

Date: 7th August 2009

Our Ref: CN211418-2009-001

Attention: Trevor Dillon

trevor@macarthurstrata.com.au

RE: NANGARIN MAINTENANCE SCHEDULE AND CLARIFICATION

Dear Trevor,

The following table summarises the revised project tasks, responsible staff and timeframes to deliver the project.

Table 1- Nangarin Maintenance Schedule

Frequency	Tasks to be completed	Week Commencing	Responsible Party
Fortnightly Visit	Site Visit, observe plant performance, check pipe work, pumps and blowers, take water quality readings from plant and ponds.	3 rd August 2009	Tristan Newton-McGee
	Chlorine delivery to site	3 rd August 2009	Tristan Newton-McGee Tony Farugia
	Site Visit to attempt to correctly shut plant down for future upgrades	17 th August 2009	Tristan Newton-McGee Alan Kells
Monthly Visit	Check chemical usage, observe aeration in tanks, check holding ponds, collect samples for analysis, take water quality readings from plant and ponds	17 th August 2009	Tristan Newton-McGee
Fortnightly/ 6 monthly visit	Site Visit, observe plant performance, check pipe work, pumps and blowers, take water quality readings from plant and ponds.	31 st August 2009	Tristan Newton-McGee
	Measure MLSS in aeration tanks, check sludge level and remove if required,		

Frequency	Tasks to be completed	Week Commencing	Responsible Party
Monthly Visit	check biomass settling rate and structure Check chemical usage, observe aeration in tanks, check holding ponds, collect samples for analysis, take water quality readings from plant and ponds	14 th September 2009	Tristan Newton-McGee
Fortnightly Visit	Site Visit, observe plant performance, check pipe work, pumps and blowers, take water quality readings from plant and ponds.	28 th September 2009	Tristan Newton-McGee
Monthly Visit	Check chemical usage, observe aeration in tanks, check holding ponds, collect samples for analysis, take water quality readings from plant and ponds	12 th October 2009	Tristan Newton-McGee
Fortnightly/ 2 monthly visit	Site Visit, observe plant performance, check pipe work, pumps and blowers, take water quality readings from plant and ponds. Dismantle and check/clean contra sheer screen, Check diffusers for aeration efficacy, check biomass carriers	26 th October 2009	Tristan Newton-McGee
Monthly Visit	Check chemical usage, observe aeration in tanks, check holding ponds, collect samples for analysis, take water quality readings from plant and ponds	9 th November 2009	Tristan Newton-McGee
Annual	Site Audit	23 rd November 2009	Tony Farugia Tristan Newton-McGee Trevor Dillon

The following information aims to clarify the comments in the report with respect to the elevated *E.coli* result. Under the existing licence conditions of the EPA License 004182 there is no set limit for *E.coli*, therefore there is no breach of license conditions. In the Environmental Management Plan, the objective for the Sewage Treatment Plant operation is to operate within the license conditions and to produce reuse water which has a quality which meets ANZECC guidelines for P class water. The ANZECC guidelines referred to in this document have since been updated. The most recent version of ANZECC (2000), does not specify P class water but does indicate that a median *E.coli* concentration for processed food crops is <1000cfu/100mL. The overall plant performance for the previous 6 months meets this objective. The 1400cfu/100mL is above this

trigger level and as such prompted action.

It should be noted that there have been advances in the way public health risk is managed from recycled water systems. Although this plant is still under EPA licence conditions, all decentralised recycled water schemes have been licensed to operate by the Department of Water and Energy over the last 5 years. There are now stricter operating conditions for recycled water with all monitoring required to meet the objective of 1000cfu/100mL *E.coli*. The new obligations are considered best practice and therefore should be considered for the future management of the plant.

Regards,

Danielle Baker

Senior Consultant