



caring about you & your environment

Report 02.616

30 September 2002

File: ENV/6/1/5

[Report 2002.Env02616.HM:mm]

Report to Environment Committee
from Paula Hammond and Howard Markland

Rationalising our Response Approach for Odour Complaints

1. Purpose

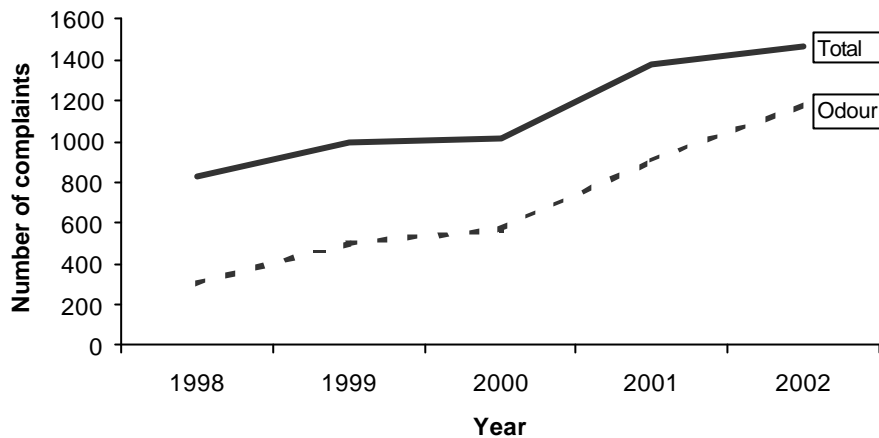
To seek the Committee's support regarding a new approach to managing odour related complaints.

2. Background

Greater Wellington, the Regional Council provides a 24-hour pollution incident response service, and has a policy of responding to all incoming complaints. The Consents Management Department responds to complaints regarding consented activities during office hours. The Resource Investigations Department responds to complaints regarding unconsented activities, and complaints about consented activities when they occur outside normal office hours.

Over the past number of years the number of complaints made to the Council regarding both consented and unconsented activities has increased substantially, especially for odour (see Figure 1). The increase in complaints has led to diversion of resources away from other core work areas, thus making pro-active approaches more difficult to implement.

The strategic direction of the Council is to become more proactive in its approach, shifting from pollution response to pollution prevention. This change has implications for the way we currently respond to odour complaints, which is discussed in the rest of this paper.

Figure 1 Complaint Trends in Recent Years

3. **Our Existing Odour Management Approach**

Currently, upon receipt of a complaint, an officer responds by visiting the alleged source to establish whether the odour is offensive or objectionable beyond the site boundary. The response also involves meeting or communication with the complainant to obtain details about the alleged nuisance, and to inform them of the outcome of our investigation. Contact is also usually made with someone from the alleged source, to inform them of our activities and to gather information about probable odour emissions.

In addition to complaint response, the Council also undertakes limited organised monitoring of key sites, and liaises with the parties responsible for confirmed odour incidents to agree methods to avoid, remedy or mitigate subsequent odour emissions. Other initiatives undertaken by the Council include running workshops with affected populations, issuing odour diaries and instituting formal enforcement action against people responsible for confirmed persistent odour sources.

4. **Problems with the Existing Approach**

Resolving odour complaints is notoriously problematic due to the following:

- Nuisance odour may only last for a short time, and so requires a very rapid response by investigators.
- Odour complaints often occur outside normal office hours (when people wake up or go home).
- The likelihood of odour nuisance is dependent upon many variables that describe the emission (contaminant, rate of emission), its dispersion (efflux velocity, air temperature, wind speed, wind direction) and sensitivity of the receiving population (time of day, individual sensitivity).
- Measurement of odour is qualitative (cannot be reliably quantified), which makes it difficult to demonstrate that it is offensive or objectionable.

- It is difficult to identify the source of odours from multiple-source sites (such as the Carey's Gully Complex).

Over the last few years, the Council has received a growing number of odour complaints, over 90% of which can be attributed to the following sources:

- Asphalt Surfaces New Zealand Limited (formerly MKL Asphalt Limited)
- Anglian Water International Dewatering Plant (Carey's Gully Complex)
- ChemWaste
- Hutt Valley Wastewater Treatment Plant
- Living Earth compost plant (Carey's Gully Complex)
- Moa Point (Wastewater Treatment Plant & Pump Station)
- Nuplex Environmental
- NZ Fish Products
- Southern Landfill (Carey's Gully Complex)
- Taylor Preston

Despite notable improvements in odour emissions from all the above sites over recent years, the number of odour complaints has continued to increase, and represents an increasing proportion of all complaints received each year. Appendix 1 provides a brief synopsis of the progress made towards reducing odour at the sites listed above.

The Regional Council has reviewed its present approach to odour complaint response from key odour sources, and concluded the following:

- It is expected that the number of odour complaints will again increase over the 2002/2003 period.
- The number of complaints attributed to key industrial sources has continued to rise, irrespective of clear improvements in odour emissions from those sites. This continued growth in complaint numbers does not necessarily indicate a deterioration in environmental quality, but rather that:
 1. The public is becoming more aware of the Council's pollution hotline;
 2. New developments are bringing industrial and residential land uses into close proximity in urban areas;
 3. Growing residential land use in rural areas is giving residents greater exposure to agricultural odours; and
 4. There is a growing intolerance to odours amongst the general public and 'sensitised' individuals. In some instances, the Council has been asked to apply a 'zero odour' criteria at site boundaries.
- Each of the principal industrial odour sources in the Region has undertaken a substantial amount of work in recent times, in an attempt to reduce their odour emissions (see Appendix 1). Although this has not eliminated odour emissions, substantial reductions have been achieved.
- The Council has insufficient resources to continue to respond to all incoming odour complaints, without neglecting other responsibilities.

- When incoming complaints are evaluated in terms of the severity, extent, duration and frequency of their environmental impact, it is possible to rank them in order of significance (see Appendix 2). This exercise reveals that odour from the key industrial sources rank as follows:
 - Carey’s Gully Complex – 19th
 - Taylor Preston – 28th
 - Seaview area – 47th
 - Asphalt Surfaces NZ Limited – 48th

Despite these relatively low rankings, odour response is currently a major operational cost due to the large number of incoming complaints, and our current policy of responding to each one.

- Odour is typically a *local* pollution issue, and is unlikely that any single source would become a *regional* environmental issue.
- Council staff and several industries are becoming frustrated with the inability to satisfy public demands concerning odour, despite having worked hard and invested significant amounts of money and time to achieve tangible improvements in recent years.

Given the above, the Council has concluded that the present odour response strategy is not effective, not sustainable, and does not provide the Region’s ratepayers with value for money.

5. Proposals for a New Approach

5.1 Rationalisation of Complaint Response Protocols

The Council has conducted a detailed analysis of odour complaints received, in order to gain a better understanding of the relationship between incoming complaints and the probability of detecting an offensive or objectionable odour. This involved an evaluation of the seasonal and diurnal distribution of complaints received for the principal industrial odour sources. It also took into consideration the effects of wind speed, wind direction and temperature.

The analysis revealed that responding to *individual* complaints was not the most cost-effective strategy, due to the low probability of detecting an offensive or objectionable odour. Instead, a more targeted approach could be adopted, whereby each of the principal industrial sources is assigned a specific ‘response threshold’, which enables the Council to determine the conditions under which responding is more likely to result in the identification of an offensive or objectionable odour. This approach can reduce the response burden by up to 50% across the Region, resulting in a substantial saving with no significant deterioration in terms of outcomes.

The principal benefit of adopting this approach is that staff and finances can then be re-directed toward pro-active monitoring of odour producing sites, as well as the Take Charge programme and some of the more ‘significant’ issues identified in Appendix 2.

Clearly the principal dis-benefit is that certain sectors of the public will perceive a reduced level of service, as the Council will not necessarily be seen to be responding to their complaint. However, our past experience has been that this is likely to be acceptable if we demonstrate that other steps are being taken to address their complaint, such as pro-active monitoring or process evaluations.

5.2 Proactive Monitoring Strategies

In conjunction with rationalising our response to complaints, we will also undertake a significant amount of proactive monitoring at the sites identified in section 4 of this report. The objective of this monitoring is to establish:

- The impact of odour upon the surrounding area;
- The effect of infrastructure and operational improvements upon odour emissions; and
- What odour issues, if any, still need to be addressed.

Historical data from each site has been assessed to determine the most appropriate time of day to undertake pro-active monitoring, including:

- Complaint frequency & distribution;
- Weather conditions including wind direction, temperature; and
- Operating practices and production regimes.

Proactive monitoring strategies will follow a four week cycle - three weeks of monitoring followed by a week review. During the review week we will assess whether we have set our monitoring times correctly, whether we are still receiving complaints, and whether there is still an odour problem.

Proactive monitoring will continue at a site until we have enough information to determine whether, in the opinion of investigating officers, there is an on-going odour problem at each site. Potentially, the impacts of this work could result in the Wellington Regional Council informing communities that we do not consider there is an odour issue that warrants our continued response and investment of resources.

5.3 Process Evaluation Strategies

Greater Wellington, the Regional Council has previously had some success requiring industries to conduct detailed odour evaluations of their operations, to identify and assess odour sources associated with their process or infrastructure. We propose to maintain this approach, either by using Regional Council auditors or requiring industries to arrange for their own investigations and present the findings to us.

6. Communications

Letters will be sent to both complainants and the site operators informing them where we propose to implement a proactive monitoring strategy. Of course, we will not inform them of the exact times and dates that monitoring will take place. Information provided to the complainants will explain that we are unlikely to respond to individual

complaints, although their complainant will be logged and the information used in conjunction with our proactive monitoring.

We will also investigate whether a media release is appropriate with respect to sites where we are conducting odour investigations.

7. **Recommendations**

It is recommended that the Committee:

- (1) *receives the report;*
- (2) *notes the contents; and*
- (3) *support the change in approach.*

Report prepared by:

Approved for submission:

HOWARD MARKLAND
Pollution Control Officer

JOHN SHERRIFF
Manager, Resource Investigations

PAULA HAMMOND
Manager, Consents Management

JANE BRADBURY
Divisional Manager, Environment

Attachment 1: Principal Industrial Odour Sources

Attachment 2: Prioritisation of Environmental Incidents