



Water Treatment Solutions

ANNUAL REPORT

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

Date: 30st September 2016

1. Introduction

Following Appendix K from 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 as process water in carwash
Location	Parry House - 74 Warlingham Drive, Lesmurdie
Source of recycled water	Waste water from retire village
Volumes of recycled water produced per year	Approx 5,500Klt /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	45
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	9	0	0	0	Yes
BoD	mg/L	Monthly	9	5	5	5	Yes
TSS	mg/L	Monthly	9	5	21	6.7	Yes
pH		Continuously	9	6.6	7.6	7.19	Yes
Disinfection	mg/L	Continuously	9	0.1	1.1	0.9	Yes

2.3 Sampling Record

Table 5: Sampling summary

Sample Date	Parameter	Results	LAB	Report Number
2015/2016				
July 2015.	E.Coli	0 CFU/100ml	ARL	15-5367
	BOD	5 mg/L	ARL	15-5367
	TSS	5 mg/L	ARL	15-5367
	pH	6.9	AQ Online	
	Disinfection	0.36 mg/L	AQ Online	
August 2015.	E.Coli	0 CFU/100ml	ARL	15-6056
	BOD	5 mg/L	ARL	15-6056
	TSS	5 mg/L	ARL	15-6056
	pH	7.3	AQ Online	
	Disinfection	1.1 mg/L	AQ Online	
Oct 2015.	E.Coli	0 CFU/100ml	ARL	15-7781
	BOD	5 mg/L	ARL	15-7781
	TSS	5 mg/L	ARL	15-7781
	pH	6.5	AQ Online	
	Disinfection	0.85 mg/L	AQ Online	
Nov 2015.	E.Coli	0 CFU/100ml	ARL	15-8410
	BOD	5 mg/L	ARL	15-8410
	TSS	21 mg/L	ARL	15-8410
	pH	7.1	AQ Online	
	Disinfection	1.6 mg/L	AQ Online	
Dec 2015.	E.Coli	0 CFU/100ml	ARL	15-8860
	BOD	5 mg/L	ARL	15-8860
	TSS	5 mg/L	ARL	15-8860
	pH	7.6	AQ Online	
	Disinfection	0.95 mg/L	AQ Online	
January 2016.	E.Coli	0 CFU/100ml	ARL	16-00784
	BOD	5 mg/L	ARL	16-00784
	TSS	5 mg/L	ARL	16-00784
	pH	8.1	AQ Online	
	Disinfection	1.5 mg/L	AQ Online	
Feb 2016.	E.Coli	0 CFU/100ml	ARL	16-01156
	BOD	5 mg/L	ARL	16-01156
	TSS	5 mg/L	ARL	16-01156
	pH	6.9	AQ Online	
	Disinfection	0.55 mg/L	AQ Online	

March 2016.	E.Coli	0	CFU/100ml	ARL	16-01910
	BOD	5	mg/L	ARL	16-01910
	TSS	5	mg/L	ARL	16-01910
	pH	7.3		AQ Online	
	Disinfection	0.95	mg/L	AQ Online	

June 2016.	E.Coli	0	CFU/100ml	ARL	16-04828
	BOD	5	mg/L	ARL	16-04828
	TSS	5	mg/L	ARL	16-04828
	pH	7		AQ Online	
	Disinfection	0.3	mg/L	AQ Online	

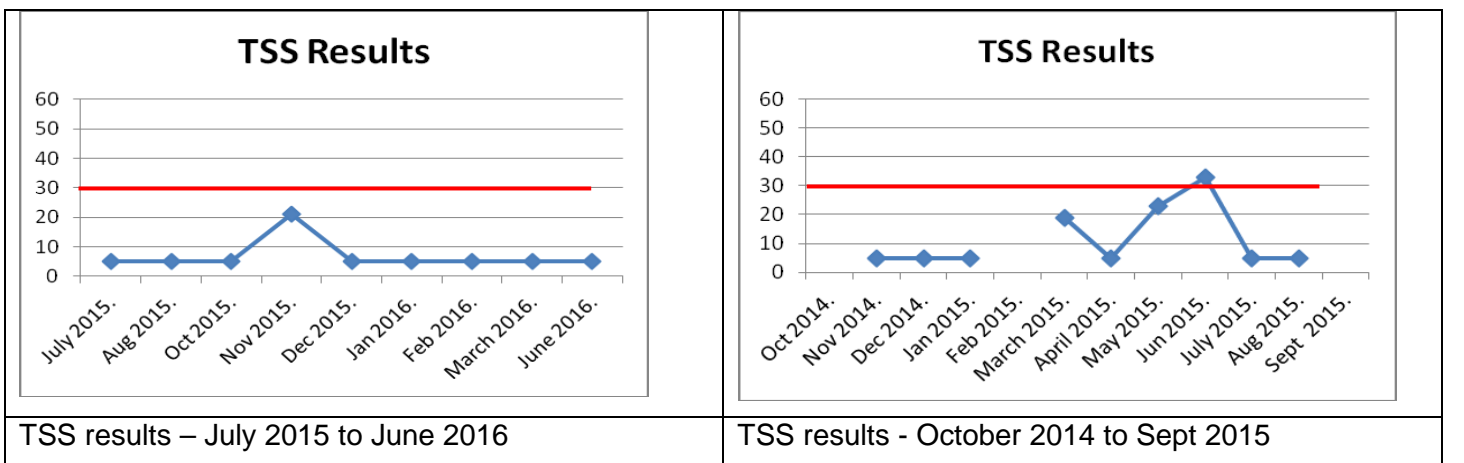
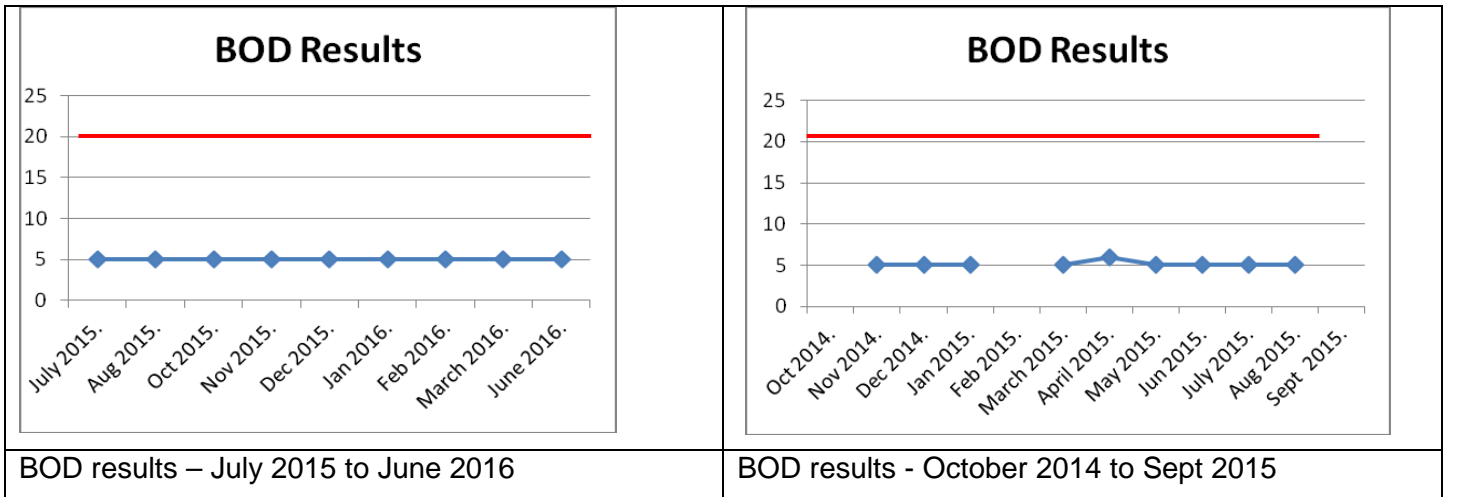
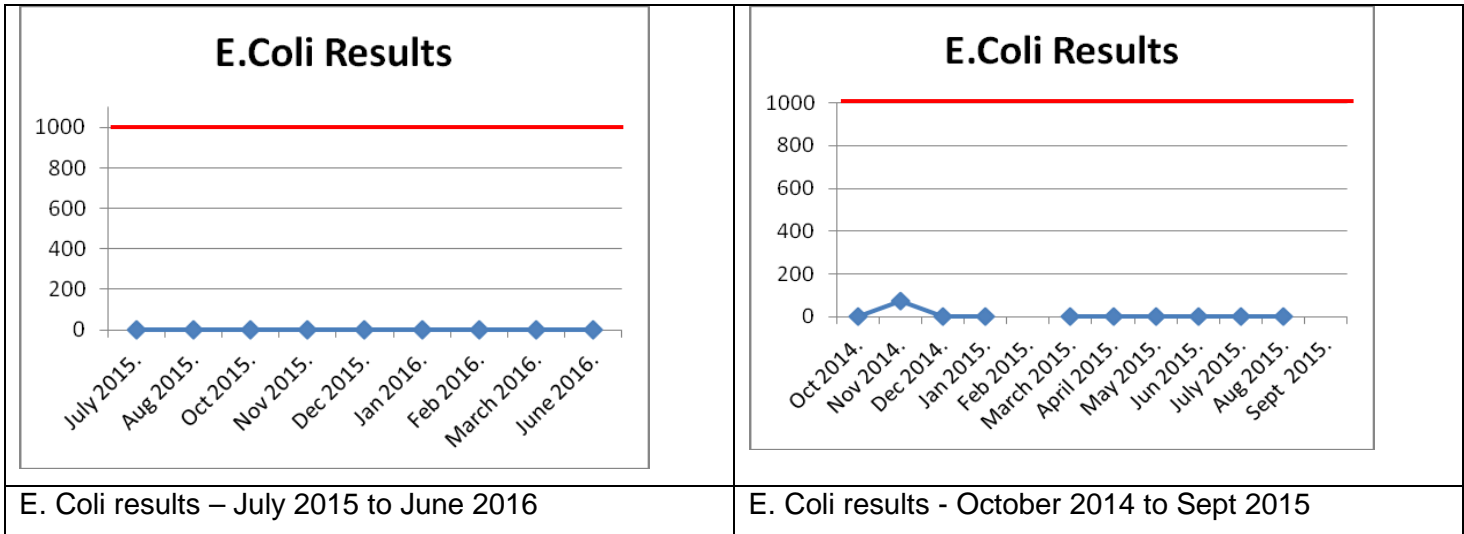
Comments on Sampling Summary

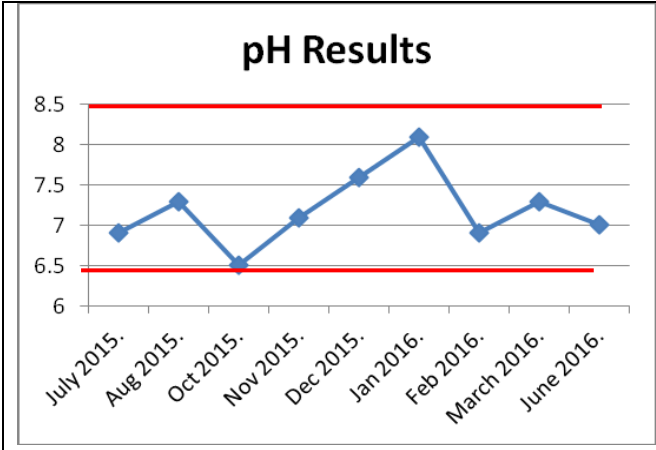
- Due to an internal period of staff transition and re allocation of service personnel, unfortunately September 2015 sample was not sent to the lab for testing.
- Due to internal overall general maintenance, system was off line for a period of time between April & May 2016; as a result, samples were not sent to the lab for testing.

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

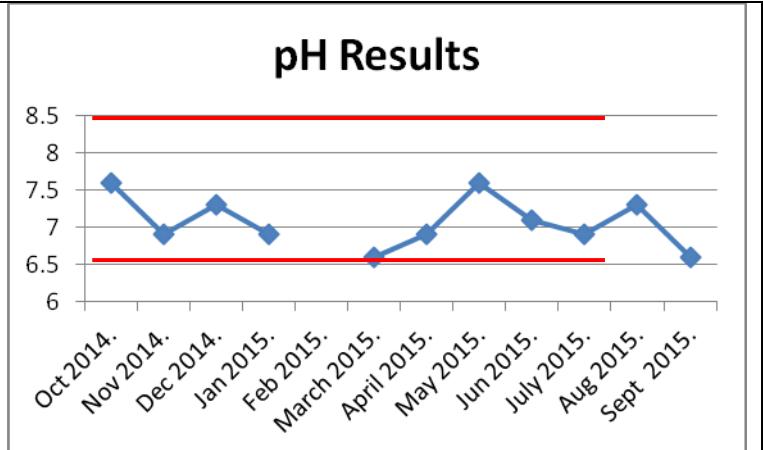
Current Period

Previous Period

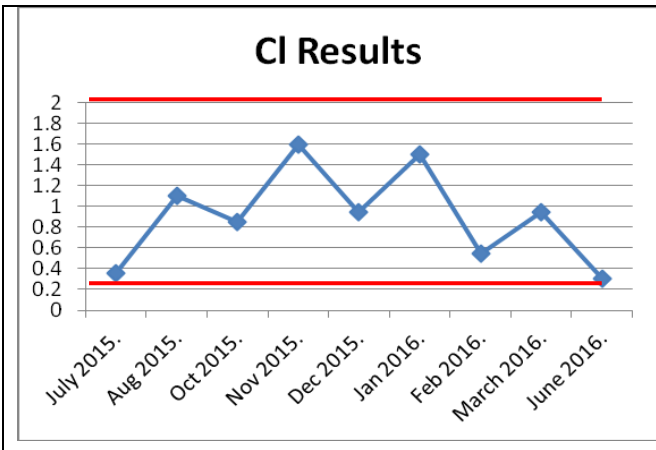




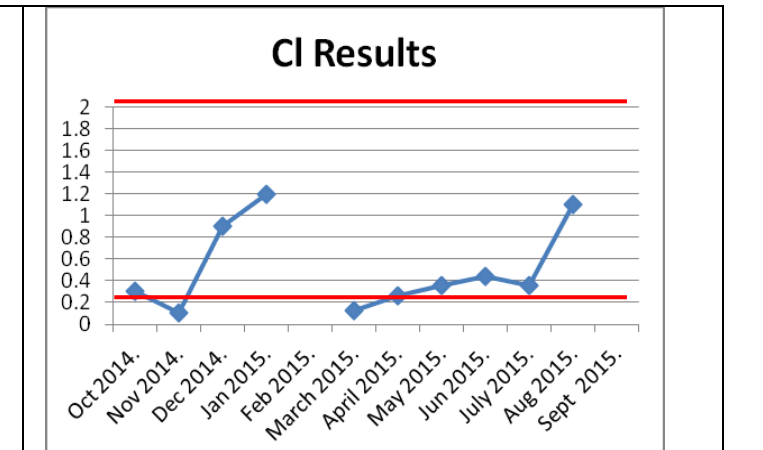
pH results - July 2015 to June 2016



pH results - October 2014 to Sept 2015



Disinfection results - July 2015 to June 2016



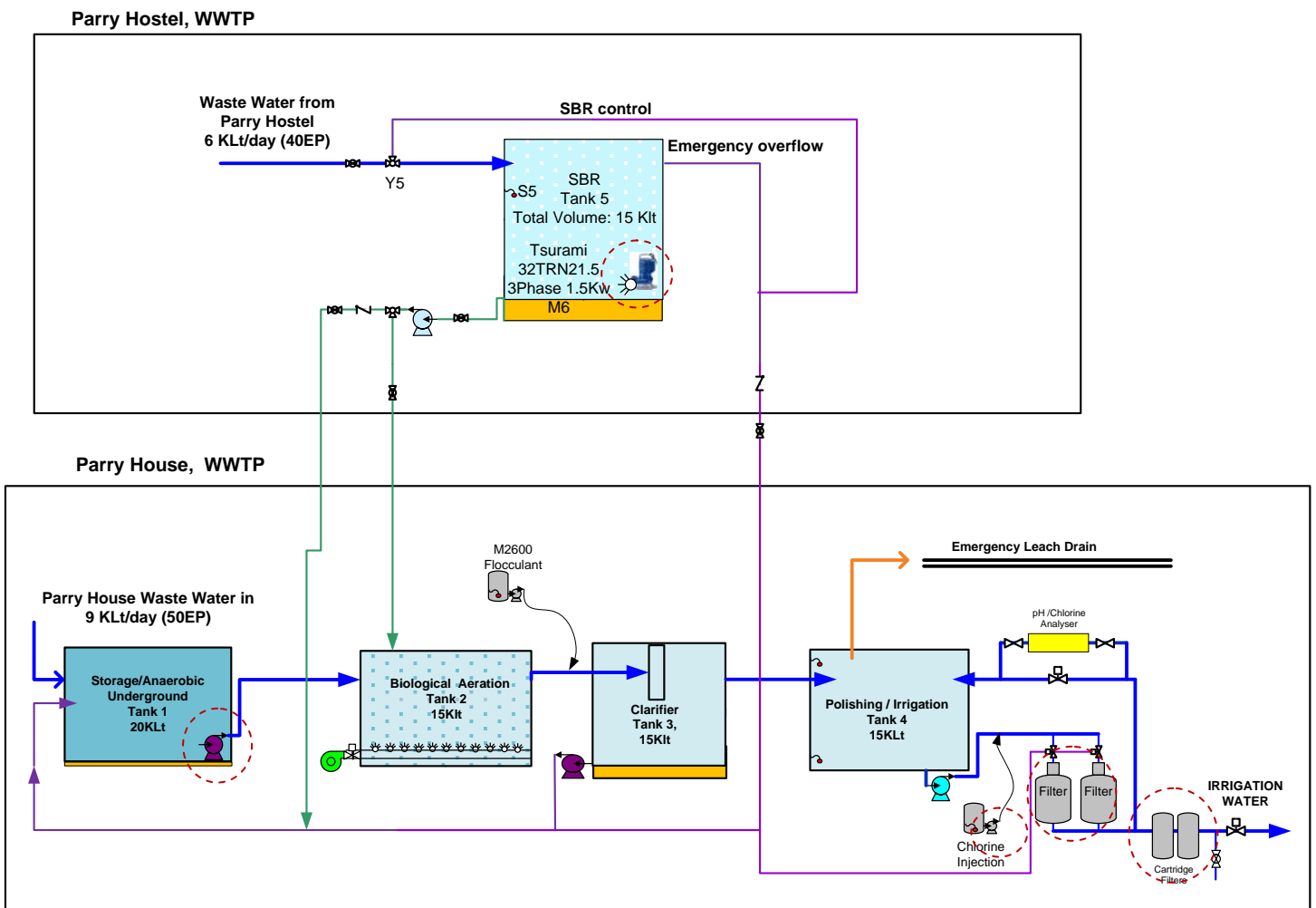
Disinfection results - October 2014 to Sept 2015

3. Details of Replaced Equipments

As a general maintenance, and to keep system in good running conditions, few equipment were replaced in this period.

List of equipments replaced are detailed below and marked red in drawing.

- Cartridge filter bags
- 1 x sludge pump
- 1 x chemical dose pump (chlorine injection)
- 1 x Air blower SBR tank
- Refill filtration media
- Air Compressor



4. Emergency and Incident Management

No emergency events were registered in existing Parry House/Hostel WWTP.

5. Complaints

No complaints received during this period.

6. Audit

Refer Enclosed.

I trust this information demonstrates that Aquasol has maintained and carried out 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 Ms Francisca Haro or myself at Aquasol.

Yours Faithfully
Aquasol Pty Ltd



Paul Savage
Technical Director