



KEMPSEY
Shire Council

DIRECTOR SHIRE SERVICES REPORT

11th September 2007

DSS8	HAT HEAD SEWERAGE TREATMENT PLANT UPDATE
	FILE: 217 SLM {Folio No. *}

SUMMARY:

Reporting on an update on the Hat Head Sewerage System

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DESCRIPTION:

Sewerage Treatment Plant

As reported to Council in March 2007, two items were outstanding on the contract's Defects Liability Period (DLP) and the current status of these items is listed below. All outstanding items have now been resolved and the contract is being finalised.

Table 1: Status of Items as per Defects Liability Period

Item	Action	Status
Decant floats tilting during aeration in digester & storage tanks	Process improvement gained and stabilised. Financial settlement reached for additional labour required in addressing process and the additional half day per week that has been required for the Plant's operation.	Complete
Inlet works overflowing	The inlet works modifications trialled through Easter were successful. OH&S issues arising from the modifications have been addressed through a financial settlement, where Macleay Water will complete the necessary platform and access modifications	Complete

The weather shelter over the chemical tank area has been completed. The shelters performance for heat protection and limiting rain ingress to the chemical bunded areas has been successful to date and will be further monitored during the summer period.

Assessment of the water consumption data versus STP inflow data has commenced as per Phase 1 of DCP37. In accordance with Section 3.2 of DCP37, the outcomes of this assessment will determine the available spare capacity for development as per Phase 2 of DCP37.

Aeration Grids – sludge storage tanks and the main reaction chamber

The aeration grids within the sludge storage tanks and the main reaction tank have been identified as failing. The aeration arms are breaking off due to the poor support and protection for these arms and the whip-type action these arms experience upon start up of the blowers. A soft start (variable speed drive) already exists on the blowers that feed the aeration grids, so addressing the source of the problem from the mechanical generation point was not possible.

Whilst one of the Sludge Storage Tanks was empty after centrifuging, the Macleay Water Technicians team designed and placed a means of support for these arms and protection from the decanter float's hose. The support and protection has proven successful and as part of the Sewage Treatment Plant contractor's settlement an amount was offered for the rectifications completed in the first sludge storage tank and those yet to be completed for the second sludge storage tank. This was possible as the damage was incurred by the decanter floats, which were still under the defects liability period.

The aeration in the main reaction chamber was not covered under the defects liability period and as that part of the contract was accepted, no recourse against the contractor is possible. Macleay Water is currently seeking the advice of several aeration companies to ascertain the likely cost and impact on the process of such a rectification. As there is only one reaction tank within the STP, alternative means to process incoming sewage is required as well as limiting the timeframe for those repairs.

EPA Licence

One licence failure occurred between March and August. The licence failure did not occur through the peak period of Easter and the associated holidays. The Licence failure was for Faecal Coliforms (normally represents poor disinfection levels by the chlorination system) and occurred as a result of the courier's delayed delivery of EPA samples to the Laboratory in Coffs Harbour. Samples from this chlorinated sewage treatment plant must arrive at the Laboratory within a 6-hour period. Subsequent resamples were successful. Alternative couriers were sourced and the problem has not reoccurred.

Sewerage Pumping Station

The bonds held for this portion of the project have been released back to the head contractors (New England Excavations).

REPORT IMPLICATIONS:

- ***Environmental***

The environment of Hat Head has been improved by the now efficient running of the Sewage Treatment Plant.

- ***Social***

The moratorium on the future development in Hat Head under DCP37 continues. Under Phase 1 Council will continue to issue

deferred commencement consents. Phase 1 of DCP37 will continue until there is sufficient data to confirm that additional capacity exists in the water and sewerage system.

- *Economic (Financial)*

The compensatory payment by the contractor addresses the medium term impacts posed operationally for the Hat Head Sewage Treatment Plant.

- *Policy or Statutory*

Nil

RECOMMENDATION:

1. That the more efficient operation and the direction to finalise the Defects Liability Period for the Hat Head Sewage Treatment Plant be noted.
2. That in accordance with Section 3.2 of DCP 37, an assessment be undertaken to determine whether the system has sufficient capacity to facilitate implementation of Phase 2 of the Plan.

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DIRECTOR SHIRE SERVICES