

Eastern Irrigation Scheme

Point D Compliance Monitoring Summary, January 2014 - March 2014

Parameter	Frequency	MEDIAN Limit	Units	Median	Maximum	Average	Minimum
Free Chlorine	Daily	1 - 5*	mg/L	1.9	1.9	1.5	0.8
Turbidity	Daily	<2	NTU	0.02	0.02	0.02	0.02
BOD	Weekly	<10	mg/L	1.8	2.0	1.6	1.0
E.coli	Weekly	<10	org/100mL	0	0	0	0
SS	Weekly	<5	mg/L	1.5	1.6	1.5	1.5
pH	Weekly	6 - 9	pH units	6.6	6.7	6.6	6.5
Ammonia	Monthly	no limit	mg/L	0.0	0.0	0.0	0.0
Nitrate	Monthly	no limit	mg/L	16.0	20.8	14.6	6.9
EC	Monthly	no limit	µs/cm	860	922	877	849
Potassium	Monthly	no limit	mg/l	17	18	17	16
TDS	Monthly	no limit	mg/L	490	506	495	490
Total Nitrogen	Monthly	no limit	mg/L	16	17	16	14
Total Phosphorus	Monthly	no limit	mg/L	6.2	9.0	6.9	5.6
Sulphur	Monthly	no limit	mg/L	56	58	56	55
Viruses	Monthly	<1**	FRNA	<1	<1	<1	<1

* chlorine residual limit calculated as a function of daily production and minimum feedwater temperature

** Indicator of viruses, organisms per mL (or per 100mL) with <10 equivalent to zero due to inaccuracies

Eastern Irrigation Scheme

Recycled Water Quality Objectives/Specifications, April 2014 - June 2014*

Parameter	MEDIAN Limit	Units	Median	Maximum	Average	Minimum
Microbiological indicators						
E.Coli***	<10	orgs/100mL	<1	<1	<1	<1
Physiochemical indicators						
BOD ₅	<10	mg/L	2.0	2.0	2.0	2.0
pH (90% percentile)	6 - 9	pH units	6.8	6.9	6.7	6.5
SS	<5	mg/l	1.0	2.0	1.1	1.0
Aesthetic indicators						
Colour	<70	Pt/Co	8.0	14.0	8.8	4.0
Nutrient indicators						
Ammonia	<20	mg/L	0.1	0.7	0.1	0.0
Nitrate	<50	mgN/L	21	21	21	21
Total Kjeldahl Nitrogen	<25	mg/L	2.2	4.3	2.2	1.0
Total N		mg/L	23	23	23	23
Total P	<18	mg/L	8.0	8.0	8.0	8.0
Salinity indicators						
Calcium	<88	mg/L	21	21	21	21
Potassium	<64	mg/L	no results this quarter			
EC	<1500	uS/cm	870	938	854	734
TDS	<1200	mg/L	540	540	540	540
Others						
Turbidity	2	NTU	0.3	0.4	0.3	0.2
Oil & Grease		mg/L	5.0	5.0	5.0	5.0
CBOD ₅		mg/L	2.0	2.0	2.0	2.0
COD		mg/L	22.5	35.0	22.5	10.0
Free Chlorine**	0-5	mg/L	0.5	1.8	0.6	0.2
Temp		°C	20.1	24.1	20.2	16.9
Alkalinity		mgCaCO ₃ /l	no results this quarter			

* Class A Monitoring Sampling Results provided by Melbourne Water

**Monitoring by Eastern Irrigation Scheme

*** Indicator of viruses, organisms per mL (or per 100mL) with <10 equivalent to zero due to method inaccuracies

Eastern Irrigation Scheme

Class A Monitoring Summary, July 2014 -September 2014*

Parameter	MEDIAN Limit	Units	Median	Maximum	Average	Minimum
Free Chlorine		mg/L	0.4	1.9	0.6	0.1
Alkalinity	<2	mgCaCO3/l	62.00	68.00	62.00	56.00
BOD5	<10	mg/L	2.0	5.0	2.6	2.0
Calcium	<10	mg/L	20	21	19	16
CBOD5	<5	mg/L	2.0	2.0	2.0	2.0
COD		mg/L	25.0	44.0	25.5	18.0
Ammonia	<i>no limit</i>	mg/L	0.1	0.3	0.1	0.0
Oil & Grease	<i>no limit</i>	mg/L	5.0	28.0	8.6	5.0
pH	6 - 9	pH units	6.8	6.9	6.8	6.5
SS	<i>no limit</i>	mg/l	1.0	3.0	1.1	1.0
TDS	<i>no limit</i>	mg/L	495	540	498	460
TKN	<i>no limit</i>	mg/L	2.0	5.7	2.3	0.7
Total P	<i>no limit</i>	mg/L	6.4	6.6	6.3	5.9
Total N	<i>no limit</i>	mg/L	15	16	15	13
True Colour	<1*	Pt/Co	10.0	14.0	9.4	6.0
Turbidity		NTU	0.5	1.1	0.3	0.5
E.Coli		orgs/100mL	0	1	0	0.1
Potassium		mg/L	27.50	30	25	27.5
Nitrate		mgN/L	13.5	15	11	13.3
EC		uS/cm	885	979	874	92
Temp		°C	17.5	19.3	17.8	16.2

* Indicator of viruses, organisms per mL (or per 100mL) with <10 equivalent to zero due to inaccuracies

Eastern Irrigation Scheme

Class A Monitoring Summary, October 2014 -December 2014*

Parameter	MEDIAN Limit	Units	Median	Maximum	Average	Minimum
Free Chlorine**		mg/L	0.4	1.2	0.5	0.1
Alkalinity		mgCaCO3/l	71	84	73	65
BOD5		mg/L	2	3	2	2
Calcium		mg/L	21	28	21	17
CBOD5	<10	mg/L	2	3	2	2
COD		mg/L	25	35	24	12
Ammonia		mg/L	0.08	0.24	0.00	0.03
Oil & Grease		mg/L	5	20	6	5
pH	6 - 9	pH units	6.7	7.0	7.0	6.6
SS	<5	mg/l	1	1	1	1
TDS		mg/L	530	580	521	460
TKN		mg/L	2.6	5.7	3.0	1.1
Total P		mg/L	5.2	7.8	4.0	0.4
Total N		mg/L	13	19	13	7.8
True Colour		Pt/Co	8	14	8	4
Turbidity		NTU	0.55	1.1	1	0.3
E.Coli	<10***	orgs/100mL	0	0	0	0
Potassium		mg/L	28	33	30	28
Nitrate		mgN/L	10	16	11	6.9
EC	<1200	uS/cm	908	1118	904	686
Temp		°C	21.5	23.7	21.1	17.1

* Results supplied from Melbourne Water's Class A Tertiary Treatment Plant

** Results from Eastern Irrigation Scheme site

*** Indicator of viruses, organisms per mL (or per 100mL) with <10 equivalent to zero due to inaccuracies