



KEMPSEY
Shire Council

DIRECTOR SHIRE SERVICES REPORT

3rd February 2009

DSS10	HAT HEAD SEWERAGE SCHEME - PROGRESS REPORT	FILE: 217	AMB (NRN)	{Folio No. *}
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SUMMARY:

Reporting on the progress of the Hat Head Sewerage Scheme

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DESCRIPTION:

This Council report provides an update on the Hat Head Sewerage Scheme. The previous Council report on this matter was November 2008 (DSS13).

Dune disposal area

The report on the dune disposal area's performance has been submitted to Department of Environment and Climate Change (EPA) and there has been no reply as yet. In summary, this report acknowledges appropriate performance of the dune disposal area and indicates some areas of potential concern that require continued monitoring to assure of appropriate performance. In accordance with recommendations of the report, Macleay Water has engaged consultants for the further assessment of the dune disposal area through both this and next year.

Sewerage reticulation system

Consultants are continuing with work to model the vacuum reticulation system. There have been a few programming and modelling issues arisen during this work and these have now been rectified. Work being undertaken will confirm if an opportunity exists to provide new Pots in specific locations, such as that for the deferred commencement at 26 Straight Street. The modelling work is also being established to assess the more recent development applications before Council.

A break-in to the shipping container that houses the Hat Head Pot Trailer occurred in November. This break-in attempt proved unsuccessful for the thieves, as the Pot Trailer was located elsewhere that evening. It was disappointing that thieves would target such a crucial piece of equipment for the Hat Head village. Without this equipment, the rectification of sewage chokes and blockages within the reticulation system are considerably delayed. It is also more likely that these chokes or blockages may result in surcharging within customers yards or houses. The Pot Trailer has also been a successful tool in significantly reducing

risks of environmental spills in an environmentally sensitive area. The break-in was achieved by cutting through a 15mm steel locking mechanism on the container. The locking mechanism has now been additionally protected.

From late November there have been operational issues with one of the pumps in the Hat Head Sewage Pump Station. One of the pumps that sends sewage from the pump station to the Treatment Plant has had issues with the seals and lobes. Continued use was likely to cause significant damage and it has been effectively removed from service for the peak holiday period. The pump station has 'limped' through and been carefully monitored. When installed, Council was informed these pumps were the largest of their type in the Southern Hemisphere. Rectification is not likely to be achieved solely in-house and investigations are currently underway with the manufacturers.

Sewage Treatment Plant

The replacement of the aeration grids successfully occurred in early November. Recovery of the plant back to 'normal' operation was a slow process as previously reported (DSS13 November 2008). 'Normal' operation was achieved two weeks prior to the holiday period increase in sewage loads (occurs mid December).

The performance of the Sewage Treatment Plant has been closely monitored through the holiday period and areas of concern have been identified. Peak loadings have been sustained not only through the Christmas to New Year period but right through January. As such, a full analysis of the Plant's performance through the holiday period could not be completed prior to the writing of this report. It can be said that capacity issues have arisen through this period. Whilst over a whole day, incoming volumes are within capacity limits, breach of capacity has occurred over particular 4 - 6 hour periods. These capacity breaches have occurred continuously through January on at least 4 days of every week. Effectively in these periods, there has been insufficient capacity in the reaction chamber to cater for both the incoming flows and to continue to treat the sewage already within the process chamber. Various techniques have been trialled in an effort to best cope with these unpredictable loadings with mixed success. It is apparent that additional storage for peak incoming loads is required. A further report will be presented to Council in March following the analysis of the full holiday period. It is intended to present Council with potential options to address the capacity issues in the March Council report.

RECOMMENDATION IMPLICATIONS:

- ***Environmental***

Nil

- ***Social***

Nil

- ***Economic (Financial)***

Nil

- *Policy or Statutory*

Nil

- *Director's Review*

It is apparent that the current treatment chamber is inadequate for the inflows experienced during the holiday peak periods at Hat Head until the plant capacity is increased. An alternative would be to reduce inflows by effective demand management although this approach is more problematic.

RECOMMENDATION:

That a report be presented to Council in March outlining options to rectify the capacity deficiencies at the Hat Head Treatment Plant.

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Bruce Morris
DIRECTOR SHIRE SERVICES