

## **Report 99.405**

16 October 2000

File: WGN 910096

[Report 1999.Env99405.TM:mm]

Report to the Environment Committee  
from Tamsin Mitchell, Resource Advisor

### **Update on Odour Issues at Moa Point Wastewater Treatment Plant**

#### **1. Purpose**

To inform the Committee of the outcome of an independent review of odour management at Moa Point wastewater treatment plant.

#### **2. Background**

Resource consents for the Moa Point wastewater treatment plant are held by Wellington City Council (WCC), although the plant was designed, built and is now operated by Anglian Water International (NZ) Ltd (AWI).

The discharge to air permit requires that there be *no discernible odour* from operation of the plant at or beyond the boundary as designated in the Wellington City District Plan. The District Plan designation also has the same odour condition. The designation is regulated by WCC's Environmental Control Business Unit (ECBU).

In early 1998, during commissioning of the treatment plant, there was a serious odour problem affecting nearby residents. AWI had expected some odour for up to six weeks while the plant was being commissioned. However, the plant was damaged during this period by a heavy loading of tradewaste and the necessary repair work resulted in continuing odour for some months. AWI considered that odour complaints would cease once the repairs were completed and the plant fully commissioned. Accordingly, WRC, ECBU and AWI agreed on a deadline of 15 May 1998 for compliance with the no discernible odour condition.

However, once "steady-state" operation was reached there were still complaints about odour from nearby residents and golfers. On 29 May 1998 WRC issued an abatement notice against WCC and AWI requiring compliance with no discernible odour by 13 July 1998, which allowed sufficient time for biological process to fully mature. AWI appealed the abatement notice and proposed a programme of works culminating in the covering of the clarifiers by 15 March 1999 if odour could not be eliminated through other measures. At this time all parties considered that the three clarifiers on site were the primary source of odour triggering complaints.

As previous deadlines for resolving the odour problems had not been met by AWI, WRC and ECBU lodged a joint application for an enforcement order against both WCC (as the consent holder) and AWI requiring them to take all steps necessary to cease discharges of discernible odours beyond the boundary by March 1999.

The Environment Court decided to adjourn the enforcement order application hearing until after 15 March 1999 – should it be necessary.

Now that the clarifiers are covered, the level of on-site odour is markedly improved. However, the main stack which discharges treated air from the odour scrubber system still produces residual chemical chlorine-type odours. After the clarifiers were covered and until 30 June 1999 we received 35 odour complaints from the Strathmore and Seatoun areas. During this period three complaints of discernible odour were confirmed on the golf course by WRC officers. The source of odour complaints from as far a field as Seatoun was never established, but it is very unlikely that those complaints were triggered by the Moa Point plant.

Since the beginning of July 1999 to the date of this report there have been eight complaints. Only one of these odour incidents was confirmed and was triggered by the pumping station rather than the treatment plant. The pumping station falls outside the scope of the WCC designation and does not have the same “no discernible odour” condition attached to its resource consent.

### **3. Independent Review of Odour Issues**

WRC’s Consents Management Department engaged air quality specialist, Roger Cudmore of Aurora Environmental (Christchurch) and community consultation expert, Tony Dons (Dunedin) to produce a preliminary report recommending an approach to resolving the odour issues. During the review, undertaken in June 1999, Roger and Tony met with a number of people associated with the plant, including complainants; Miramar Golf Course management; the technical advisor to the Community Liaison Group; WCC staff; AWI staff; and WRC staff.

Following those meetings and their onsite investigations, Messrs Dons and Cudmore produced a report with their recommendations on resolving the problem.

### **4. Findings and Recommendations of the Report**

The main findings and recommendations are:

- Discharges from main plant stack and pumping station stack are impacting on the southern greens of the Miramar Golf Course. The degree of impact needs to be quantified, possibly through a survey of golfers. The survey could also be extended to residents within Strathmore Park and Moa Point Road area.
- Sewage odours, noticeable at times on Moa Point Road, are most likely from WCC sewerage system. However, a thorough investigation of the sewerage system is required to confirm this.

- Intermittent sewage-type odours from a localised area at the treatment plant may be occurring because the air extraction system is not optimised. Although, the degree of off-site impact is likely to be low, further technical investigation is required.
- Potential odour mitigation measures are considered to be: modifying the stack; modifying the chemical odour scrubber; removing the requirement to meet a consent limit for hydrogen sulphide in the discharge permit; and installing a biofilter.
- If additional odour mitigation is required, an options assessment report should be prepared and presented to stakeholders for discussion.
- The Report's findings should be presented to the Community Liaison Group. The CLC should be consulted about any potential changes to plant operations, including consents and designations.

## 5. **Progress to Date**

Following the production of a draft report, WRC staff discussed its findings and recommendations with the various parties who took part in the review process. Some of the report's recommendations have been taken up or alternative measures implemented. For instance, AWI have carried out modifications to the plant to improve dispersion of the discharge and optimise the odour scrubber system and air extraction system. Wellington City Council have carried out works on Moa Point public sewer system and old outfall to eliminate potential known sources of odour.

It appears that discernible odours from the plant are now limited to chemical musty odours from the treatment plant stack or pumping station experienced on the golf course in certain weather conditions. AWI are considering commissioning an independent survey of golfers to assess the impact of odour on the golf course. Consents Management staff will look at undertaking odour monitoring on the golf course over the summer months.

## 6. **Communication**

The report prepared by Aurora Environmental and Tony Dons will be made available to the Community Liaison Group (established under the WCC's land use designation) at their next meeting in December 1999.

**7. Recommendation**

*That the report be received and its contents noted.*

Report prepared by:

Approved for submission:

TAMSIN MITCHELL  
Resource Advisor

ROB FORLONG  
Manager, Consents Management

JANE BRADBURY  
Divisional Manager, Environment