

MAREEBA SHIRE COUNCIL

MAREEBA SEWAGE TREATMENT PLANT UPGRADE

Transitional Environmental Program

Milestone Report March 2017

1. Introduction

The Mareeba Sewage Treatment Plant (STP) services the township of Mareeba. Mareeba is located approximately 60 km north west of Cairns in Far North Queensland. The local authority for Mareeba is the Mareeba Shire Council (MSC) which owns and operates the existing STP.

MSC operates its Mareeba STP under an Environmental Authority. The existing STP at Mareeba is an aging facility and is hydraulically overloaded and does not meet license conditions for several parameters including ammonia-N and BOD.

MSC seeks to provide improvement to the treatment process particularly focusing on hydraulic capacity and discharge effluent quality. The works are intended to provide Mareeba with a sustainable future for the plant to cater for future growth in the Mareeba region.

2. Background

On 17 November 2014, DEHP approved MSC's voluntary draft Transitional Environmental Program (TEP). The TEP has since been amended twice to reflect amendments to the internal milestones and to accommodate a new Environmental Authority. The approved TEP, dated 24 August 2015, details the way forward for MSC to achieve compliance with its Environmental Authority. The TEP contains objectives and milestones that must be met. This report describes MSC's progress towards achieving those objectives and completing the milestones.

3. Objectives and Progress

Objective 1: Compliance with EA Condition 5F.WT1 (Surface Waters Release Limits)

On 24 August 2015, DEHP approved an amendment to the TEP to accommodate new surface water limits imposed under amended Environmental Authority EPPR01792213.

The new license limits were included as part of the tender specification for the Mareeba WWTP Upgrade and now forms part of the Final Design Report. The bioreactor will be initially sized to provide a 12,500 equivalent persons capacity with an average dry weather flow of 3.8ML/day and then in Stage 2, the ultimate 16,000EP capacity (5ML/day) when converted to an MBR.

In the previous milestone report, the physical completion date of the upgrade was anticipated in March 2017, due to contractual administrative issues. Works are now 85% completed with mechanical and electrical works delayed due to wet weather. This was recently outlined in a letter to EHP dated 21 February 2017. Further delays are now expected in receiving deliveries due to road blockages caused by Cyclone Debbie.

Objective 2: 5F.WT2 (Monitoring of Volume of Release)

A flow meter to measure the quantity of effluent has been installed.

Objective 3: 5F.G7(Receiving Environment Monitoring Program).

Environmental monitoring has been undertaken in accordance with the Receiving Environment Monitoring Program. The fourth round of biological sampling for macroinvertebrates has been completed. Attached for your information is the REMP Round 4 Pre Wet Season 2017 Report. The REMP is due to be reviewed after the fourth round of macroinvertebrates sampling.

Objective 4: 5F.G1 (Inflows that must be bypassed)

Wastewater Operators continue to diligently monitor inflows requiring bypassing of the inlet works to prevent gross solids carry over or ragging in downstream structures. No inflows have required bypassing in recent months.

4. Hold Points and Performance Indicators

Council has been driving the desired outcomes and can report on the achievements relating to the March 2016 milestone.

Performance Indicators	Date	Responsibility	DEHP Report Date
Completion of process design brief and geotechnical plans.	27 April 2015	Director Infrastructure Services	April 2015
<i>Status: Completed.</i>			
Completion of financial modelling for remainder of works.	27 April 2015	Director Infrastructure Services	April 2015
<i>Status: Completed.</i>			
Completion of REMP design.	27 March 2015	Director Infrastructure Services	April 2015
<i>Status: Completed.</i>			
Completion of packaged Inlet works documentation.	30 June 2015	Director Infrastructure Services	September 2015
<i>Status: Completed.</i>			
Implementation of REMP	01 July 2015	Director Infrastructure Services	September 2015
<i>Status: Completed</i>			
Completion of Concept Process Design	30 June 2015	Director Infrastructure Services	September 2015
<i>Status: Completed.</i>			
Tender document preparation.	30 June - 30 August 2015	Director Infrastructure Services	September 2015
<i>Status: Completed.</i>			
Tender Period	30 August 2015 - 30 October 2015	Director Infrastructure Services	November 2015
<i>Status: Completed.</i> Tenders are now closed.			
Tender Awarded	30 November 2015	Director Infrastructure Services	December 2015
<i>Status: Completed</i> Tenders have been awarded. Contracts are in place.			
Construction Commences	December 2015 - December 2016	Director Infrastructure Services	March, Sept, Dec 2016

Status: Current



Photo 1: Aerial photo of Mareeba WWTP construction.

Completion Construction	February 2017	Director Infrastructure Services	March 2017
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Status: Forecast

Substantial completion of construction is expected in May 2017. Power will come online in April 2017.

Commissioning and start verification testing	March 2017	Director Infrastructure Services	March 2017
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Status: Current

Dry commissioning has commenced and is ongoing. Wet commissioning is expected to commence in May 2017.

Defects liability and verification testing period	April 2017	Director infrastructure Services	September 2017
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Status: Forecast

Process cutover will commence June 2017