

Appendix D

Woodman Point WWTP Odour Control Improvement Plan

Community Reference Group (CRG) Comments

The following are responses to the issues raised at the Woodman Point CRG meeting on the 6 September 2006, a CRG workshop on odour issues held on 20 September 2006 and a further CRG meeting on 22 November 2006.

6 September 2006

- Ongoing input to the plan by CRG / community.

Response ...

The Water Corporation, through the CRG, will provide the opportunity for the community to have ongoing input to the Odour Improvement Plan as the project progresses from the planning phase through to implementation and commissioning.

- Community workshop to be conducted (include the Coogee Beach Progress Association).

Response...

The Water Corporation has arranged for a workshop to be undertaken on 20 September 2006.

- EPA / DEC process provides for further community input.

Response...

The EPA's assessment and works approval process provides the community with the opportunity to input to the process. The issues identified will be addressed prior to proceeding with project works approval and implementation. To provide more time for community input to the Odour Management Plan, the Water Corporation sought, and was granted, by the Department of Environment and Conservation (DEC), a one-month extension to finalising input. However, to meet its statutory requirements, the Water Corporation must still submit the Odour Improvement Plan to the DEC by 1 October 2006. The Corporation will resubmit the finalised plan to the DEC incorporating any additional community submissions received in December 2006.

- Confirm odour emissions data / targets / timeframe.

Response...

The Water Corporation has reviewed the odour emission data in the SER for the Odour Improvement Plan and where appropriate the document has been changed. The timeframe for the odour upgrade has been set by the plant's DEC Licence. A timeline showing the dates for the delivery of key project components has also been included. The document in draft form was presented to the CRG for further comment at the workshop on 20 September 2006.

Stages 1 and 2 of Odour Improvement Plan are planned to reduce odour emissions by 50 % by the end of October 2008.

- Audit the performance - monitoring before and after installation.

Response...

The Water Corporation has monitored the odour emissions before the upgrade and is committed to further monitoring after Stages 1 and 2 to confirm the planned reduction in odour emissions has been achieved. Progress towards the odour target will be audited every month during design, construction and commissioning, with a comprehensive odour measurement and modelling program planned for 2009/10.

The Water Corporation is required to meet a 50% reduction in odour emissions from the plant, from a level of 297,100 OU/s, within three years. The odour flux of 297,100 OU/s is the best estimate of current emissions based on the detailed and comprehensive odour monitoring program undertaken between March and June 2003.

The considerable knowledge and experience gained by the Water Corporation in undertaking odour sampling and monitoring at Subiaco and Beenyup WWTPs prior to and post the odour control works, and other odour sampling undertaken at various times, demonstrates that there is significant variation in odour emission rates between samples from the same source, and temporally and seasonally. On a daily basis, odour emissions are worst at night, and on a seasonal basis they are worst in summer. Odour complaints have been mostly received during autumn because of the combination of higher odour emissions, and specific wind conditions conducive to the transport of odours.

The EPA's Air Quality and Air Pollution Modelling Guidance Notes (2000) requires that estimates of emissions employed in modelling assessments are realistic and that uncertainty is balanced by conservatism. It is for this reason that the 2003 sampling was undertaken in summer/autumn, and the detailed monitoring program following stage 1 will also be undertaken in summer/autumn.

The post works odour monitoring and modelling program will be similar to that undertaken to verify the performance of the works at Subiaco WWTP and details have been included in the Odour Improvement Plan. The results of the monitoring will be made available to the CRG.

- Work to start as quickly as possible

Response...

The Water Corporation is proceeding as quickly as possible with the preliminary design work associated with the odour control and sludge treatment amplification. This work is due for completion by mid October 2006. This will be followed immediately with the implementation phase, which commences with detailed design, leading to procurement, construction and commissioning.

It should be noted the regulatory and statutory approvals to undertake the work could take up to 12 months. These activities are being progressed in parallel with the design phases.

The odour control program at Woodman Point WWTP is being progressed as a matter of urgency.

- Faster implementation.

Response...

The Water Corporation is the process of appointing an alliance partner to undertake the work at Woodman Point WWTP. The alliance partner is due to start the implementation work in early November 2006. The selection of the alliance partner was based on their ability to deliver the Woodman Point WWTP projects to the proposed timetable.

The works will be delivered as quickly as possible without compromising the operation of the plant, the quality of the work and safety at the site.

- Include detailed activities / timelines.

Response...

The Odour Improvement Plan has been modified to include more detail on activities and timelines.

- It is possible the SBR can be covered quadrant by quadrant by 2009.

Response...

The Water Corporation will not undertake this work in the time suggested. The Corporation's response is detailed in the Odour Improvement Plan Section 10. In the interim period, the Corporation is investigating innovative means of reducing odour emissions from the SBR.

- Show the difference between the SER stage 1 and the new stage 1.

Response...

The scope of the original Odour Control Stage 1 was to reduce the odours by 41 per cent at Woodman Point WWTP and was to be completed in July 2009. This work had an estimated capital expenditure of \$30.4 million (in long-term dollars).

The scope of work for the new Odour Control Stage 1 is now changed to meet the 50% odour reduction requirement and is detailed in the Odour Improvement Plan. This work has an estimated capital expenditure of \$53.5 million and is scheduled for completion by the end of October 2008.

- Appeals committee report to Minister on community consultation to be made available to the workshop.

Response...

A copy of the document was presented at the workshop on 20 September 2006.

- Buffer issues to be resolved more quickly than 2011.

Response...

As stated in the Odour Improvement Plan, the extent of the buffer zone will only become clear following the completion of the odour control works, and further monitoring and odour modelling. This work is scheduled for completion in 2011.

The residual land use conflicts will be addressed by the Water Corporation in cooperation with planning authorities and the remaining landowners. It is planned to initiate additional works at the plant around 2012. This issue is discussed in the Odour Improvement Plan.

- Odour reduction by 1 November 2008 will allow a 500 metre buffer under EPA odour standards.

Response...

The Water Corporation's Odour Improvement Plan and the DEC's Licence condition for Woodman Point WWTP specifies a 50 % reduction in odour emissions to be achieved by October 2008. It is most unlikely that will translate into a reduction in the buffer zone, as can be seen by examining the predicted odour contours (with a 50 % reduction in emissions, the future 5 OU contour will move in to where the 10 OU contour is at present).

20 September 2006

- The CRG expressed an interest in an inspection of the biosolids spreading operations in the shires of Moora and New Norcia.

Response...

The Water Corporation will arrange a site visit as required.

- There was a request for the current/revised revegetation plan for Woodman Point WWTP to be included in the Odour Improvement Plan.

Response...

The revegetation plan is a Ministerial Condition of Appeal of the Bibra Main and Munster 3 Project. This plan will therefore not be included in the Odour Improvement Plan. However, to the extent that vegetation influences odour dispersion, this matter will be considered.

- It was suggested that a newsletter be developed by the Water Corporation to keep the local community informed of activities at the plant and in relation to the Odour Management Plan. There would be a section in the newsletter where the consolidated and agreed view of the CRG would be represented. The newsletter cost will be met by the Water Corporation.

Response...

The Water Corporation will develop a newsletter design and format, which it will present to the CRG for consideration.

- It was requested that odour emissions for the Woodman Point be measured after Stage 1 of the planned odour improvements and that this be complemented by a statistically valid community survey, 'ground truthing' of ambient data and verification of complaint data.

Response...

This is discussed in the Odour Improvement Plan.

- There was a discrepancy between the bar chart on Woodman Point WWTP Odour Control Options and the information presented in Figure 1 of the Odour Management Plan.

Response...

The Water Corporation will reconcile any discrepancies before resubmitting the final Odour Improvement Plan in November 2006.

- There were concerns about the methodologies used in odour measurement at the Woodman Point WWTP. Specifically, that the level of odour emission from the TRF is listed at 4,000 Odour Units in the Department of Environmental Protection report, but is listed at 22,000 Odour Units in the GHD report, which was used in the SER document.

Response ...

The estimate in the GHD report was a preliminary estimate prepared quickly for a workshop evaluation of strategies. The later, and more accurate, estimate was made after a detailed inspection of operations at the TRF. The later estimate was included in the SER and is the basis for calculating the 50 % reduction in emissions.

- A chart/table should be included in the Odour Improvement Plan to show the projected targeted design improvements for stages 1,2 and 3 of the current Odour Improvement

Response ...

A time schedule for Stages 1 and 2 is the Odour Improvement Plan. The schedule for Stage 3 will be developed after the scope of work in that stage is defined.

- The community target for odour emission after Stage 3 of the Odour Upgrade in 2015 was 50,000 Odour Units.

Response...

The Water Corporation notes this request. Planning and design work, including views of technical specialists, is that a level of 80,000 OU/s may be achievable. Therefore a level of 50,000 OU/s is not considered achievable, technically or financially on such a large WWTP.

- A CRG member wants to bring forward the completion of Stage 1 to May 2007.

Response...

The Water Corporation considers that this is not achievable. Further fast tracking of the design and procurement process is not possible.

22 November 2006

(The Woodman Point Wastewater Treatment Plant Section 16(e) report and recommendations of the Environmental Protection Authority (EPA) was published on 20 November 2006.)

- O.I.P. to be reviewed in respect to SER response.

Response ...

The Water Corporation will review the Strategic advice on the proposed buffer for the Woodman Point Wastewater Treatment Plant Section 16(e) report and recommendations of the Environmental Protection Authority (EPA) and where appropriate the OIP will be modified.

- Ideally the buffer to be reduced as the plant becomes more effective/efficient.

Response ...

Following completion of the stage one odour works a review of the long term buffer will be undertaken. The OIP will be modified to include this requirement.

- Review in respect to letter from Cockburn City Council. (Clarity of the buffer zone to residents).

Response ...

The Water Corporation will undertake a review of the letter when it is made available and the OIP will be modified where appropriate.

- CRG point 7 on page 2. Add adjacent odour sensitive premises.

Response ...

The OIP will be modified to include, "adjacent odour sensitive premises" at the end of the dot point.

- CRG prefers odours to be contained within the WWTP site.

Response ...

The OIP sets out the Water Corporation's three stage program of works at Woodman Pt which includes a substantial reduction in the area affected by odour and a review of the buffer zone. Based on experience at Subiaco and Beenyup WWTPs, and observations of conditions at other plants in Australia, the Corporation does not consider that it would be feasible to operate a 240 ML/d plant at Woodman Point with no buffer zone.

The Corporation CRG's preference for odours to be contained within the site boundary is noted. Odour buffers around wastewater treatment plants are considered an integral part of an odour management strategy by the Corporation and EPA. A suitably-sized buffer minimises unavoidable odour impacts on the existing community and protects the interests of future community members.

- CRG to provide a consolidated view in the Odour Improvement Plan.

Response ...

The Water Corporation will append a consolidated view to the OIP when it is made available.

- Agree on a methodology to determine odour impacts including survey methods, modelling procedures and community response.

Response ...

The Water Corporation will consult with the CRG and EPA/DEC to agree an appropriate methodology for the determination of odour impacts. This activity will be undertaken following the completion of the stage one odour control works. The OIP includes this task.

- Review the buffer zone with a view to accommodate the strong community desire to have the buffer zone reduced or even removed completely, following monitoring of the outcome of the odour upgrade.

Response ...

The CRG's preference for odours to be contained within the site boundary is noted. The Water Corporation's odour control program of works at Woodman Pt includes a review of the buffer zone. Odour buffers around wastewater treatment plants are considered an integral part of an odour management strategy by the Corporation and EPA. A suitably-sized buffer minimises unavoidable odour impacts on the existing community and protects the interests of future community members.

- The community view is that after the stage 3 the odour emissions should be 50,000 OU/s or less.

Response ...

As stated in the OIP, the target at the end of stage three is a reduction of 70% in odour emissions which translates to 81,000 OU/s. The CRG's target of 50,000 OU /s or less is noted. The Corporation will review the effectiveness of the odour control program at the completion of each stage to determine the requirement for further work.

- Update Finance on page 8.

Response ...

The financial comments on page 8 of the OIP will be updated.

- Page 7. C.R.G. section 4.2 Terms and Reference.

Response ...

The Terms of Reference will be attached to the OIP at Appendix D

- 3-6 months reporting and update on O.I.P. to C.R.G.

Response ...

The OIP will be modified to include a section on reporting to the CRG. The reporting will be based on a 3-6 month schedule, or as requested by the CRG.

- Future plant upgrades to include appropriate redundancy to handle a single major system failure.

Response ...

Design of the Woodman Pt projects includes a requirement to provide appropriate redundancy including assessment of major system failure risks.

Community Input to the Program Director up to 15 December 2006

There have been four submissions from individual community members on the Odour Improvement Plan to 15 December 2006. The Odour Improvement Plan has been changed in response to these submissions where appropriate.