

## RP-1 Recycled Water Quality (2018)

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	6.9	7.2
Turbidity	NTU	0.6	0.5	0.9
Total Coliform (7d median)	MPN/100mL	<1	<1	<1
EC <sup>2</sup>	µmhos/cm	800	759	836
TDS	mg/L	470	453	482
TOC	mg/L	6.0	5.4	6.6
NH <sub>3</sub> -N	mg/L	<0.1	<0.1	<0.1
Bicarbonate Alkalinity	mg/L as CaCO <sub>3</sub>	141	127	150
TIN	mg/L	4.7	4.1	6.0
Boron	mg/L	0.2	0.2	0.3
Calcium	mg/L	41	36	46
Carbonate Alkalinity	mg/L as CaCO <sub>3</sub>	0	0	0
Chloride	mg/L	112	97	121
Fluoride	mg/L	0.2	0.1	0.2
Magnesium	mg/L	10	8	11
NO <sub>3</sub> -N	mg/L	4.6	4.1	6.0
Sodium	mg/L	95	88	102
Sulfate	mg/L	48	43	52
Total Hardness	mg/L as CaCO <sub>3</sub>	143	134	153
TR Aluminium	µg/L	83	<25	124
TR Arsenic	µg/L	<2	<2	<2
TR Barium	µg/L	14	12	20
TR Chromium	µg/L	<0.5	<0.5	0.8
TR Copper	µg/L	4	<2	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	10	2	24
TR Mercury	µg/L	<0.05	<0.05	<0.05
TR Nickel	µg/L	3	3	4
TR Selenium	µg/L	<2	<2	<2
TR Silver	µg/L	<0.25	<0.25	<0.25
TR Zinc	µg/L	33	23	38
Silica	mg/L	23	19	26
Orthophosphate	mg/L	<0.6	<0.6	2.5

<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 (2018)

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	6.8	6.8	6.9
Turbidity	NTU	0.5	0.4	0.7
Total Coliform (7d median)	MPN/100mL	<1	<1	<1
EC <sup>2</sup>	µmhos/cm	779	717	836
TDS	mg/L	451	419	476
TOC	mg/L	4.3	3.7	4.8
NH <sub>3</sub> -N	mg/L	<0.1	<0.1	<0.1
Bicarbonate Alkalinity	mg/L as CaCO <sub>3</sub>	121	113	129
TIN	mg/L	3.8	3.1	4.5
Boron	mg/L	0.3	0.2	0.3
Calcium	mg/L	36	33	38
Carbonate Alkalinity	mg/L as CaCO <sub>3</sub>	0	0	0
Chloride	mg/L	121	104	132
Fluoride	mg/L	0.2	0.1	0.2
Iron	µg/L	8	0	73
Magnesium	mg/L	10	9	11
NO <sub>3</sub> -N	mg/L	3.8	3.1	4.5
Sodium	mg/L	98	87	107
Sulfate	mg/L	53	45	59
Total Hardness	mg/L as CaCO <sub>3</sub>	131	122	140
Silica	mg/L	18	13	21
Orthophosphate	mg/L	1.7	0.1	3.4

<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 (2018)

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	6.8	6.7	7.1
Turbidity	NTU	0.7	0.5	0.8
Total Coliform (7d median)	MPN/100mL	<1	<1	<1
EC <sup>2</sup>	µmhos/cm	889	847	908
TDS	mg/L	514	482	531
TOC	mg/L	5.0	4.5	5.5
NH <sub>3</sub> -N	mg/L	<0.1	<0.1	<0.1
Bicarbonate Alkalinity	mg/L as CaCO <sub>3</sub>	115	108	127
TIN	mg/L	6.9	5.3	7.6
Boron	mg/L	0.3	0.2	0.3
Calcium	mg/L	51	44	54
Carbonate Alkalinity	mg/L as CaCO <sub>3</sub>	0	0	0
Chloride	mg/L	148	128	158
Fluoride	mg/L	0.1	0.1	0.1
Magnesium	mg/L	12	10	14
NO <sub>3</sub> -N	mg/L	6.9	5.3	7.6
Sodium	mg/L	100	89	107
Sulfate	mg/L	58	38	75
Total Hardness	mg/L as CaCO <sub>3</sub>	176	152	192
TR Aluminium	µg/L	<26	<25	37
TR Arsenic	µg/L	<2	<2	<2
TR Barium	µg/L	23	17	30
TR Chromium	µg/L	<0.5	<0.5	<0.5
TR Copper	µg/L	5	3	7
TR Cadmium	µg/L	<0.25	<0.25	<0.25
TR Lead	µg/L	<0.5	<0.5	<0.5
TR Manganese	µg/L	19	9	28
TR Mercury	µg/L	<0.05	<0.05	<0.05
TR Nickel	µg/L	3	3	3
TR Selenium	µg/L	<2	<2	<2
TR Silver	µg/L	<0.25	<0.25	<0.25
TR Zinc	µg/L	43	36	53
Silica	mg/L	18	17	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

## CCWRF Recycled Water Quality (2018)

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	0.6	0.5	0.7
Total Coliform (7d median)	MPN/100mL	<1	<1	<1
EC <sup>2</sup>	µmhos/cm	883	825	926
TDS	mg/L	505	469	523
TOC	mg/L	6.1	5.5	7.3
NH <sub>3</sub> -N	mg/L	<0.1	<0.1	0.2
Bicarbonate Alkalinity	mg/L as CaCO <sub>3</sub>	111	101	117
TIN	mg/L	5.0	4.8	5.9
Boron	mg/L	0.3	0.2	0.3
Calcium	mg/L	40	36	45
Carbonate Alkalinity	mg/L as CaCO <sub>3</sub>	0	0	0
Chloride	mg/L	144	124	168
Fluoride	mg/L	0.1	0.1	0.2
Magnesium	mg/L	11	9	13
NO <sub>3</sub> -N	mg/L	5.0	4.8	5.7
Sodium	mg/L	110	100	121
Sulfate	mg/L	67	55	86
Total Hardness	mg/L as CaCO <sub>3</sub>	144	133	155
TR Aluminium	µg/L	88	43	153
TR Arsenic	µg/L	<2	<2	<2
TR Barium	µg/L	9	7	12
TR Chromium	µg/L	<0.5	<0.5	<0.5
TR Copper	µg/L	6	4	7
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	2	25
TR Mercury	µg/L	<0.05	<0.05	<0.05
TR Nickel	µg/L	3	3	3
TR Selenium	µg/L	<2	<2	<2
TR Silver	µg/L	<0.25	<0.25	<0.25
TR Zinc	µg/L	51	44	60
Silica	mg/L	15	12	17

<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 (2018) <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	6.9	6.7	7.2
Turbidity	NTU	0.6	0.4	0.9
Total Coliform (7d median)	MPN/100mL	<1	<1	<1
EC <sup>3</sup>	µmhos/cm	838	717	926
TDS	mg/L	485	419	531
TOC	mg/L	5.3	3.7	7.3
NH <sub>3</sub> -N	mg/L	<0.1	<0.1	0.2
Bicarbonate Alkalinity	mg/L as CaCO <sub>3</sub>	122	101	150
TIN	mg/L	5.1	3.1	7.6
Boron	mg/L	0.3	0.2	0.3
Calcium	mg/L	42	33	54
Carbonate Alkalinity	mg/L as CaCO <sub>3</sub>	0	0	0
Chloride	mg/L	132	97	168
Fluoride	mg/L	0.1	0.1	0.2
Magnesium	mg/L	11	8	14
NO <sub>3</sub> -N	mg/L	5.1	3.1	7.6
Sodium	mg/L	101	87	121
Sulfate	mg/L	56	38	86
Total Hardness	mg/L as CaCO <sub>3</sub>	149	122	192
TR Aluminium	µg/L	66	<25	92
TR Arsenic	µg/L	<2	<2	<2
TR Barium	µg/L	15	7	30
TR Chromium	µg/L	<0.5	<0.5	0.8
TR Copper	µg/L	5	3	7
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	2	28
TR Mercury	µg/L	<0.05	<0.05	<0.05
TR Nickel	µg/L	3	3	4
TR Selenium	µg/L	<2	<2	<2
TR Silver	µg/L	<0.25	<0.25	<0.25
TR Zinc	µg/L	42	23	60
Silica	mg/L	18	12	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 (2018)

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	7.2
Turbidity	NTU	0.6	0.4	0.9
Total Coliform (7d median)	MPN/100mL	<1	<1	<1
EC <sup>2</sup>	µmhos/cm	789	717	836
TDS	mg/L	461	419	482
TOC	mg/L	5.1	3.7	6.6
NH <sub>3</sub> -N	mg/L	<0.1	<0.1	<0.1
Bicarbonate Alkalinity	mg/L as CaCO <sub>3</sub>	131	113	150
TIN	mg/L	4.2	3.1	6.0
Boron	mg/L	0.3	0.2	0.2
Calcium	mg/L	38	33	46
Carbonate Alkalinity	mg/L as CaCO <sub>3</sub>	0	0	0
Chloride	mg/L	117	97	132
Fluoride	mg/L	0.2	0.1	0.2
Magnesium	mg/L	10	8	11
NO <sub>3</sub> -N	mg/L	4.2	3.1	7.6
Sodium	mg/L	97	87	107
Sulfate	mg/L	50	43	59
Total Hardness	mg/L as CaCO <sub>3</sub>	137	122	153
TR Aluminium (RP-1 Only)	µg/L	83	<25	124
TR Arsenic (RP-1 Only)	µg/L	<2	<2	<2
TR Barium (RP-1 Only)	µg/L	14	12	20
TR Chromium (RP-1 Only)	µg/L	<0.5	<0.5	0.8
TR Copper (RP-1 Only)	µg/L	4	<2	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	10	2	24
TR Mercury (RP-1 Only)	µg/L	<0.05	<0.05	<0.05
TR Nickel (RP-1 Only)	µg/L	3	3	4
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	33	23	38
Silica	mg/L	20	13	26
Orthophosphate	mg/L	1.2	<0.6	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