

## RP-1 Recycled Water Quality (2020)

Parameter	Units	Average <sup>1</sup>	Minimum <sup>1</sup>	Maximum <sup>1</sup>
BOD	mg/L	<2	<2	2
TSS	mg/L	<2	<2	<2
pH	units	7.0	6.8	7.1
Turbidity	NTU	0.7	0.6	0.8
Total Coliform (7d median)	MPN/100mL	<1	<1	<1
EC <sup>2</sup>	µmhos/cm	741	724	754
TDS	mg/L	542	516	585
TOC	mg/L	6.4	5.5	7.5
NH <sub>3</sub> -N	mg/L	<0.1	<0.1	0.2
Bicarbonate Alkalinity	mg/L as CaCO <sub>3</sub>	157	147	177
TIN	mg/L	4.3	3.6	4.9
Boron	mg/L	0.3	0.3	0.3
Calcium	mg/L	48	43	55
Carbonate Alkalinity	mg/L as CaCO <sub>3</sub>	0	0	0
Chloride	mg/L	107	98	118
Fluoride	mg/L	0.3	0.2	0.5
Magnesium	mg/L	9	8	10
NO <sub>3</sub> -N	mg/L	4.2	3.5	4.8
Sodium	mg/L	95	84	110
Sulfate	mg/L	45	37	50
Total Hardness	mg/L as CaCO <sub>3</sub>	160	142	179
TR Aluminium	µg/L	119	71	170
TR Arsenic	µg/L	<2	<2	<2
TR Barium	µg/L	18	13	20
TR Chromium	µg/L	<0.6	<0.5	1.2
TR Copper	µg/L	4	3	6
TR Cadmium	µg/L	<0.25	<0.25	<0.25
TR Lead	µg/L	<0.5	<0.5	<0.5
TR Manganese	µg/L	12	9	17
TR Mercury	µg/L	<0.05	<0.05	<0.05
TR Nickel	µg/L	4	3	5
TR Selenium	µg/L	<2	<2	<2
TR Silver	µg/L	<0.25	<0.25	<0.25
TR Zinc	µg/L	35	23	54
Silica	mg/L	23	18	26
Orthophosphate	mg/L	6.1	1.8	9.6

<sup>1</sup> Average, Minimum, and Maximum values based on monthly averages

<sup>2</sup> EC values based on 24-hour composite lab samples, not continuous monitoring

## RP-4 Recycled Water Quality (2020)

Parameter	Units	Average <sup>1</sup>	Minimum <sup>1</sup>	Maximum <sup>1</sup>
BOD	mg/L	<2	<2	<2
TSS	mg/L	<2	<2	<2
pH	units	7.1	6.8	7.2
Turbidity	NTU	0.6	0.5	0.7
Total Coliform (7d median)	MPN/100mL	<1	<1	<1
EC <sup>2</sup>	µmhos/cm	741	724	754
TDS	mg/L	439	423	449
TOC	mg/L	5.0	4.2	5.6
NH <sub>3</sub> -N	mg/L	<0.1	<0.1	0.1
Bicarbonate Alkalinity	mg/L as CaCO <sub>3</sub>	148	140	157
TIN	mg/L	4.1	2.9	6.1
Boron	mg/L	0.3	0.3	0.3
Calcium	mg/L	44	40	48
Carbonate Alkalinity	mg/L as CaCO <sub>3</sub>	0	0	0
Chloride	mg/L	98	93	107
Fluoride	mg/L	0.2	0.1	0.4
Iron	µg/L	34	22	51
Magnesium	mg/L	10	9	11
NO <sub>3</sub> -N	mg/L	4.1	2.9	6.0
Sodium	mg/L	91	85	98
Sulfate	mg/L	49	42	55
Total Hardness	mg/L as CaCO <sub>3</sub>	151	142	165
Silica	mg/L	23	18	26
Orthophosphate	mg/L	6.1	1.8	9.6

<sup>1</sup> Average, Minimum, and Maximum values based on monthly averages

<sup>2</sup> EC values based on 24-hour composite lab samples, not continuous monitoring

## RP-5 Recycled Water Quality (2020)

Parameter	Units	Average <sup>1</sup>	Minimum <sup>1</sup>	Maximum <sup>1</sup>
BOD	mg/L	<2	<2	2
TSS	mg/L	<2	<2	<2
pH	units	6.9	6.8	7.1
Turbidity	NTU	0.8	0.5	1.0
Total Coliform (7d median)	MPN/100mL	<1	<1	<1
EC <sup>2</sup>	µmhos/cm	927	898	961
TDS	mg/L	533	511	570
TOC	mg/L	5.4	4.6	6.2
NH <sub>3</sub> -N	mg/L	<0.1	<0.1	0.2
Bicarbonate Alkalinity	mg/L as CaCO <sub>3</sub>	130	101	151
TIN	mg/L	5.8	4.2	6.7
Boron	mg/L	0.3	0.3	0.3
Calcium	mg/L	60	52	67
Carbonate Alkalinity	mg/L as CaCO <sub>3</sub>	0	0	0
Chloride	mg/L	164	153	181
Fluoride	mg/L	0.2	0.2	0.3
Magnesium	mg/L	14	13	16
NO <sub>3</sub> -N	mg/L	5.8	4.2	6.7
Sodium	mg/L	104	97	115
Sulfate	mg/L	53	35	90
Total Hardness	mg/L as CaCO <sub>3</sub>	208	184	235
TR Aluminium	µg/L	<25	<25	<25
TR Arsenic	µg/L	<2	<2	3
TR Barium	µg/L	34	18	41
TR Chromium	µg/L	<0.6	<0.5	1.2
TR Copper	µg/L	6	5	7
TR Cadmium	µg/L	<0.25	<0.25	<0.25
TR Lead	µg/L	<0.5	<0.5	0.6
TR Manganese	µg/L	8	1	33
TR Mercury	µg/L	<0.05	<0.05	<0.05
TR Nickel	µg/L	4	3	5
TR Selenium	µg/L	<2	<2	<2
TR Silver	µg/L	<0.25	<0.25	<0.25
TR Zinc	µg/L	52	43	60
Silica	mg/L	20	19	22

<sup>1</sup> Average, Minimum, and Maximum values based on monthly averages

<sup>2</sup> EC values based on 24-hour composite lab samples, not continuous monitoring

## CCWRF Recycled Water Quality (2020)

Parameter	Units	Average <sup>1</sup>	Minimum <sup>1</sup>	Maximum <sup>1</sup>
BOD	mg/L	<2	<2	2
TSS	mg/L	<2	<2	<2
pH	units	6.9	6.8	7.0
Turbidity	NTU	0.6	0.4	0.8
Total Coliform (7d median)	MPN/100mL	<1	<1	<1
EC <sup>2</sup>	µmhos/cm	881	861	922
TDS	mg/L	500	486	514
TOC	mg/L	6.3	5.6	7.1
NH <sub>3</sub> -N	mg/L	<0.1	<0.1	<0.2
Bicarbonate Alkalinity	mg/L as CaCO <sub>3</sub>	120	107	132
TIN	mg/L	5.1	4.5	5.8
Boron	mg/L	0.3	0.2	0.3
Calcium	mg/L	49	46	52
Carbonate Alkalinity	mg/L as CaCO <sub>3</sub>	0	0	0
Chloride	mg/L	145	139	153
Fluoride	mg/L	0.2	0.2	0.4
Magnesium	mg/L	11	10	13
NO <sub>3</sub> -N	mg/L	5.0	4.5	5.8
Sodium	mg/L	108	100	122
Sulfate	mg/L	69	47	111
Total Hardness	mg/L as CaCO <sub>3</sub>	169	157	184
TR Aluminium	µg/L	78	45	112
TR Arsenic	µg/L	<2	<2	2
TR Barium	µg/L	12	10	15
TR Chromium	µg/L	<0.6	<0.5	1.2
TR Copper	µg/L	7	5	8
TR Cadmium	µg/L	<0.25	<0.25	<0.25
TR Lead	µg/L	<0.5	<0.5	<0.5
TR Manganese	µg/L	9	4	20
TR Mercury	µg/L	<0.05	<0.05	<0.05
TR Nickel	µg/L	4	3	4
TR Selenium	µg/L	<2	<2	<2
TR Silver	µg/L	<0.25	<0.25	<0.25
TR Zinc	µg/L	53	40	69
Silica	mg/L	17	13	20

<sup>1</sup> Average, Minimum, and Maximum values based on monthly averages

<sup>2</sup> EC values based on 24-hour composite lab samples, not continuous monitoring

## IEUA Recycled Water Quality (2020) <sup>1</sup>

Parameter	Units	Average <sup>2</sup>	Minimum <sup>2</sup>	Maximum <sup>2</sup>
BOD	mg/L	<2	<2	<2
TSS	mg/L	<2	<2	<2
pH	units	7.0	6.8	7.2
Turbidity	NTU	0.6	0.4	1.0
Total Coliform (7d median)	MPN/100mL	<1	<1	<1
EC <sup>3</sup>	µmhos/cm	822	724	961
TDS	mg/L	504	423	585
TOC	mg/L	5.8	4.2	7.5
NH <sub>3</sub> -N	mg/L	<0.1	<0.1	0.2
Bicarbonate Alkalinity	mg/L as CaCO <sub>3</sub>	139	101	177
TIN	mg/L	4.8	2.9	6.7
Boron	mg/L	0.3	0.2	0.3
Calcium	mg/L	50	40	67
Carbonate Alkalinity	mg/L as CaCO <sub>3</sub>	0	0	0
Chloride	mg/L	129	93	181
Fluoride	mg/L	0.2	0.1	0.5
Magnesium	mg/L	11	8	16
NO <sub>3</sub> -N	mg/L	4.8	2.9	6.7
Sodium	mg/L	100	84	122
Sulfate	mg/L	54	35	111
Total Hardness	mg/L as CaCO <sub>3</sub>	172	142	235
TR Aluminium	µg/L	74	<25	170
TR Arsenic	µg/L	<2	<2	3
TR Barium	µg/L	21	10	41
TR Chromium	µg/L	<0.5	<0.5	0.8
TR Copper	µg/L	6	3	8
TR Cadmium	µg/L	<0.25	<0.25	<0.25
TR Lead	µg/L	<0.5	<0.5	<0.5
TR Manganese	µg/L	10	1	33
TR Mercury	µg/L	<0.05	<0.05	<0.05
TR Nickel	µg/L	4	3	5
TR Selenium	µg/L	<2	<2	<2
TR Silver	µg/L	<0.25	<0.25	<0.25
TR Zinc	µg/L	47	23	69
Silica	mg/L	21	13	26

<sup>1</sup> IEUA RW quality includes RP-1, RP-4, RP-5, and CCWRF. Some RW customers may receive RW from each of these facilities dependent upon regional demands

<sup>2</sup> Average, Minimum, and Maximum values based on monthly averages

<sup>3</sup> EC values based on 24-hour composite lab samples, not continuous monitoring

## RP-1/RP-4 Recycled Water Quality (2020)

Parameter	Units	Average <sup>1</sup>	Minimum <sup>1</sup>	Maximum <sup>1</sup>
BOD	mg/L	<2	<2	<2
TSS	mg/L	<2	<2	<2
pH	units	7.0	6.8	7.2
Turbidity	NTU	0.6	0.5	0.8
Total Coliform (7d median)	MPN/100mL	<1	<1	<1
EC <sup>2</sup>	µmhos/cm	741	724	754
TDS	mg/L	491	423	585
TOC	mg/L	5.7	4.2	7.5
NH <sub>3</sub> -N	mg/L	<0.1	<0.1	<0.1
Bicarbonate Alkalinity	mg/L as CaCO <sub>3</sub>	153	140	177
TIN	mg/L	4.2	2.9	6.1
Boron	mg/L	0.3	0.3	0.2
Calcium	mg/L	46	40	55
Carbonate Alkalinity	mg/L as CaCO <sub>3</sub>	0	0	0
Chloride	mg/L	103	93	118
Fluoride	mg/L	0.2	0.1	0.5
Magnesium	mg/L	10	8	11
NO <sub>3</sub> -N	mg/L	4.2	2.9	6.7
Sodium	mg/L	93	84	110
Sulfate	mg/L	47	37	55
Total Hardness	mg/L as CaCO <sub>3</sub>	155	142	179
TR Aluminium (RP-1 Only)	µg/L	119	71	170
TR Arsenic (RP-1 Only)	µg/L	<2	<2	<2
TR Barium (RP-1 Only)	µg/L	18	13	20
TR Chromium (RP-1 Only)	µg/L	<0.6	<0.5	1.2
TR Copper (RP-1 Only)	µg/L	4	3	6
TR Cadmium (RP-1 Only)	µg/L	<0.25	<0.25	<0.25
TR Lead (RP-1 Only)	µg/L	<0.5	<0.5	<0.5
TR Manganese (RP-1 Only)	µg/L	12	9	17
TR Mercury (RP-1 Only)	µg/L	<0.05	<0.05	<0.05
TR Nickel (RP-1 Only)	µg/L	4	3	5
TR Selenium (RP-1 Only)	µg/L	<2	<2	<2
TR Silver (RP-1 Only)	µg/L	<0.25	<0.25	<0.25
TR Zinc (RP-1 Only)	µg/L	35	23	54
Silica	mg/L	23	18	26
Orthophosphate	mg/L	6.1	1.8	7.8

<sup>1</sup> Average, Minimum, and Maximum values based on monthly averages

<sup>2</sup> EC values based on 24-hour composite lab samples, not continuous monitoring