	250
1095	Zinc	5
1905	Color	15 color units
1920	Odor**	3 (threshold odor number)
1925	pH	6.5 - 8.5
1930	Total Dissolved Solids	500
2905	Foaming Agents	0.5

SMCL = maximum contaminant level; mg/L = milligrams per liter.

PART 2 – U.S. ENVIRONMENTAL PROTECTION AGENCY STANDARDS

NATIONAL DRINKING WATER REGULATIONS

EPA 816-F-09-004 was promulgated by the U.S. Environmental Protection Agency.

PRIMARY DRINKING WATER STANDARDS

CONTAMINANT	MCL or TT (mg/L)*
Acrylamide	TT
Alachlor	0.002
Alpha/photon emitters	15 picocuries per Liter (pCi/L)
Antimony	0.006
Arsenic	0.010
Asbestos (fibers >10 micrometers)	7 million fibers per Liter (MFL)
Atrazine	0.003
Barium	2
Benzene	0.005
Benzo(a)pyrene (PAHs)	0.0002

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ANNEX TO COMPREHENSIVE AGREEMENT

Beryllium	0.004
Beta photon emitters	4 millirems per year
Bromate	0.010
Cadmium	0.005
Carbofuran	0.04
Carbon tetrachloride	0.005
Chloramines (as Cl ₂)	MRDL=4.0
Chlordane	0.002
Chlorine (as Cl ₂)	MRDL=4.0
Chlorine dioxide (as ClO ₂)	MRDL=0.8
Chlorite	1.0
Chlorobenzene	0.1
Chromium (total)	0.1
Copper	TT; Action Level=1.3
<i>Cryptosporidium</i>	TT
Cyanide (as free cyanide)	0.2
2,4-D	0.07
Dalapon	0.2
1,2-Dibromo-3- chloropropane (DBCP)	0.0002
o-Dichlorobenzene	0.6
p-Dichlorobenzene	0.075
1,2-Dichloroethane	0.005
1,1-Dichloroethylene	0.007
cis-1,2-Dichloroethylene	0.07
trans-1,2, Dichloroethylene	0.1
Dichloromethane	0.005
1,2-Dichloropropane	0.005
Di(2-ethylhexyl) adipate	0.4
Di(2-ethylhexyl) phthalate	0.006
Dinoseb	0.007
Dioxin (2,3,7,8-TCDD)	0.00000003
Diquat	0.02
Endothall	0.1
Endrin	0.002
Epichlorohydrin	TT
Ethylbenzene	0.7
Ethylene dibromide	0.00005
Fecal coliform and <i>E. coli</i>	MCL
Fluoride	4.0
<i>Giardia lamblia</i>	TT
Glyphosate	0.7
Haloacetic acids (HAA5)	0.060
Heptachlor	0.0004
Heptachlor epoxide	0.0002
Heterotrophic plate count (HPC)	TT

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ANNEX TO COMPREHENSIVE AGREEMENT

Hexachlorobenzene	0.001
Hexachloro-cyclopentadiene	0.05
Lead	TT; Action Level=0.015
<i>Legionella</i>	TT
Lindane	0.0002
Mercury (inorganic)	0.002
Methoxychlor	0.04
Nitrate (measured as Nitrogen)	10
Nitrite (measured as Nitrogen)	1
Oxamyl (Vydate)	0.2
Pentachlorophenol	0.001
Picloram	0.5
Polychlorinated biphenyls (PCBs)	0.0005
Radium 226 and Radium 228 (combined)	5 pCi/L
Selenium	0.05
Simazine	0.004
Styrene	0.1
Tetrachloroethylene	0.005
Thallium	0.002
Toluene	1
Total Coliforms	5.0 percent
Total Trihalomethanes (TTHMs)	0.080
Toxaphene	0.003
2,4,5-TP (Silvex)	0.05
1,2,4-Trichlorobenzene	0.07
1,1,1-Trichloroethane	0.2
1,1,2-Trichloroethane	0.005
Trichloroethylene	0.005
Turbidity	TT
Uranium	30pg/L
Vinyl chloride	0.002
Viruses (enteric)	TT
Xylenes (total)	10

SECONDARY DRINKING WATER STANDARDS

CONTAMINANT	MCL or TT (mg/L)*
Aluminum	0.05 to 0.2 mg/L
Chloride	250 mg/L
Color	15 (color units)
Copper	1.0 mg/L
Corrosivity	Noncorrosive
Fluoride	2.0 mg/L
Foaming Agents	0.5 mg/L

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ANNEX TO COMPREHENSIVE AGREEMENT

Iron	0.3 mg/L
Manganese	0.05 mg/L
Odor	3 threshold odor number
pH	6.5-8.5
Silver	0.10 mg/L
Sulfate	250 mg/L
Total Dissolved Solids	500 mg/L
Zinc	5 mg/L

MCL = maximum contaminant level

MRDL = maximum residual disinfectant level

TT = treatment technique

mg/L = milligrams per liter

*units are in mg/L unless otherwise noted

Annex H-2 to Comprehensive Agreement

Product Water Contract Standards

[Attached]

Annex H-2 - 1

ANNEX TO COMPREHENSIVE AGREEMENT

Product Water Quality - City Contractual Requirements **		
Parameter	Unit	Contractual Requirement
Color	CU	< 5 @ 90% of the time <8 @98% of the time
Alkalinity	mg/l as CaCO3	40-150
Free Ammonia	mg/L as N	<0.1
Cl ₂ to NH ₃ as N Ratio	n/a	4.5:1 to 5:1
Calcium	mg/L	n/a [‡]
Magnesium	mg/L	n/a [‡]
Carbon dioxide	mg/L	n/a [‡]
Chloride	mg/L	<100
Fluoride	mg/L	0.7 to 1.0
H ₂ S	mg/l	<0.1
Iron	mg/l	<0.15 0.2
Manganese	mg/l	<0.02
pH	n/a	8.5-9.5
Sodium	mg/l	<50
Sulfate	mg/L	<50
TDS	mg/l	<500
Total hardness	mg/l as CaCO ₃	40-160
Turbidity	NTU	<0.3 @ 90% of time <1 @ 100% of time
LSI	n/a	>0.2
CCPP	mg/l as CaCO ₃	2-10
Virus inactivation *	n/a	4-log
TTHM	µg/l	<60
HAA5	µg/l	<40
Corrosion Inhibitor	mg/L PO ₄ as P	>1
Chloramines Residual (during normal operations)	mg/L	Max Range: 5.3 to 6.0 (Average = 3.6 mg/L)
Free Chlorine Residual (during distribution system superchlorination)	mg/L	Max Range: 5.5 to 6.0

Fluoride requirements removed due to state regulations

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ANNEX TO COMPREHENSIVE AGREEMENT

Notes to Annex H-2

* The facility testing for this parameter shall be certified by the State of Florida for 4-log virus treatment under Rule 62-550-828 of the Florida Administrative Code (the Ground Water Rule).

** There is no commitment to reducing VOCs, SVOCs, PFAS, heavy metals, or radioactive materials. According to the analysis obtained, there is no contamination of the Feedstock Water with these substances. If in the future the Feedstock Water becomes contaminated, additional treatment steps may be required to meet the Contract Standards.

‡ Parameters not to be assessed.

The City acknowledges that in accordance with the Comprehensive Agreement, the Project Company has delivered to the City and the City has received a study from a qualified consultant acceptable to the City regarding the optimal corrosion control treatment in respect of the Feedstock Water available from the City Wellfield. The City has determined the Contract Standards as set out in this Annex H-2 and such Contract Standards will be applicable to the Project.

Annex H-3 to Comprehensive Agreement

Non-Conforming Product Water Deductions

For purposes of this Annex H-3, a “Mark” means one instance of a recorded failure of the Product Water made available by the Project Company to the City at the Product Water Delivery Point to meet any of the quality standards referenced below. A maximum of one Mark per compliance monitoring period may be recorded for all quality standards having the same compliance monitoring period for purposes of calculating deductions pursuant to this Annex. If multiple Marks are recorded in the same compliance monitoring period, the Mark in respect of the quality standard with the highest deduction shall prevail. With respect to quality standards that are monitored daily, Marks can occur on a daily basis, and the resulting deductions for each Mark will be assessed daily and will accumulate for each day that a Mark occurs (in excess of the allowable Marks per quarter).

Water Quality Standard	Compliance Monitoring Period (the “CMP”)	Allowable Marks per quarter	Deductions for each Mark in excess of allowable Marks per calendar quarter	
1. Legal Standards as set forth in Annex H-1 (Product Water Legal Standards)	1.1. Legal Standards, the violation of which results in the City being required under Applicable Law to issue a “boil water” notice	As required by Applicable Law	0	Pro rata deduction from the Contract Payment based on the number of CMPs in a Contract Month with verified Mark divided by the total number of CMPs in such Contract Month
	1.2 Exceeding primary drinking water standard maximum contaminant level (MCL)	As required by Applicable Law	1	\$50,000 deduction from the Contract Payment
2. Contract Standards as set forth in Annex H-2 (Product Water Contract Standards)	2.1. <ul style="list-style-type: none"> • Color • pH • Corrosion inhibitor • Sulfate • TDS • Fluoride 	Daily average	1	\$8,000 deduction from the Contract Payment

Annex J to Comprehensive Agreement

Baseline Water Specifications

Table 1. Feedstock Water Baseline Specifications

Parameter	Unit	Maximum	Average	Minimum
Color	CU	70	41	34
Temperature	Celsius	25 28	22 26	21 23
Total Iron	mg/L	0.59	0.46	0.30

Table 2. Product Water Baseline Specifications

Parameter	Unit	Contractual Requirement
Cl ₂ to NH ₃ as N Ratio	n/a	n/a
Fluoride	mg/L	0.5-0.8
Turbidity	NTU	<1
Corrosion Inhibitor	mg/L	2.0 - 2.5
Chloramines Residual (during normal operations)	mg/L	3.0 - 3.6
Free Chlorine Residual (during distribution system superchlorination)	mg/L	n/a

Fluoride requirements removed due to state regulations

Annex L-2 to Comprehensive Agreement

Guaranteed Maximum Chemical Consumption

		Estimated Design Consumption	Estimated Design Consumption	Guaranteed Maximum Chemical Consumption	Guaranteed Maximum Chemical Consumption	Design System + Dosing PPM
Chemical	Chemical Concentration %	Kg/Day	Lb/Day	Kg/Day	Lb/Day	
Hydrochloric acid (HCl)	31.5%	21	45	79	174	IX & NF air stripping tower chemical cleaning.
Sodium hypochlorite (NaOCl)	10.5%	15,692	34,596	25,264	55,697	IX: PMF feed Header -2 ppm, PMF Backwash Header- 5 ppm shock dosage, Plant Product Header - 7.32 ppm
Ammonium Sulfate ((NH4)SO4)	39.0%	2,483	5,474	3,509	7,735	Plant Product Header - 4.43 ppm
Sodium Hydroxide (NaOH)	50.0%	14,206	31,308	21,547	47,504	Plant Product Header - 28 ppm, IX regeneration & NF CIP.
Sodium chloride (NaCl)	98.0%	8,988	19,816	29,773	65,639	IX regeneration
Sulfuric Acid (H2SO4)	93.0%	33,163	73,111	39,397	86,856	NF SCF feed header - 162 ppm, IX regeneration waste neutralization.
SBS (NaHSO3)	40.0%	680	1,499	899	1,982	IX feed header - 2 ppm, NF SCF feed header - 6.3 ppm
Antiscalant	100.0%	196	433	1,122	2,474	NF feed header -Nalco Dosage. PC-1850T - 1 PPM
Hexafluorosilicic acid (H2[SIF6])	23.0%	794	1,752	1,091	2,406	Plant Product Header - 0.88 ppm
Citric acid (C3H5O(COOH))	50.0%	66	145	252	557	NF- CIP

Fluoride requirements removed due to state regulations

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		Estimated Design Consumption	Estimated Design Consumption	Guaranteed Maximum Chemical Consumption	Guaranteed Maximum Chemical Consumption	Design System + Dosing PPM
Chemical	Chemical Concentration %	Kg/Day	Lb/Day	Kg/Day	Lb/Day	
Ferric chloride (FeCl3)	40.0%	922	2,032	2,658	5,861	IX PMF Feed header- 5.8 ppm
Corrosion inhibitor	100.0%	2,138	4,713	2,741	6,043	Plant Product Header -Nalco Dosage. C-4
Calcium chloride (CaCL2)	32%	2,136	4,708	30,815	67,935	Plant Product Header
Actual Monthly Chemical Consumption Calculation (for each Chemical)			Based on the amount of Chemicals actually consumed by the Project Company during operations (excluding periods during which Chemical consumption is not tracked as a result of a Relief Event or as expressly stated in this Agreement).			
Annual True-Up Calculation (for all Chemicals)			Pursuant to Section 7.04(a)(ii) (<i>Monthly Tracking and Annual Settlement of Chemical Consumption</i>) of this Agreement, the annual Chemical Consumption Tracking Account deficit <i>multiplied by</i> the reasonable and documented average price paid by the City for the supply of all Chemicals in the applicable Contract Year.			

Notes to Annex L-2

1. The calculations set forth above resulting in the Guaranteed Maximum Chemicals Consumption amount are based on estimated variations in the Daily Quantity Requested and the Feedstock Water values specified in Annex G (*Feedstock Water Specifications*) to this Agreement. The calculations set forth above assume that in the applicable Contract Year, (a) the Daily Quantity Requested does not exceed the Maximum Daily Requirement and (b) there is no Feedstock Water Deviation during the applicable period.
2. Project Company may introduce new Chemicals and alternate between different Chemicals during operation of the Project with the City's consent (such consent not to be unreasonably withheld, conditioned or delayed).

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exchanged with other ions in solutions with which they come in contact. These exchanges take place without any physical alteration to the IX material.

- (b) The IX resin is packed into pressure vessels where it reacts with the organic matter until the resin is saturated. Upon saturation, the Project Company regenerates the IX to restore the exhausted resin back to its proper ionic form for service.
- (c) IX resin suppliers include those as listed in Exhibit M-5 and others selected by the Project Company, subject to the requirements of Exhibit M-5.

3.22 Softening System

The Project Company shall conduct the IX resin regeneration process with a NaCl solution regularly and occasionally with a NaOH solution.

3.23 Blended Product Water

The Project Company shall design the Project to consolidate the NF (anoxic) and IX (aerobic) treated water streams at the IX regeneration basin/product tank. While each of the treatment streams result in different chemistry, by consolidating and mixing the two streams, the mixed effluent reaches the required Product Water quality standards set out in this Agreement.

3.24 Post Treatment Chemical Dosing

- (a) The Project Company expects to disinfect the Product Water prior to making the Product Water available to the City. The Project Company expects to dose five Chemicals as described below to reach the Product Water standards required by this Agreement normally. During abnormal conditions the Project Company may add Calcium Chloride dosing to reach such standards.
 - (i) Sodium Hypochlorite (NaOCl);
 - (ii) Ammonium Sulfate ((NH₄)₂SO₄);
 - ~~(iii) Fluoride (H₂SiF₆); and~~ Fluoride requirements removed due to state regulations
 - (iv) Corrosion Inhibitor.
 - (v) Caustic Soda (NaOH).
 - (vi) Calcium Chloride (CaCl₂)
- (b) NaOCl and (NH₄)₂SO₄ react together to create chloramines.
- (c) Chemical dosing and storage is designed to produce the required Product Water quality specified in Annex H-2.

3.25 IX Regeneration Basin/Product Tank and Product Pumps

- (a) Design
 - (i) The two process streams (NF and IX) described above will converge and mix at the Project's Product Water tank, which shall share common walls with the IX regeneration basin. The IX regeneration basin/Product Water tank is expected to consist of two compartments, one to collect the stripped water and for use as IX regeneration water, and the other to mix the NF and IX treated water streams to

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create the Product Water. The volume of the IX regeneration basin/Product Water tank facilitates operation of the Product Water pumps.

- (ii) The IX regeneration basin/Product Water tank and associated pumping stations shall include the following components:
 - (A) Injection of treatment Chemicals either directly to the header of each Product Water pump or to the Product Water retention tank to meet FDEP (FAC) treatment requirements and achieve 4-log virus inactivation. This includes sodium hypochlorite, caustic soda, ~~hexafluoro-silicic~~ acid and corrosion inhibitor. **Fluoride requirements removed due to state regulations**
 - (B) Ammonia (Liquid Ammonium Sulfate) dosing system.
 - (C) Product Water pumps (enabling delivery of Product Water to Fiveash via the transmission piping between the City Wellfield and Fiveash).
 - (D) Final refinement using micronic cartridge filters.
- (b) Equipment and Material Selection: All process equipment and wetted materials shall conform to NSF International Standard 61 as adopted by Rule 62-555.335 (FAC) or an acceptable alternative as identified in Rule 62-555.320 (FAC).
- (c) Connection to Transmission Piping: Product Water from the Project will be connected to a transmission line between the City Wellfield and Fiveash. The related pipeline and the flushing/disinfection required are included in the City Infrastructure Obligations and are not part of the DB Work. Annex B-1 (*City Infrastructure Obligations*) to this Agreement provides additional information for the relevant Tie-In Point.
- (d) Pumping Requirements: The required pumps, features and designed redundancies are identified in *Table M-2*. The details in *Table M-2* are indicative and subject to change during detailed design of the Project.

Table M-2b Pumping Requirements ¹					
Pump Service	Configuration	VFD (Y / N)	Flow (gpm)	TDH (ft)	Power (hp)
Project Feed Booster Pumps	5 x 25%	Y	10,523	120	500
NF Feed Pumps	6 x 20%	Y	4130	260	425
NF Booster Pumps	6 x 20%	N	3050	70	100
NF Flushing Pumps	2 x 50%	N	4500	70	120
NF CIP Pumps	1 x 100%	Y	4750	135	250
Brine Booster Pumps	2 x 100%	Y	6160	35	100
PMF Feed Pumps	3 x 50%	Y	5560	135	290
Softening Regeneration Pumps	2 x 100%	N	50	85	2
IX Regeneration Pump	3 x 50%	N	220	110	10
Softening IX Backwash Pumps	3 x 50%	N	250	85	10
PMF Backwash Pumps	3 x 50%	N	1490	85	50
IX Backwash Pumps	2 x 100%	N	340	75	10
Product Pumps	5 x 25%	Y	8680	115	425
Neutralization Tank Transfer Pumps	2 x 100%	N	1400	80	50
MMF Feed Tank Stripping Tower Cleaning Pump	1x100%	N	TBD	TBD	TBD