



MINISTER FOR ENVIRONMENT; WATER

Your Ref: Petition 150
Our Ref: 42-14848

Hon Brian Ellis MLC
Chair
Standing Committee on Environment and Public Affairs
Parliament House
PERTH WA 6000

Dear Mr Ellis

PETITION NO 150 – KWINANA INDUSTRY AIR BUFFER ZONE (MUNSTER)

Thank you for your letter of 17 May 2012 requesting comments in relation to Petition No 150 – Kwinana Industry Air Buffer Zone (Munster) and the associated submissions.

The Department of Environment and Conservation (DEC), the Office of the Environmental Protection Authority (OEPA) and the Water Corporation have provided me with the following advice.

Background to the buffer

In the mid-1990s, the land to the east of the Woodman Point Wastewater Treatment Plant (WWTP) was rezoned from Rural to Urban Deferred to recognise additional uses of this land that were still compatible with a WWTP, but specifically not for future residential development. At the time, the estimated odour impact of the WWTP formed the basis for the Metropolitan Regional Planning Scheme (Regional Scheme) Amendment by defining the eastern edge of the Urban Deferred Zone, nominally a line 750 metres to the east of the plant. The City of Cockburn's local Town Planning Scheme was subsequently made consistent with the purpose of the amendment to the Regional Scheme.

The odour buffer for the Woodman Point WWTP has been a contentious and complex local issue for many years. Responsibility for planning matters and the buffer zone rests with the Department of Planning. As such, consultation with residents about the possible extension of the buffer zone or compensation for affected residents is a matter for that department. However, as a matter of principle, community consultation and engagement in relevant decision making processes is supported.

Over the years, the Water Corporation has kept its residential neighbours, particularly those in the Urban Deferred Zone, well informed of its activities at the Woodman Point WWTP through regular newsletters, advertisements in the local paper, community presentations and also through a long-standing Community Reference Group.

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The principal petitioner, Mrs Robyn O'Brien, lives which is inside the Woodman Point WWTP odour buffer. Mrs O'Brien is probably the closest neighbour to the Woodman Point WWTP. For a number of years, Mrs O'Brien and her husband have been asking for more odour control at the Woodman Point WWTP, the removal of the odour buffer, and a change to the land zoning to allow residential development of their property and other properties within the Urban Deferred Zone. Mrs O'Brien is a former member of the Community Reference Group and since her resignation has been a regular attendee at its meetings as a guest of one of the existing members.

The purpose of a defined buffer is to provide both State and local authorities with a planning tool to help determine future land uses in the area and the compatibility of those land uses. A buffer does not necessarily mean the sterilisation of land, rather that land uses within the buffer need to be compatible with the operation of the Woodman Point WWTP.

The definition and determination of separation distances between industry and sensitive receptors is a policy process, rather than the outcome of a specific scientific process. Technical tools, such as modelling and odour field assessments, may be used to assist this process, however they have significant limitations. These tools also make specific assumptions and approximations and are not definitive measures of separation distances. There is no scientific process for accurately determining the optimal size of a buffer. The technical tools that are available are sensitive to assumptions, especially in regard to estimating odour emission rates. In considering separation distances (buffers), it is also appropriate to adopt the precautionary principle under section 4A.1 of the *Environmental Protection Act 1986* (EP Act).

Appropriate separation distances must consider future increases in the wastewater treatment requirements of a growing population in the region. There is also an onus on the operator to maintain and improve odour management. However, these improvements will be offset, to some degree, by increasing flows produced by the increasing population. There is also a practical and economic limit to odour reduction technology.

Environmental Protection Act licence and odour control

The Woodman Point WWTP is licensed under the EP Act and is regulated as a Category 54 and 61 sewerage and liquid waste facility under the Environmental Protection Regulations 1987. The current licence conditions do not refer to an odour emission limit of five odour units, but there are a number of conditions that stipulate emission limits. A copy of the licence is at Attachment 1.

In 2004, the conditions of the Woodman Point WWTP licence were appealed by various parties. On 8 September 2005, the then Minister for the Environment, as part of the appeal decision (Appeal Number 201 of 2004), requested that the then Department of Environment ensure it reviewed the Woodman Point WWTP's licence once an Odour Improvement Plan (OIP) had been developed and approved by the department, and the Environmental Protection Authority (EPA) had provided its advice to the Minister, under section 16(e) of the EP Act, on odours relating to the plant. The aim of the OIP was to reduce the Woodman Point WWTP's odour emissions by 50 per cent within three years and following this, further reduce odour emissions if feasible or resolve any residual land use conflicts should this not be feasible.

This approach was reinforced by the Minister in 2005 in determining a subsequent appeal against the Woodman Point WWTP's licence conditions (Appeal Number 238 of 2005). The Minister stated that the key role of future licences should be to reflect relevant odour improvement milestones to ensure that odour reduction projects are completed within agreed and reasonable timeframes.

The Minister directed the department to amend the licence requiring the Water Corporation to prepare an odour improvement plan to:

- initially reduce odour emissions, currently (i.e. pre-Stage 1) assessed to be 297,100 odour units per second by at least 50% within three years;
- provide further reductions beyond three years to ultimately achieve an ambient odour level of five odour units (or as otherwise approved by the Director) at the nearest sensitive premises; and
- develop strategies to resolve any residual land use conflicts surrounding the premises in the event that point two cannot be achieved.

The Water Corporation finalised its odour improvement plan in December 2006 in consultation with DEC and the Community Reference Group. The plan outlined the requirements for Stage 1 and 2 odour reduction works, an odour Monitoring and Modelling Program after the completion of Stage 1, and provisions for the likelihood of Stage 3 odour reduction works in the future. The plan included timelines for completion of the works and associated activities. The Water Corporation provided a written commitment during the assessment of the works approval application to revise the plan to address the following points:

- characterisation of low frequency, high impact events; and
- identification and investigation of odour control works to achieve an ultimate ambient odour level of five odour units (1-hr frequency, 99.5 percentile) at the nearest sensitive premises, inclusive of the Urban Deferred Area east of Lake Coogee.

The Water Corporation prepared a Strategic Environmental Review report addressing these issues and submitted it to the EPA. The EPA sought independent advice on the technical accuracy of the odour sampling and modelling described in the Strategic Environmental Review, and on the adequacy of the described approach to odour management, including the proposed odour control infrastructure. EPA Bulletin 1240 of November 2006 contains the EPA's advice and recommendations regarding odour issues at the Woodman Point WWTP (copy at Attachment 2).

The EPA advised that the buffer should be retained until after the Stage 1 odour control measures (to reduce odours by 50 per cent) had been implemented, after which further consideration of the odour impacts and the need for a long-term buffer should occur. This advice has resulted in a belief by some members of the community that the odour buffer would (or must) be reviewed after the Stage 1 odour control works were completed. This position is not supported by the Water Corporation who contend that a review of the buffer should only occur if it were shown that the odour impact had been reduced to well within the existing buffer.

Stage 1 of works aimed at reducing odour emissions by 50 per cent was completed in early 2009. Following completion of the Stage 1 works, an Odour Modelling and

Monitoring (MAM) Report was completed for the Water Corporation by Dr Ian Wallis, an odour expert from Consulting Environmental Engineers, with input from DEC. The MAM Report confirmed that at least a 50 per cent reduction in odour was achieved by these works, thus meeting the Stage 1 odour reduction commitment of the SER.

The Water Corporation formally submitted the MAM Report to DEC to close out the Works Approval for the Stage 1 odour control works at the Woodman Point WWTP. The MAM report has also been sent to the EPA, the Western Australian Planning Commission and the City of Cockburn for their information. As stated by the principal petitioner, DEC considers the odour impacts from the current operations have been reduced significantly since the completion of odour reduction works by the Water Corporation, DEC has not received any complaints regarding odours from the Water Corporation's Woodman Point WWTP in the last 12 months.

Despite the overall reduction in odour, the Water Corporation cannot guarantee that there will not be some odours from the Woodman Point WWTP from time to time. Dr Wallis' research indicates that there will still be potential odour impacts (which would normally result in odour complaints in urban areas elsewhere in Perth) extending to at least the eastern edge of the Urban Deferred Zone to the east of the plant.

The Corporation contends that as the current potential residual odour impact will remain until the next significant upgrade to the Woodman Point WWTP is completed, which is likely to be a number of years away, it is premature to review the size and nature of the buffer at this time. Any amendment of the current Urban Deferred Zone to change it to an Urban Zone would signal to existing or future land owners in this zone that they could expect to experience odour outcomes similar to those experienced in other urban areas. This may very well result in odour conflicts for many years, and possibly indefinitely.

The point raised by Hon Lynn MacLaren MLC that the buffer extension is to "give the operators of the treatment plant leeway to increase the odour emission" is not correct. The operator of the plant is required to abide by the provisions of the Environmental Protection Act to ensure its operations do not cause unreasonable odour emissions from the plant. A buffer does not preclude DEC from taking enforcement action if evidence is obtained that an unreasonable emission has occurred from the Woodman Point WWTP's operations.

The Water Corporation recommends that the current odour buffer is a 'safety net' that should be retained, and that it makes sense that this should form part of the Kwinana Air Quality Buffer, as is the case for the Kwinana WWTP further to the south. As part of any buffer review, the information derived from the MAM report and the upgrades undertaken by the Water Corporation should be used and there should be a requirement for community consultation.

Zoning

The Woodman Point WWTP is a significant community asset that services a large part of Perth's southern metropolitan area. Its relocation would be difficult, and probably economically unviable. Therefore, it is important that the plant has certainty over its future operations, like other large industries. As there is presently a limit to the odour control that can feasibly be achieved at such a large plant that operates continuously 24 hours per day, 365 days per year, there are always likely to be off-site odour impacts.

Therefore, separation of urban areas from the plant via a secure odour buffer is essential. The Kwinana Air Quality Buffer provides this security for both the Woodman Point WWTP and the local community.

Any decision to change the zoning is the responsibility of the Western Australian Planning Commission however, it would be expected that the OEPA and DEC would be consulted by the Department of Planning prior to lifting of the urban deferment.

Thank you for providing me with the opportunity to comment on this petition. I trust this information assists the Committee in this matter.

Yours sincerely

A handwritten signature in black ink that reads "Bill Marmion". The signature is written in a cursive style with a long horizontal stroke at the end.

HON BILL MARMION MLA
MINISTER FOR ENVIRONMENT; WATER

Att

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