



## DIRECTOR SHIRE SERVICES REPORT

14<sup>th</sup> November 2006

**DSS9                      HAT HEAD SEWERAGE**  
**FILE: 217    AMB/PGA            {Folio No. \* }**

### SUMMARY

Reporting on the Hat Head Sewerage System.



### DESCRIPTION:

This report is provided in accordance with Council resolution (2006.579) and provides an update on the Hat Head Sewerage Scheme.

### Sewerage Treatment Plant

On the 15 August 2006, the Defects Liability Period (DLP) expired. Of the eleven (11) items identified at the end of the DLP three (3) main items remain as outstanding and these are listed below. These remaining outstanding items are of enough significance to affect the capacity of the Plant. Two of the five items reported in September have been addressed and they were the items related to the SCADA and computer control of the Plant. The table below provides a brief outline of the outstanding items.

**Table 1: Outstanding Items as per Defects Liability Period**

Item	Action	Timeframe
Leaking Chlorine Tank	To be replaced by contractor	Contractors have ordered tank, awaiting delivery advice
Decant floats tilting during aeration in digester & storage tanks	Contractor to address	Unsuccessful rectification trial occurred during September and October. Contractors for Tenix were onsite October 30-31 to install additional tethers on each float. Currently determining if tilting has been rectified
Inlet works overflowing	To be rectified by	An inlet pipe modification was constructed and trialled through

	contractor	September and October and was unsuccessful. Further on-site investigation site visit by Tenix on 31 October and proposals are currently being considered.
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If the remaining DLP items are not addressed quickly and successfully an extension of this DLP will occur.

The plant is not yet operating as designed with critical portions of the Plant's process being compromised as outlined in Table 1. Operational costs are higher than projected being a combination of onsite visits/observations/rectifications, offsite dial-in performance monitoring and laboratory testing. The operational costs are being monitored against budget allocations.

Quality assurance monitoring of the chlorine has shown it to be losing its strength (capability to disinfect) much more quickly than it should. This led to a licence failure with a high faecal coliform count in the effluent discharge in October. Until the new chlorine tank is delivered, it is difficult to determine if the poor state of this chlorine tank is significantly contributing to the chlorine's strength depletion. It is suspected that inadequate heat protection is contributing to this problem and a temporary shade structure has been placed over the chlorine tank as a remedial measure. A more permanent shade structure has been designed and costed for all of the chemical tanks and its associated pipework. If the shade structure is required, its design would permit operational, maintenance and delivery access and is estimated at \$30,000. It is recommended that this amount be made available from sewer fund reserves to enable quick construction, if needed. If not required, the funds will be returned to reserves.

If not resolved by contractors, the frequency of the inlet works overflows will be exacerbated over the Christmas period. To monitor and deal with this overflow in this peak season, it is expected additional labour costs (at overtime rates) may be incurred.

The site visit by Tenix on the 29 August to rectify the digester and storage tank decant float issues failed to improve the float operation and in the process damaged a series of aeration grids in the digester and storage tanks. Council repaired the aeration grids in the digester in mid September and are seeking reimbursement of costs from Tenix.

## **Sewerage Pumping Station**

The Defects Liability Period for the Pump Station also concluded on 15 August 2006. Macleay Water is now in the process of releasing bonds back to the head contractors (New England Excavations). As procedures to recover outstanding monies owed by Flowvac (a

subcontractor of New England Excavations) have been unsuccessful, a deduction is to be made from the final payment.

## **EPA Licence**

There has been one licence non-compliance due to the disinfection process (chlorination). Consultation between EPA and Council is ongoing and the EPA are aware of issues concerning the operation of the plant.

## **REPORT IMPLICATIONS:**

- *Environmental*

*When running efficiently and when all customer connections are complete the sewerage system will improve the environment of Hat Head.*

- *Social*

*The moratorium on the future development in Hat Head under DCP 37 continues whilst DLP issues are being resolved. Customer connections are currently at approximately 96%.*

- *Economic (Financial)*

*A budget allocation of \$30,000 is required from the sewer fund reserve to promptly construct a shade shelter over all chemical storage tanks if deemed necessary.*

- *Policy or Statutory*

*Contractual obligations/requirements are being followed to resolve the outstanding matters*

## **RECOMMENDATION:**

- 1 That \$30,000 be transferred from sewer fund reserves to a capital budget allocation for a chemical storage shade shelter.
- 2 That no action be taken to review DCP37 at this point in time.
- 3 That a further report be submitted to Council in March 2007.

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**A P Vermeulen**  
**DIRECTOR SHIRE SERVICES**