

Richmond Wastewater Treatment Plant

June Pollution Monitoring Summary



EPL 1726

Summary period: 01-06-2014 to 30-06-2014

Date obtained: 07-07-2014

Date published: 18-07-2014

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: Routine monitoring data

EPA Point 16 Site code RM0016		Point description: Outlet of dechlorination tank				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
carbonaceous biochemical oxygen demand	mg/L	every 6 days	4	<2	3	9
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly during discharge	1	-	-	100
chlorine (total residual)	mg/L	every 6 days during discharge	4	<0.04	<0.04	<0.04
faecal coliforms	CFU/100mL	every 6 days	4	15	29	39
nitrogen (ammonia)	mg/L	every 6 days	4	<0.01	<0.01	0.1
nitrogen (total)	mg/L	every 6 days	4	6.64	7.4	8.02
phosphorus (total)	mg/L	every 6 days	4	0.02	0.02	0.02
total suspended solids	mg/L	every 6 days	4	<2	<2	2

EPA Point 17 Site code RM0017		Point description: Inlet to recycled water pump station				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
chlorine (total residual)	mg/L	every 6 days	5	0.71	1.39	1.66
faecal coliforms	CFU/100mL	every 6 days	5	<1	<1	1
nitrogen (ammonia)	mg/L	every 6 days	5	<0.01	<0.01	0.01
nitrogen (total)	mg/L	every 6 days	5	6.23	7.21	7.99
phosphorus (total)	mg/L	every 6 days	5	0.02	0.02	0.03
total suspended solids	mg/L	every 6 days	5	<2	<2	2

Average and percentile limits are only applied annually for routine monitoring data in Table 2

Richmond Wastewater Treatment Plant

May Pollution Monitoring Summary



EPL 1726

Summary period: 01-05-2014 to 31-05-2014

Date obtained: 06-06-2014

Date published: 18-06-2014

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: Routine monitoring data

EPA Point 16 Site code RM0016		Point description: Outlet of dechlorination tank				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
carbonaceous biochemical oxygen demand	mg/L	every 6 days	3	<2	<2	<2
chlorine (total residual)	mg/L	every 6 days during discharge	3	<0.04	<0.04	<0.04
faecal coliforms	CFU/100mL	every 6 days	3	4	35	90
nitrogen (ammonia)	mg/L	every 6 days	3	<0.01	<0.01	0.1
nitrogen (total)	mg/L	every 6 days	3	6.46	7.11	7.44
phosphorus (total)	mg/L	every 6 days	3	0.02	0.02	0.02
total suspended solids	mg/L	every 6 days	3	<2	<2	4

EPA Point 17 Site code RM0017		Point description: Inlet to recycled water pump station				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
carbonaceous biochemical oxygen demand	mg/L	every 6 days	6	<2	<2	2
chlorine (total residual)	mg/L	every 6 days	5	1.39	1.68	2.6
faecal coliforms	CFU/100mL	every 6 days	5	<1	<1	<1
nitrogen (ammonia)	mg/L	every 6 days	6	<0.01	0.08	0.24
nitrogen (total)	mg/L	every 6 days	6	5.67	6.41	7.03
phosphorus (total)	mg/L	every 6 days	6	0.02	0.02	0.03
total suspended solids	mg/L	every 6 days	6	<2	<2	2

Average and percentile limits are only applied annually for routine monitoring data in Table 2

Richmond Wastewater Treatment Plant

April Pollution Monitoring Summary



EPL 1726

Summary period: 01-04-2014 to 30-04-2014

Date obtained: 02-05-2014

Date published: 18-07-2014

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: Routine monitoring data

EPA Point 16 Site code RM0016		Point description: Outlet of dechlorination tank				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	3
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly during discharge	1	-	-	100
chlorine (total residual)	mg/L	every 6 days during discharge	5	<0.04	<0.04	<0.04
faecal coliforms	CFU/100mL	every 6 days	5	<1	5	13
nitrogen (ammonia)	mg/L	every 6 days	5	0.01	0.01	0.02
nitrogen (total)	mg/L	every 6 days	5	5.95	6.36	7.1
phosphorus (total)	mg/L	every 6 days	5	0.02	0.02	0.03
total suspended solids	mg/L	every 6 days	5	<2	<2	4

EPA Point 17 Site code RM0017		Point description: Inlet to recycled water pump station				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
chlorine (total residual)	mg/L	every 6 days	5	1.16	1.35	1.56
faecal coliforms	CFU/100mL	every 6 days	5	<1	<1	<1
nitrogen (ammonia)	mg/L	every 6 days	5	<0.01	<0.01	0.01
nitrogen (total)	mg/L	every 6 days	5	5.56	5.92	6.45
phosphorus (total)	mg/L	every 6 days	5	0.02	0.02	0.02
total suspended solids	mg/L	every 6 days	5	<2	<2	5

Average and percentile limits are only applied annually for routine monitoring data in Table 2

Richmond Wastewater Treatment Plant

March Pollution Monitoring Summary



EPL 1726

Summary period: 01-03-2014 to 31-03-2014

Date obtained: 04-04-2014

Date published: 11-04-2014

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: Routine monitoring data

EPA Point 16 Site code RM0016		Point description: Outlet of dechlorination tank				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
carbonaceous biochemical oxygen demand	mg/L	every 6 days	4	<2	<2	<2
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly during discharge	1	-	-	100
chlorine (total residual)	mg/L	every 6 days during discharge	4	<0.04	<0.04	0.04
faecal coliforms	CFU/100mL	every 6 days	4	<1	7	22
nitrogen (ammonia)	mg/L	every 6 days	4	<0.01	0.02	0.02
nitrogen (total)	mg/L	every 6 days	4	5.71	6.58	7.54
phosphorus (total)	mg/L	every 6 days	4	0.02	0.02	0.03
total suspended solids	mg/L	every 6 days	4	<2	<2	<2

EPA Point 17 Site code RM0017		Point description: Inlet to recycled water pump station				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
chlorine (total residual)	mg/L	every 6 days	5	1.17	1.3	1.56
faecal coliforms	CFU/100mL	every 6 days	5	<1	<1	<1
nitrogen (ammonia)	mg/L	every 6 days	5	<0.01	<0.01	0.03
nitrogen (total)	mg/L	every 6 days	5	6	6.61	7.38
phosphorus (total)	mg/L	every 6 days	5	0.02	0.03	0.03
total suspended solids	mg/L	every 6 days	5	<2	<2	<2

Average and percentile limits are only applied annually for routine monitoring data in Table 2

Richmond Wastewater Treatment Plant

February Pollution Monitoring Summary



EPL 1726

Summary period: 01-02-2014 to 28-02-2014

Date obtained: 19-03-2014

Date published: 18-07-2014

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: Routine monitoring data

EPA Point 16 Site code RM0016		Point description: Outlet of dechlorination tank				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
carbonaceous biochemical oxygen demand	mg/L	every 6 days	1	-	-	<2
chlorine (total residual)	mg/L	every 6 days during discharge	1	-	-	<0.04
faecal coliforms	CFU/100mL	every 6 days	1	-	-	6
nitrogen (ammonia)	mg/L	every 6 days	1	-	-	0.01
nitrogen (total)	mg/L	every 6 days	1	-	-	5.6
phosphorus (total)	mg/L	every 6 days	1	-	-	0.03
total suspended solids	mg/L	every 6 days	1	-	-	<2

EPA Point 17 Site code RM0017		Point description: Inlet to recycled water pump station				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
carbonaceous biochemical oxygen demand	mg/L	every 6 days	4	<2	<2	<2
chlorine (total residual)	mg/L	every 6 days	5	1.14	1.34	1.54
faecal coliforms	CFU/100mL	every 6 days	5	<1	<1	3
nitrogen (ammonia)	mg/L	every 6 days	4	<0.01	<0.01	0.01
nitrogen (total)	mg/L	every 6 days	4	5.8	6.1	6.75
phosphorus (total)	mg/L	every 6 days	4	0.02	0.02	0.03
total suspended solids	mg/L	every 6 days	4	<2	<2	<2

Average and percentile limits are only applied annually for routine monitoring data in Table 2

Richmond Wastewater Treatment Plant

January Pollution Monitoring Summary



EPL 1726

Summary period: 01-01-2014 to 31-01-2014

Date obtained: 06-02-2014

Date published: 18-07-2014

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: Routine monitoring data

EPA Point 17 Site code RM0017	Point description: Inlet to recycled water pump station					
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
carbonaceous biochemical oxygen demand	mg/L	every 6 days	6	<2	<2	<2
chlorine (total residual)	mg/L	every 6 days	5	1.09	1.25	1.38
faecal coliforms	CFU/100mL	every 6 days	5	<1	<1	1
nitrogen (ammonia)	mg/L	every 6 days	6	0.01	0.01	0.01
nitrogen (total)	mg/L	every 6 days	6	5.05	5.78	6.35
phosphorus (total)	mg/L	every 6 days	6	0.02	0.03	0.04
total suspended solids	mg/L	every 6 days	6	<2	<2	4

Average and percentile limits are only applied annually for routine monitoring data in Table 2

Richmond Wastewater Treatment Plant

December Pollution Monitoring Summary



EPL 1726

Summary period: 01-12-2013 to 31-12-2013

Date obtained: 02-01-2014

Date published: 18-07-2014

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: Routine monitoring data

EPA Point 17 Site code RM0017	Point description: Inlet to recycled water pump station					
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
chlorine (total residual)	mg/L	every 6 days	5	1.32	1.46	1.68
faecal coliforms	CFU/100mL	every 6 days	5	<1	<1	1
nitrogen (ammonia)	mg/L	every 6 days	5	<0.01	<0.01	0.01
nitrogen (total)	mg/L	every 6 days	5	6.4	8.14	12.2
phosphorus (total)	mg/L	every 6 days	5	0.02	0.02	0.03
total suspended solids	mg/L	every 6 days	5	<2	<2	2

Average and percentile limits are only applied annually for routine monitoring data in Table 2

Richmond Wastewater Treatment Plant

November Pollution Monitoring Summary



EPL 1726

Summary period: 01-11-2013 to 30-11-2013

Date obtained: 02-12-2013

Date published: 10-12-2013

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: Routine monitoring data

EPA Point 16 Site code RM0016		Point description: Outlet of dechlorination tank				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
carbonaceous biochemical oxygen demand	mg/L	every 6 days	1	-	-	<2
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly during discharge	1	-	-	100
chlorine (total residual)	mg/L	every 6 days during discharge	1	-	-	<0.04
faecal coliforms	CFU/100mL	every 6 days	1	-	-	26
nitrogen (ammonia)	mg/L	every 6 days	1	-	-	<0.01
nitrogen (total)	mg/L	every 6 days	1	-	-	6.6
phosphorus (total)	mg/L	every 6 days	1	-	-	0.03
total suspended solids	mg/L	every 6 days	1	-	-	<2

EPA Point 17 Site code RM0017		Point description: Inlet to recycled water pump station				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	2
chlorine (total residual)	mg/L	every 6 days	5	1.4	2.44	4.9
faecal coliforms	CFU/100mL	every 6 days	5	<1	<1	<1
nitrogen (ammonia)	mg/L	every 6 days	5	0.01	0.11	0.49
nitrogen (total)	mg/L	every 6 days	5	6.05	7.6	9.8
phosphorus (total)	mg/L	every 6 days	5	0.02	0.03	0.03
total suspended solids	mg/L	every 6 days	5	<2	<2	2

Average and percentile limits are only applied annually for routine monitoring data in Table 1.

Richmond Wastewater Treatment Plant

October Pollution Monitoring Summary



EPL 1726

Summary period: 01-10-2013 to 31-10-2013

Date obtained: 04-11-2013

Date published: 15-11-2013

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: Routine monitoring data

EPA Point 17 Site code RM0017	Point description: Inlet to recycled water pump station					
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
chlorine (total residual)	mg/L	every 6 days	5	1.46	1.68	2.2
faecal coliforms	CFU/100mL	every 6 days	5	<1	<1	<1
nitrogen (ammonia)	mg/L	every 6 days	5	<0.01	<0.01	0.01
nitrogen (total)	mg/L	every 6 days	5	5.35	6.51	6.95
phosphorus (total)	mg/L	every 6 days	5	0.02	0.02	0.02
total suspended solids	mg/L	every 6 days	5	<2	<2	<2

Average and percentile limits are only applied annually for routine monitoring data in Table 1.

During October 2013 the plant did not discharge to the environment as water did not flow over the weir at EPA sampling point 16. As such data were not available for EPA sample point 16

Richmond Wastewater Treatment Plant

September Pollution Monitoring Summary



EPL 1726

Summary period: 01-09-2013 to 30-09-2013

Date obtained: 03-10-2013

Date published: 15-10-2013

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: Routine monitoring data

EPA Point 16 Site code RM0016		Point description: Outlet of dechlorination tank				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
carbonaceous biochemical oxygen demand	mg/L	every 6 days	3	<2	<2	<2
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly during discharge	1	-	-	100
chlorine (total residual)	mg/L	every 6 days during discharge	4	<0.04	<0.04	<0.04
faecal coliforms	CFU/100mL	every 6 days	4	<1	<1	2
nitrogen (ammonia)	mg/L	every 6 days	4	<0.01	<0.01	0.01
nitrogen (total)	mg/L	every 6 days	4	5.65	5.93	6.2
phosphorus (total)	mg/L	every 6 days	4	0.02	0.02	0.03
total suspended solids	mg/L	every 6 days	4	<2	<2	<2

EPA Point 17 Site code RM0017		Point description: Inlet to recycled water pump station				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
chlorine (total residual)	mg/L	every 6 days	5	1.51	1.81	2
faecal coliforms	CFU/100mL	every 6 days	5	<1	<1	<1
nitrogen (ammonia)	mg/L	every 6 days	5	<0.01	0.08	0.35
nitrogen (total)	mg/L	every 6 days	5	5.35	5.72	6.05
phosphorus (total)	mg/L	every 6 days	5	0.02	0.02	0.02
total suspended solids	mg/L	every 6 days	5	<2	<2	<2

Average and percentile limits are only applied annually for routine monitoring data in Table 1.

Richmond Wastewater Treatment Plant

August Pollution Monitoring Summary



EPL 1726

Summary period: 01-08-2013 to 31-08-2013

Date obtained: 03-09-2013

Date published: 12-09-2013

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: Routine monitoring data

EPA Point 16 Site code RM0016		Point description: Outlet of dechlorination tank				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
carbonaceous biochemical oxygen demand	mg/L	every 6 days	4	<2	<2	<2
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly during discharge	1	-	-	100
chlorine (total residual)	mg/L	every 6 days during discharge	4	<0.04	<0.04	<0.04
faecal coliforms	CFU/100mL	every 6 days	4	<1	1	2
nitrogen (ammonia)	mg/L	every 6 days	4	<0.01	<0.01	0.02
nitrogen (total)	mg/L	every 6 days	4	6.4	6.79	7
phosphorus (total)	mg/L	every 6 days	4	0.02	0.02	0.02
total suspended solids	mg/L	every 6 days	4	<2	<2	<2

EPA Point 17 Site code RM0017		Point description: Inlet to recycled water pump station				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
chlorine (total residual)	mg/L	every 6 days	5	1.76	1.91	2.09
faecal coliforms	CFU/100mL	every 6 days	5	<1	<1	1
nitrogen (ammonia)	mg/L	every 6 days	5	<0.01	<0.01	0.01
nitrogen (total)	mg/L	every 6 days	5	6.1	6.52	7.3
phosphorus (total)	mg/L	every 6 days	5	0.02	0.02	0.02
total suspended solids	mg/L	every 6 days	5	<2	<2	<2

Average and percentile limits are only applied annually for routine monitoring data in Table 1.

Richmond Wastewater Treatment Plant

July Pollution Monitoring Summary



EPL 1726

Summary period: 01-07-2013 to 31-07-2013

Date obtained: 08-08-2013

Date published: 14-08-2013

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: Routine monitoring data

EPA Point 16 Site code RM0016		Point description: Outlet of dechlorination tank				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
carbonaceous biochemical oxygen demand	mg/L	every 6 days	4	<2	<2	<2
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly during discharge	1	-	-	100
chlorine (total residual)	mg/L	every 6 days during discharge	4	<0.04	<0.04	<0.04
faecal coliforms	CFU/100mL	every 6 days	4	<1	8	28
nitrogen (ammonia)	mg/L	every 6 days	4	<0.01	0.46	1.8
nitrogen (total)	mg/L	every 6 days	4	6.3	7.89	12
phosphorus (total)	mg/L	every 6 days	4	0.02	0.02	0.03
total suspended solids	mg/L	every 6 days	4	<2	<2	<2

EPA Point 17 Site code RM0017		Point description: Inlet to recycled water pump station				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
chlorine (total residual)	mg/L	every 6 days	6	1.67	2.15	3.3
faecal coliforms	CFU/100mL	every 6 days	6	<1	<1	<1
nitrogen (ammonia)	mg/L	every 6 days	5	<0.01	0.15	0.47
nitrogen (total)	mg/L	every 6 days	5	5.85	6.7	7.05
phosphorus (total)	mg/L	every 6 days	5	0.02	0.02	0.02
total suspended solids	mg/L	every 6 days	5	<2	<2	<2

Average and percentile limits are only applied annually for routine monitoring data in Table 1.

**Richmond Wastewater Treatment Plant
Pollution Monitoring Summary Correction Log**

EPL 1726

Licensee: Sydney Water Corporation
PO Box 399
PARRAMATTA NSW 2124



EPA Point 16 Site code RM0016		Point description: Outlet of dechlorination tank									
Pollutant	unit of measure	Original data			Corrected data			Date corrected	Date originally published	Monthly report	Reason
		minimum	mean	maximum	minimum	mean	maximum				
faecal coliforms	CFU/100 mL	<1	<1	<13	<1	5	13	18-07-14	9-05-14	April	Database calculation error
faecal coliforms	CFU/100 mL	-	-	<6	-	-	6	18-07-14	26-03-14	February	

EPA Point 17 Site code RM0017		Point description: Inlet to recycled water pump station									
Pollutant	unit of measure	Original data			Corrected data			Date corrected	Date originally published	Monthly report	Reason
		minimum	mean	maximum	minimum	mean	maximum				
faecal coliforms	CFU/100 mL	<1	<1	<1	<1	<1	1	18-07-14	18-02-14	January	Database calculation error
faecal coliforms	CFU/100 mL	<1	<1	<1	<1	<1	1	18-07-14	10-01-14	December	