



Water Treatment Solutions

ANNUAL REPORT

Recycled Water Quality Management Plan (RWQMP) Parry House/Hostel Recycling Scheme

Date: September 2019

1. Introduction

Following Appendix K from the RWQMP, this report corresponds to the immediately preceding financial year and contains detailed information on sampling results from Parry House/Hostel scheme.

Table 1: Summary of the Parry House-Hostel general information

Name of Scheme	Parry House and Parry Hostel Recycled Water Scheme
Local Government	Shire of Kalamunda
Address of Scheme Owner	74 Warlingham Drive, Lesmurdie
Scheme Information	Reuse treated wastewater for irrigation
Location	Parry House - 74 Warlingham Drive, Lesmurdie
Source of recycled water	Waste water from retirement village
Volumes of recycled water produced per year	Approx 13,000Klt /year
End uses of the recycled water	Subsurface irrigation
% of recycled water used in each one of the proposed end uses	100% reuse on irrigation
Type of treatment system	Waste Water Treatment Plant – Aerobic Treatment Unit
Location of the WWTP	Coordinates 31° 59'58.21"S; 116° 2'51.85"E
Minimum, average and maximum flows per day	12Klt/d – 15Klt/d – 17Klt/d
Peak inflow of the plant	17Klt/d
Number of people using the recycled water	90
Irrigation area in m ²	3,300m ²
Risk exposure level	Low

Table 2: Approval Record

	Approval Number	Date of Approval	Average WW Volume
Parry House	F-AA 09325	23 rd November 2012	9 Klt/d
Parry House + Hostel (upgrade)	C48/00000	16 th June 2014	15 Klt/d

2. Quality of recycled water

2.1. Guidelines and continual monitoring

Table 3: Guidelines limits

Exposure Risk Level	Continual Monitoring Frequency		
	Parameter	Guideline Limit	Frequency
Low	E. Coli	<1000cfu/100ml	Monthly
	BOD	< 20 mg/L	Monthly
	TSS	< 30 mg/L	Monthly
	pH	6.5 - 8.5	Continual
	Disinfection	Cl: 0.2-2.0 mg/L residual	Continual

2.2 Recycled water quality sampling

Table 4: Summary of laboratory recycled water quality results

Parameter	Units	Frequency of sampling	Total No of samples	Min	Max	Median	Complying
E.Coli	cfu/100ml	Monthly	12	0	24	2	yes
BoD	mg/L	Monthly	12	5	5	5	yes
TSS	mg/L	Monthly	12	5	34	8	yes
pH		Continuously	12	3.6	7.3	6.18	Slightly below min.
Disinfection	mg/L	Continuously	12	0.1	62	11.31	Above max.

2.3 Sampling Record

Table 5: Sampling summary

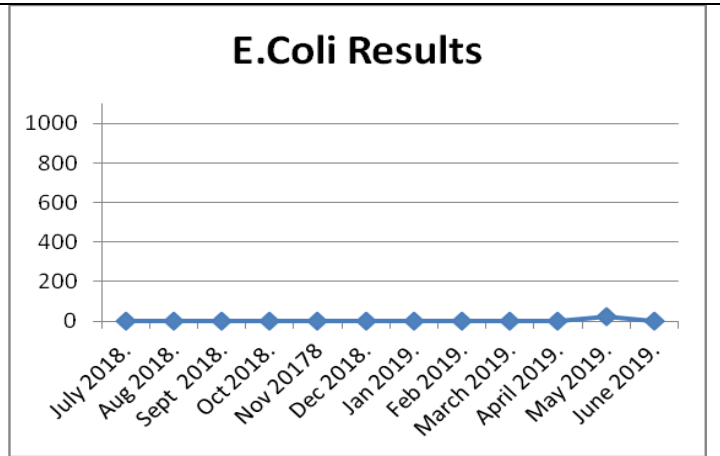
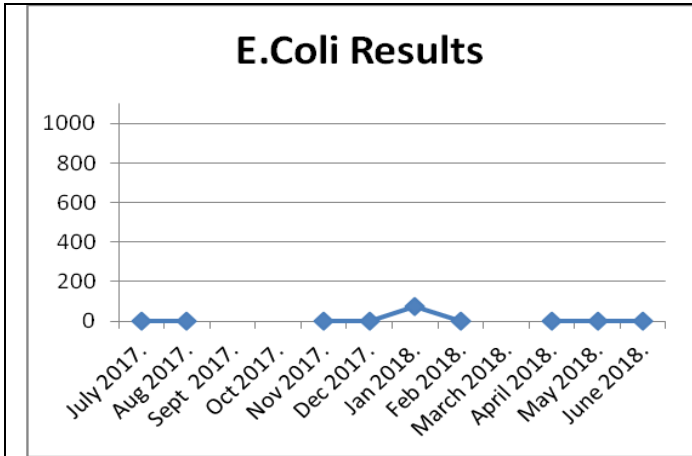
Sample Date	Parameter	Results	LAB	Report Number
July 2018.	E.Coli	0 CFU/100ml	ARL	18-10325
	BOD	5 mg/L	ARL	18-10325
	TSS	34 mg/L	ARL	18-10325
	pH	7.3	ARL	18-10325
	Disinfection	0.11 mg/L	ARL	18-10325
Aug 2018.	E.Coli	0 CFU/100ml	ARL	18-11864
	BOD	5 mg/L	ARL	18-11864
	TSS	5 mg/L	ARL	18-11864
	pH	7.1	ARL	18-11864
	Disinfection	0.42 mg/L	ARL	18-11864
Sept 2018.	E.Coli	0 CFU/100ml	ARL	18-13621
	BOD	5 mg/L	ARL	18-13621
	TSS	5 mg/L	ARL	18-13621
	pH	4.5	ARL	18-13621
	Disinfection	0.07 mg/L	ARL	18-13621
Oct 2018.	E.Coli	0 CFU/100ml	ARL	18-15072
	BOD	5 mg/L	ARL	18-15072
	TSS	5 mg/L	ARL	18-15072
	pH	5.9	AQ Online	
	Disinfection	1 mg/L	ARL	18-15072
Nov 20178	E.Coli	0 CFU/100ml	ARL	18-16484
	BOD	5 mg/L	ARL	18-16484
	TSS	5 mg/L	ARL	18-16484
	pH	3.6	ARL	18-16484
	Disinfection	0.37 mg/L	ARL	18-16484
Dec 2018.	E.Coli	0 CFU/100ml	ARL	18-18089
	BOD	5 mg/L	ARL	18-18089
	TSS	7 mg/L	ARL	18-18089
	pH	6.9	ARL	18-18089
	Disinfection	0.23 mg/L	ARL	18-18089
Jan 2019.	E.Coli	0 CFU/100ml	ARL	19-00270
	BOD	5 mg/L	ARL	19-00270
	TSS	5 mg/L	ARL	19-00270
	pH	6.4	ARL	19-00270
	Disinfection	62 mg/L	ARL	19-00270

Feb 2019.	E.Coli	0	CFU/100ml	ARL	19-02002
	BOD	5	mg/L	ARL	19-02002
	TSS	5	mg/L	ARL	19-02002
	pH	6.4		ARL	19-02002
	Disinfection	32	mg/L	ARL	19-02002
March 2019.	E.Coli	0	CFU/100ml	ARL	19-03649
	BOD	5	mg/L	ARL	19-03649
	TSS	5	mg/L	ARL	19-03649
	pH	5.9		ARL	19-03649
	Disinfection	25	mg/L	ARL	19-03649
April 2019.	E.Coli	0	CFU/100ml	ARL	19-05936
	BOD	5	mg/L	ARL	19-05936
	TSS	5	mg/L	ARL	19-05936
	pH	6.1		AQ Online	
	Disinfection	2.5	mg/L	AQ Online	
May 2019.	E.Coli	24	CFU/100ml	ARL	19-07531
	BOD	5	mg/L	ARL	19-07531
	TSS	15	mg/L	ARL	19-07531
	pH	7.2		AQ Online	
	Disinfection	0.1	mg/L	AQ Online	
June 2019.	E.Coli	0	CFU/100ml	ARL	19-09365
	BOD	5	mg/L	ARL	19-09365
	TSS	5	mg/L	ARL	19-09365
	pH	6.9		AQ Online	
	Disinfection	1.2	mg/L	AQ Online	

2.4 Comparison against guidelines and data from previous years (limits in red)

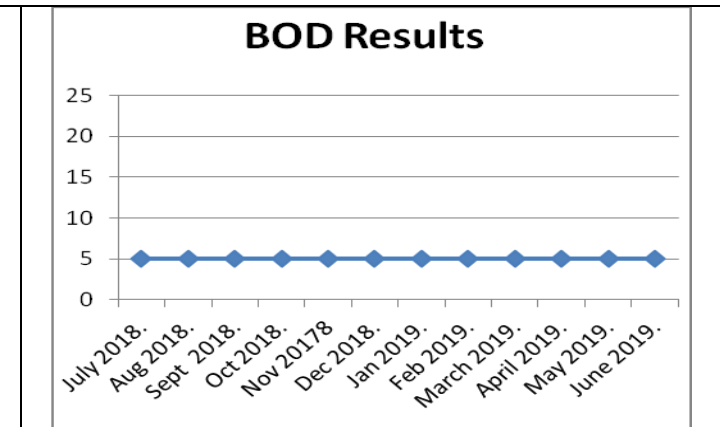
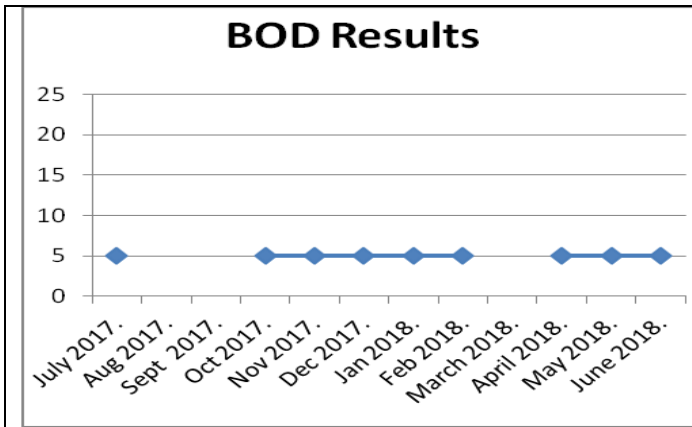
Current Period

Previous Period



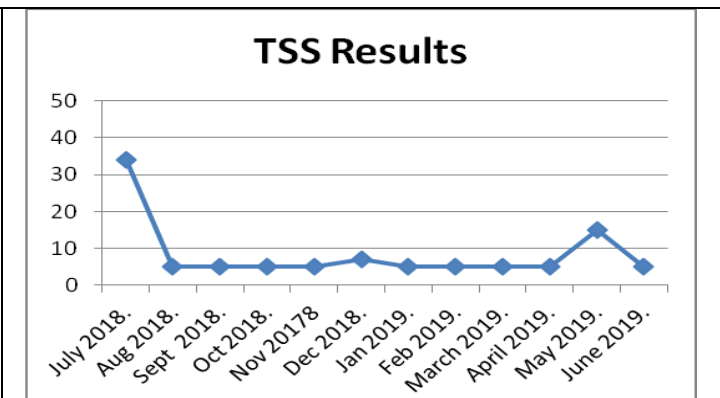
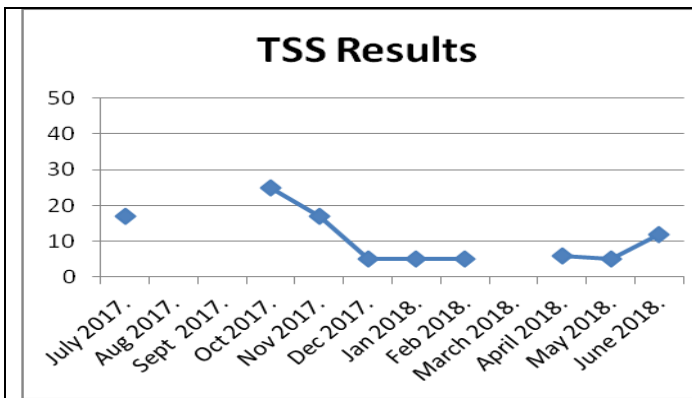
E. Coli results – July 2017 to June 2018

E. Coli results – July 2018 to June 2019



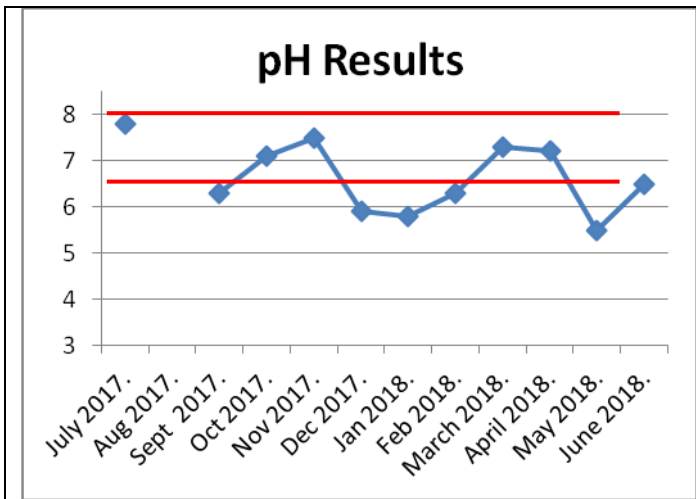
BOD results – July 2017 to June 2018

BOD results - July 2018 to June 2019

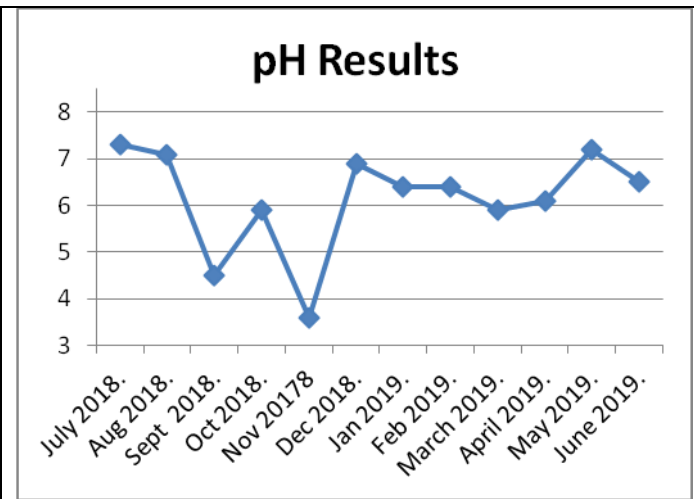


TSS results – July 2017 to June 2018

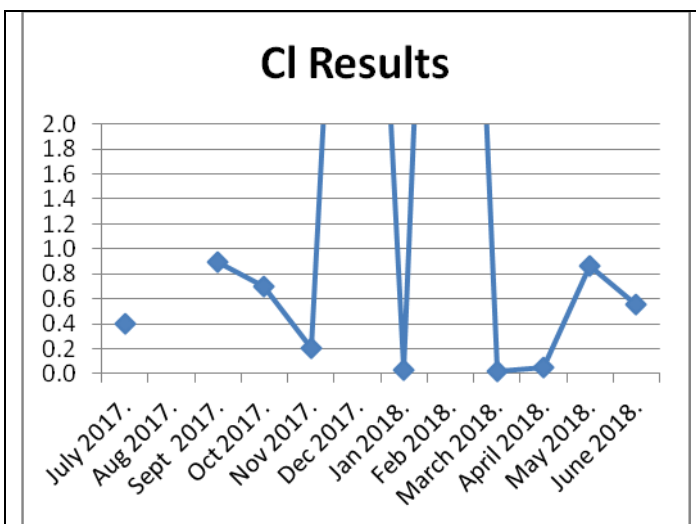
TSS results - July 2018 to June 2019



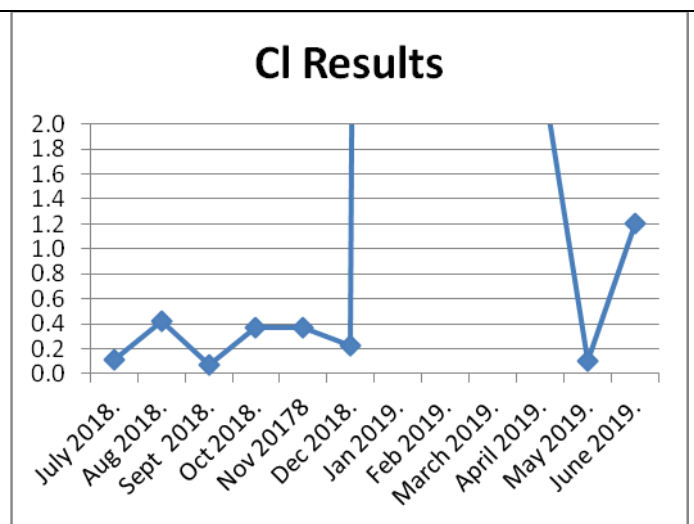
pH results - July 2017 to June 2018



pH results - July 2018 to June 2019



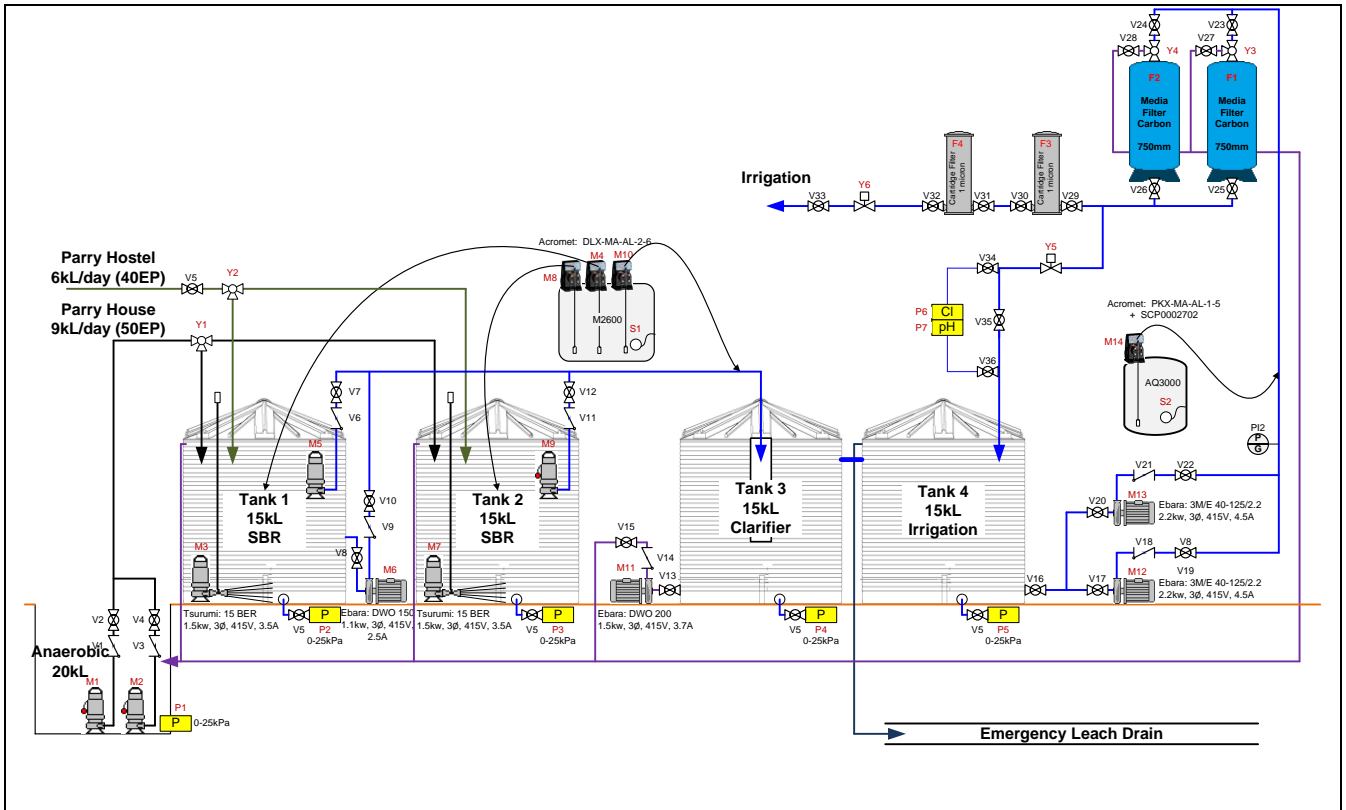
Disinfection results - July 2017 to June 2018



Disinfection results - July 2018 to June 2019

3. Details of Replaced Equipments

Current System:



Equipments replaced during this period:

- Compressor
- Cartridge filters
- Chlorine probes

4. Emergency and Incident Management

No emergency events during this period.

5. Complaints

No complaints received during this period.

6. Audit

An internal audit was conducted during the period of 2016/2017. No audit was requested for this year.

I trust this information demonstrates that Aquasol has maintained the plant and carried out the sampling program as required by the Authority.

In the meantime, should you have any queries regarding the information contained in this report, please do not hesitate to contact Paul Savage or myself at Aquasol.

Francisca Haro

Project & Environmental Co-ordinator
Aquasol Pty Ltd