

Appendix D8.2_Cumulative Data of Water Quality Monitoring (Western Tributary)

Other Public Works Study Area - Monitoring Location: PW4

Parameter	Unit	May 2023	Jul 2023	Sep 2023	Nov 2023	Jan 2024	Mar 2024
Sampling Time	-	10:30	10:20	09:10	13:30	14:25	09:20
Weather	-	Sunny	Sunny	Sunny	Overcast	Sunny	Sunny
Sampling Depth	cm	20	20	25	50	40	40
Sample: PW4-A							
pH		8.21	7.32	7.34	6.87	6.6	7.13
Salinity	ppt	0.02	0.01	0.01	0.01	0.02	0.02
Temperature	°C	24.53	27.2	24.96	21.9	19.97	17.01
Turbidity	NTU	1.19	1.15	1.32	3.15	3.33	3.02
DO mg/L	mg/L	9.37	8.77	8.59	8.45	8.47	8.8
DO %	%	112.5	110.5	103.9	96.4	93.1	91.0
Suspended Solids	mg/L	1.9	2.2	0.7	<0.5	0.6	<0.5
Ammonia as N	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Kjeldahl Nitrogen as N	mg/L	0.09	0.07	<0.05	0.06	<0.05	0.07
Total Phosphorus as P	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Escherichia coli	CFU/100mL	73	49	30	11	2	12
Biochemical Oxygen Demand	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chemical Oxygen Demand	mg/L	<2	3	3	3	3	4
Oil & Grease	mg/L	<2	<2	<2	<2	<2	<2
Sample: PW4-B							
pH		8.17	7.23	7.24	6.86	6.54	7.13
Salinity	ppt	0.02	0.01	0.01	0.01	0.02	0.02
Temperature	°C	24.53	27.19	24.96	21.92	20.04	16.97
Turbidity	NTU	1.23	1.09	1.33	2.68	3.7	3.09
DO mg/L	mg/L	9.26	8.56	8.1	7.54	7.97	9.24
DO %	%	111.1	107.8	98	86.1	87.7	95.6
Suspended Solids	mg/L	1.7	2.5	0.6	<0.5	0.6	<0.5
Ammonia as N	mg/L	<0.01	<0.01	<0.01	<0.01	0.02	<0.01
Total Kjeldahl Nitrogen as N	mg/L	0.10	0.06	<0.05	<0.05	<0.05	0.05
Total Phosphorus as P	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Escherichia coli	CFU/100mL	82	54	34	13	7	15
Biochemical Oxygen Demand	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chemical Oxygen Demand	mg/L	<2	4	4	4	2	5
Oil & Grease	mg/L	<2	<2	<2	<2	<2	<2
Summary		WQO*	Median^	Minimum	Maximum		
pH	-	6.0 - 9.0	7.18	6.54	8.21		
Salinity	ppt	-	0.02	0.01	0.02		
Temperature	°C	-	23.23	16.97	27.2		
Turbidity	NTU	-	2.01	1.09	3.70		
DO mg/L	mg/L	min. 4	8.58	7.54	9.37		
DO %	%	-	97.2	86.1	112.5		
Suspended Solids	mg/L	max. 25	1.2	0.6	2.5		
Ammonia as N	mg/L	-	0.02	0.02	0.02		
Total Kjeldahl Nitrogen as N	mg/L	-	0.06	<0.05	0.10		
Total Phosphorus as P	mg/L	-	<0.01	<0.01	<0.01		
Escherichia coli	CFU/100mL	-	20.59	2	82		
Biochemical Oxygen Demand	mg/L	max. 5	<1.0	<1.0	<1.0		
Chemical Oxygen Demand	mg/L	max. 30	3	<2	5		
Oil & Grease	mg/L	-	<2	<2	<2		

Notes:

^Summary data presented are in annual medians of monthly samples; except those for E. coli which are in annual geometric means (following EPD's Annual River Water Quality Report).

*The WQO compliance for suspended solids is based on annual median value, while WQO compliance for other parameters is based on individual measurements.

Appendix D8.2_Cumulative Data of Water Quality Monitoring (Western Tributary)

Other Public Works Study Area - Monitoring Location: PWS

Parameter	Unit	May 2023	Jul 2023	Sep 2023	Nov 2023	Jan 2024	Mar 2024
Sampling Time	-	12:05	11:35	11:45	11:00	11:00	11:35
Weather	-	Sunny	Sunny	Sunny	Overcast	Sunny	Sunny
Sampling Depth	cm	10	10	20	35	35	30
Sample: PW5-A							
pH		6.48	7.16	6.93	6.78	6.8	6.96
Salinity	ppt	0.02	0.02	0.01	0.01	0.02	0.02
Temperature	°C	25.16	27.77	26.29	21.72	18.46	18.36
Turbidity	NTU	1.4	1.23	1.96	1.44	2.38	2.1
DO mg/L	mg/L	8.13	7.46	8.1	8.19	9.22	9.64
DO %	%	98.7	94.9	100.3	93.2	98.3	102.6
Suspended Solids	mg/L	0.6	0.6	0.6	1.3	<0.5	2.4
Ammonia as N	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Kjeldahl Nitrogen as N	mg/L	0.08	0.08	0.05	0.07	<0.05	0.06
Total Phosphorus as P	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Escherichia coli	CFU/100mL	91	29	46	10	16	15
Biochemical Oxygen Demand	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chemical Oxygen Demand	mg/L	<2	4	3	4	<2	4
Oil & Grease	mg/L	<2	<2	<2	<2	<2	<2
Sample: PW5-B							
pH		6.49	7.09	6.62	6.76	6.74	6.89
Salinity	ppt	0.02	0.02	0.01	0.01	0.02	0.02
Temperature	°C	25.19	27.77	26.26	21.73	18.46	18.38
Turbidity	NTU	1.44	1.11	1.94	1.45	2.84	2.24
DO mg/L	mg/L	7.83	7.33	7.66	8.39	9.18	9
DO %	%	95.2	93.3	94.9	95.5	97.8	95.8
Suspended Solids	mg/L	0.6	0.6	0.7	<0.5	<0.5	<0.5
Ammonia as N	mg/L	<0.01	<0.01	<0.01	0.01	<0.01	<0.01
Total Kjeldahl Nitrogen as N	mg/L	0.08	0.09	<0.05	<0.05	<0.05	0.07
Total Phosphorus as P	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Escherichia coli	CFU/100mL	89	33	51	9	16	17
Biochemical Oxygen Demand	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chemical Oxygen Demand	mg/L	2	4	3	3	<2	6
Oil & Grease	mg/L	<2	<2	<2	<2	<2	<2
Summary		WQO*	Median^	Minimum	Maximum		
pH	-	6.0 - 9.0	6.79	6.48	7.16		
Salinity	ppt	-	0.02	0.01	0.02		
Temperature	°C	-	23.45	18.36	27.77		
Turbidity	NTU	-	1.70	1.11	2.84		
DO mg/L	mg/L	min. 4	8.16	7.33	9.64		
DO %	%	-	95.65	93.2	102.6		
Suspended Solids	mg/L	max. 25	0.6	<0.5	2.4		
Ammonia as N	mg/L	-	0.01	<0.01	0.01		
Total Kjeldahl Nitrogen as N	mg/L	-	0.07	<0.05	0.09		
Total Phosphorus as P	mg/L	-	<0.01	<0.01	<0.01		
Escherichia coli	CFU/100mL	-	26.25	9	91		
Biochemical Oxygen Demand	mg/L	max. 5	<1.0	<1.0	<1.0		
Chemical Oxygen Demand	mg/L	max. 30	3	2	6		
Oil & Grease	mg/L	-	<2	<2	<2		

Notes:

^Summary data presented are in annual medians of monthly samples; except those for E. coli which are in annual geometric means (following EPD's Annual River Water Quality Report).

*The WQO compliance for suspended solids is based on annual median value, while WQO compliance for other parameters is based on individual measurements.

Appendix D8.2_Cumulative Data of Water Quality Monitoring (Western Tributary)

Other Public Works Study Area - Monitoring Location: PW6

Parameter	Unit	May 2023	Jul 2023	Sep 2023	Nov 2023	Jan 2024	Mar 2024
Sampling Time	-	14:45	15:10	13:50	10:15	10:20	14:10
Weather	-	Sunny	Sunny	Overcast	Overcast	Sunny	Sunny
Sampling Depth	cm	30	20	20	35	45	50
Sample: PW6-A							
pH		8.24	8.34	6.51	6.92	7.48	6.39
Salinity	ppt	0.03	0.03	0.02	0.03	0.03	0.04
Temperature	°C	26.01	28.82	26.93	22.05	19.00	20.52
Turbidity	NTU	1.42	1.25	2.08	3.34	1.02	1.42
DO mg/L	mg/L	9.66	7.45	7.75	9.31	7.57	6.09
DO %	%	119.1	96.5	97.2	106.6	81.6	67.7
Suspended Solids	mg/L	0.8	0.9	0.8	0.6	0.7	0.6
Ammonia as N	mg/L	<0.01	<0.01	<0.01	0.02	0.01	<0.01
Total Kjeldahl Nitrogen as N	mg/L	0.10	0.08	<0.05	0.06	<0.05	0.06
Total Phosphorus as P	mg/L	<0.01	0.01	<0.01	0.01	<0.01	<0.01
Escherichia coli	CFU/100mL	82	47	300	320	9	10
Biochemical Oxygen Demand	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chemical Oxygen Demand	mg/L	<2	5	5	3	<2	3
Oil & Grease	mg/L	<2	<2	<2	<2	<2	<2
Sample: PW6-B							
pH		7.8	8.2	6.33	6.99	7.08	6.26
Salinity	ppt	0.03	0.03	0.02	0.03	0.03	0.04
Temperature	°C	25.9	28.78	26.8	22.05	18.99	20.34
Turbidity	NTU	1.16	1.38	2.18	3.09	1.07	1.45
DO mg/L	mg/L	8.83	7.24	7.18	9.36	7.64	7.03
DO %	%	108.7	93.8	89.8	107.2	82.3	77.9
Suspended Solids	mg/L	0.8	0.9	0.9	0.7	0.9	0.7
Ammonia as N	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Kjeldahl Nitrogen as N	mg/L	0.11	0.07	<0.05	0.06	<0.05	<0.05
Total Phosphorus as P	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Escherichia coli	CFU/100mL	73	50	280	540	11	19
Biochemical Oxygen Demand	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chemical Oxygen Demand	mg/L	<2	5	5	4	<2	4
Oil & Grease	mg/L	<2	<2	<2	<2	<2	<2
Summary		WQO*	Median^	Minimum	Maximum		
pH	-	6.0 - 9.0	7.04	6.26	8.34		
Salinity	ppt	-	0.03	0.02	0.04		
Temperature	°C	-	23.98	18.99	28.82		
Turbidity	NTU	-	1.42	1.02	3.34		
DO mg/L	mg/L	min. 4	7.61	6.09	9.66		
DO %	%	-	95.15	67.7	119.1		
Suspended Solids	mg/L	max. 25	0.8	0.6	0.9		
Ammonia as N	mg/L	-	0.01	<0.01	0.02		
Total Kjeldahl Nitrogen as N	mg/L	-	0.06	<0.05	0.11		
Total Phosphorus as P	mg/L	-	0.01	<0.01	0.01		
Escherichia coli	CFU/100mL	-	62.91	9	540		
Biochemical Oxygen Demand	mg/L	max. 5	<1.0	<1.0	<1.0		
Chemical Oxygen Demand	mg/L	max. 30	3.5	2	5		
Oil & Grease	mg/L	-	<2	<2	<2		

Notes:

^Summary data of the presented are in annual medians of monthly samples; except those for E. coli which are in annual geometric means (following EPD's Annual River Water Quality Report).

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