

EPA 05/9206

Essential Services Commission of SA
GPO Box 2605
ADELAIDE SA 5001

Dear Sir/Madam,

RE: SA Water Regulatory Business Proposal 2013

This submission has been prepared by the Environment Protection Authority (EPA) with regard to SA Water's Regulatory Business Proposal 2013. The EPA has reviewed the Business Proposal 2013 and has focused its response on sewage services, specifically the wastewater treatment plants (WWTP) which are licensed by the EPA.

The EPA and SA Water regularly discuss the prioritisation of plant upgrades based on environmental risk assessment. The 2013 proposed projects are initiatives of SA Water based on its own service requirements, with consideration given to sites highlighted by the EPA. While the EPA has not required SA Water to undertake these improvements, it strongly supports the reduction in environmental risks achieved from the proposed projects. If these risks are not addressed the EPA would need to determine if regulatory action may be required.

Proposed infrastructure capital expenditure – direct control sewage services

Murray Bridge WWTP

The EPA supports the proposal to implement a solution to wastewater treatment requirements for Murray Bridge. Decommissioning of the current plant and construction of a new WWTP in a suitable location as a proposed solution, is supported by the EPA to address the following environmental risks of concern;

- Consistent odour complaints from the Murray Bridge plant arise due to the very short separation distances to residents of 30-40m. Short of significant upgrade to the current plant, the impacts of odours on surrounding residents will continue, and possibly escalate given increase in the loads into the plant and residential growth in the surrounding area.
- As well as odour there is also the risk of river bank slumping and lagoon collapse due to geological instability from varying water levels within the River Murray. Towards the end of the drought period (early 2010) cracking was observed in the area between the lagoon and river.
- The failure of the lagoon would have significant environmental consequences, as the treatment lagoon is approximately 8m from the river and any failure would result in around 60ML of effluent entering the river.
- Additionally the pipe from the lagoons to the final disposal point passes under the river, and any geological instability could affect the disposal route for effluent, requiring emergency discharge to areas which would possibly allow effluent to enter the river.

- The risk of failure is linked to factors beyond human control, such as climate, and given the lead times to establish a new plant the risks will be carried through a long period. Relocation of the plant would decouple environmental risk of failure from uncertain climatic events.

Aldinga WWTP

The EPA supports the proposed major upgrade to increase hydraulic and biological treatment capacity (expected to be exceeded in mid-2016) to address population projections identified in the 'The 30 Year Plan for Greater Adelaide'. The proposed upgrade should support ongoing sustainable outcomes as summarised below;

- This plant was constructed with the specific purpose of supplying recycled water for irrigation of local vineyards. The EPA has long held the view this outcome is maintained, and the plant operates as a 100% reuse facility. However to date due to seasonable and irrigation variability, approximately 354ML of treated wastewater has been transferred to the Christies Beach WWTP outfall for marine discharge.
- The Adelaide Coastal Waters Quality Improvement Plan outlines required nutrient and suspended solids load discharge targets to protect this impacted receiving environment, a potential increase in loads from the Aldinga WWTP, is a risk factor for environmental harm and load targets not being achieved.
- The EPA supports proposed further upgrades which achieve an improved environmental outcome, addressing treated wastewater storage capacity and reuse opportunities, to minimise the ongoing need to discharge treated wastewater via the Christies Beach marine outfall.
- The proposed upgrade will be assessed by the EPA through the development approval process. To maintain a net environmental benefit from any proposed upgrade, the EPA may consider the application of an EIP.

Bolivar WWTP asset renewal projects

The proposed asset renewal for the Bolivar Plant is supported as improvements in process will have beneficial environmental outcomes.

Glenelg WWTP asset renewal projects

The Glenelg WWTP has been earmarked for upgrade funding, with mention of improvements to the inlet screens to address odour concerns. This is supported by the EPA as odour units at the boundary exceed recommended levels for odour (generating ongoing odour complaints from residents). Target actions to address the issues should be implemented and the following included in the proposal;

- A focus of the upgrades should also include improvements for air quality from the treatment plant. Areas to target for improvement should include the foul stack and odour mitigation at the inlet screens.
- Odour mitigation should also be coupled with works proposed for the Glenelg Sewerage Pump station, as this is a considerable odour source.

Renewal of Pipe Networks and Overflow Abatement Program

- The EPA has not yet received the capital works program schedule for 2013-14 to 2015-16 as referred to in section 10.3.2 of the SA Water Corporate Overflow Abatement Plan 1 July 2011 – 30 June 2016 as indicated. Without this the EPA is unable to provide comment on the Overflow Abatement Plan and network upgrade priorities. The EPA has requested a copy of the schedule and once this is received network and plant performance and incidents will be considered in assigning priorities for the capital works schedule.
- The EPA would be supportive of the development of an odour management program for sewer ventilation although would like information on how locations to be targeted are determined. In general odour is one of the main causes of complaints to the EPA and we may be able to assist in identifying 'hotspots' to inform priorities within the plan.

For further information on this matter, please contact me on (08) 8463 7813 or keith.baldry@epa.sa.gov.au.

Yours sincerely



Keith Baldry

**DIRECTOR, REGULATION AND COMPLIANCE DIVISION
ENVIRONMENT PROTECTION AUTHORITY**

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