

Transitional Environmental Program

EPPR03383115 (SPCE05672613) Lorim Pt Sewerage
Treatment Plant

December Interim Report 2016

DEHP Reference: MAN19460, CR68203, 101/0008737

1.1 Lorim Point Sewage Treatment Plant (STP)

The Lorim Pt STP TEP is to implement a program of works to reduce Thermotolerant coliforms to its new Environmental Authority (EA) license level of 1000CFU/100ml. This program of works is proposed to progress in three stages. Following the completion of each stage a monitoring and review period will allow RT Weipa to understand how the changes have affected the ability of the plant to achieve the EA requirement relating to Faecal Coliforms, and to determine whether it is necessary to progress to the next stage.

The actions proposed for Stage 2 of the Lorim Pt TEP are in Table 1, and include action progress of each of the steps. This report is to provide the assessment of stage 1 and its effectiveness.

1.2 Stage 2 Assessment

Assessment of Stage 2 “Function design Changes” shows that additional work is required to control the quality of the outflow from Lorim Pt STP.

Conclusion is that the plant has not been successful in achieving a faecal coliform limit of 1000CFU/100ml during the reporting period. Stage 3 has involved the installation of the Membrane module which is anticipated to effectively remove Thermotolerant coliforms and Total Suspended solids from the effluent.

Regular monitoring of the outflow during the period of this report shows highly variable levels of thermotolerant coliforms. Figure 1, shows the variable nature overtime.

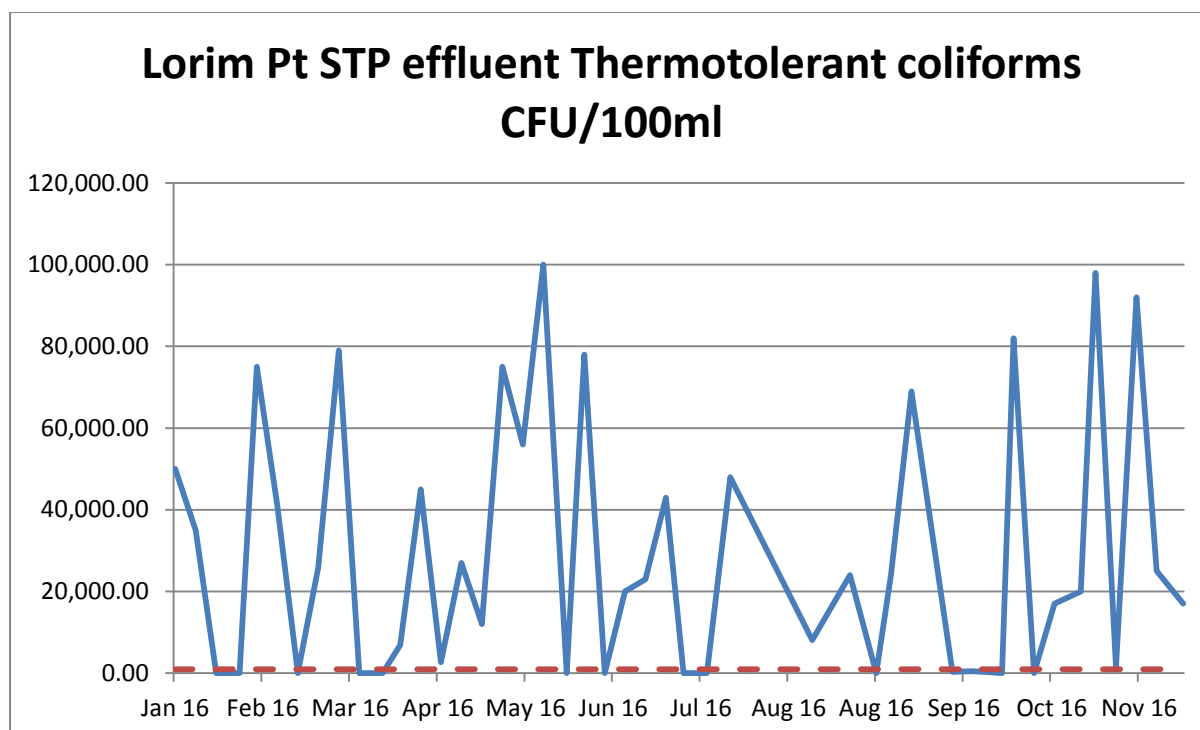


Figure 1 Thermotolerant Coliforms results from effluent testing at Lorim Pt outflow. Showing licence limit of 1000CFU/100ml

RTA Weipa will continue to progress through to the final stage, and install the membrane option to its completion allowing further modifications to the plant to improve disinfection.

RTA Weipa has submitted an amended TEP document to DEHP, and at the time of writing this report, it was in the regulatory assessment period for DEHP. It is expected that in early January 2017 a formal response will be given by DEHP.

The final assessment of all Stages will be submitted by May 31st 2017.

Table 1. Proposed program of works Stage 2 for Lorim Pt STP. including status

Objective of Stage	How the Stage will Reduce Faecal Coliforms	Actions	Dates	Performance Indicators	Status	SAP Action ID
Modify the plant to improve nutrient removal and include an anoxic treatment phase into the plant cycle	Modifications of pipework will redirect screened waste water into a holding tank to avoid short circuiting and hold peak volumes during high rainfall events. This will improve nutrient removal in the bioreactor.	Clean out sludge lagoon	To be completed by August 31 st 2016	Clean out of sludge lagoon complete.	Completed	100864020
		Install balance tank pump	If required, to be completed by November 30 th 2016	Balance tank pump installed	Completed	100864021
		Modify pipework to accommodate additional operational changes	To be completed December 31 st 2016	Pipework modified.	Completed	100864023

	Modifications will include the installation of mixers in the bioreactor. This will reduce nitrate levels.	Modify coding of plant to incorporate changes and new plant operation cycles.	To be completed by December 31 st 2016	Coding of plant modified.	Complete	100864026
	Assess effectiveness of Stage 2 modifications	Conduct water quality testing to assess the effectiveness of the Stage 2 modifications and detail in a report submitted to the Administering Authority.	Weekly monitoring to be conducted from August 1st 2016 to November 30 th 2016 Report to be submitted by 31 st December 2016	Weekly monitoring completed Report to administering authority submitted	Completed	100864028, 100864029
		If Stage 2 modifications are effective in transitioning to compliance to Faecal Coliform release limits in accordance with Condition C4 of Development Approval EHP Permit number SPCE05672613, as required by Environmental Authority EHP Permit number EPPR03383115, no further action under this TEP is required, and a final TEP report will be provided within one month of Stage 2 being completed. If Stage 2 modifications are not effective in transitioning to compliance to			Completed	100864050

		Faecal Coliform release limits, RT Weipa will proceed with Stage 3.				
Install an additional disinfection treatment system that will achieve compliance to Faecal Coliform release limit	Purchase and installation of an additional disinfection treatment system	Identify, scope and order suitable upgrade option 1.	To be completed by December 31 st 2016	Selected option purchased	Completed	100864053
		Install selected option	To be completed by March 31 st 2017	Selected option installed.	Completed	100864054

	Assess effectiveness of Stage 3 modifications	Conduct water quality testing of key parameters to measure the performance of key equipment within the plant. Complete Final TEP close out report	Weekly monitoring to be conducted from – December 1st 2016 to 31st April 2017 To be completed 31st May 2017	Weekly monitoring completed Achieve compliance to Faecal Coliform release limits in accordance with Condition C4 of Development Approval EHP Permit number SPCE05672613 as required by Environmental Authority EHP Permit number EPPR03383115	Pending	100864055, 100864056
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