

# Trends in odour

Interim review report on the  
Regional Air Quality Plan for Taranaki

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## Executive summary

- This report is one of a series of background reports prepared to assist the Taranaki Regional Council in its interim review of the *Regional Air Quality Plan for Taranaki*.
- The report examines trends in odour and identifies issues to emerge since the Plan became operative in 1997.
- Odour incidents make up 81% of all air quality incidents reported to the Council and approximately 32% of all complaints received by the Council since 1991/92.
- Odour complaints have increased eight-fold since 1991 (when the Council assumed responsibility for air quality). This is not believed to indicate more odour incidents occurring but rather a community more likely to report incidents and becoming less tolerant of its impacts.
- The Council has progressively become tougher on the enforcement of odour discharges.
- The most problematic sites or activities, based upon number of unauthorised odour incidents (in order of significance), are meat works and rendering plants, poultry farms, fertilisers, municipal landfills and oxidation ponds, major industrial discharges and hydrocarbon activities, piggeries, and spray painting.
- Meat works and rendering plants are responsible for 41% of all odour complaints with a single site, Taranaki By-Products being responsible for 92% of all odour complaints relating to this industry.
- Almost all major problematic sites or activities relating to odour hold air discharge consents (the exception being some spray painters). Through the consents process, matters such as location, buffer distances and the adoption of remedial measures are considered.
- Other more minor problematic sites or activities relating to odour, whether permitted activities or consented, are monitored annually during the Minor Industry Monitoring Round.
- Steady progress has been made in addressing long-standing odour issues at a number of sites. Major successes in the last decade include
  - Upgrading the blood drier heat and emissions control at Richmond's meatworks (Hawera);
  - Relocation of waste disposal at Colson Road landfill;
  - Moving and upgrading the septic tank infiltration system at the Onaero motor camp;
  - Eliminating odour from cooling towers by changing to water treatment chemicals at Methanex (Motunui);
  - Improving process control and reducing ammonia incidents offsite at Ballance (formerly Petrochem);
  - Cessation of manufacture of 2,4,5-T by Dow AgroSciences in 1997; and
  - Virtual elimination in paint odour complaints in relation to TBS Coatings over the last three years.

- The most problematic sites in relation to odour are generally a planning problem whereby, in the past, territorial authorities under the now repealed Town and Country Planning Act have allowed residential areas or 'lifestyle blocks' to locate close to significant odour sources eg, Taranaki By-Products, poultry and piggery farms (or *vice versa*, have allowed significant odour sources to locate too close to residential areas).
- Under the now repealed Clean Air Act many odour sources (eg, poultry farms, piggeries and spray painters) were not regulated and are now effectively being addressed for the first time. Also under the Clean Air Act, complaints had to be directed to the Department of Health and travel distances meant responsive monitoring and enforcement often did not occur.
- A protocol has been developed by the Council and the New Plymouth, Stratford and South Taranaki district councils to resolve confusion and clarify the roles and responsibilities of regional and district councils in relation to odour.
- The Council recognises differing perceptions as to the 'offensiveness' of odour. Staff are trained and calibrated to make their determinations as to what is offensive or objectionable to a normal person, neither insensitive nor oversensitised
- In conclusion, standards in relation to odour have changed and the public is less tolerant and more likely to report odour problems eg, what was acceptable in 1991 is now no longer acceptable. The Council has, through the rules of the Plan, the resource consents process and subsequent monitoring and enforcement, responded to increased community expectations and there have been significant improvements in emission control associated with key industry groups and at key sites. The Council will continue to work with industry and key sites but it is noted that sites with many complainants are now rare and odour complaints are generally associated with isolated incidents involving fewer complainants. While odour continues to be a significant issue, nothing in the report has indicated deficiencies in the Plan or the Resource Management Act.

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# 1. Introduction

## 1.1 Purpose of report

The purpose of this report is to:

- (a) Examine trends in odour relating to consenting, pollution incidents and enforcement action;
- (b) Identify any environmental or management issues to emerge in the region since the adoption of the *Regional Air Quality Plan for Taranaki*; and
- (c) On the basis of the above, identify whether changes to Council procedure or the Plan are necessary.

## 1.2 Background

The effects of odour are generally localised but can be a significant nuisance in some localities, adjacent to some industries or land use practices. In such cases, people's health and well being may be adversely affected.

Pursuant to the Resource Management Act 1991, the Taranaki Regional Council ('the Council') has addressed air discharges, including odour emissions, in its *Regional Air Quality Plan* (operative as of 7 April 1997). This Plan includes the rule regime relevant to all industries and trade premises<sup>1</sup> in the Taranaki region that give rise to odour emissions. Industries and trade premises include chemical and fertiliser manufacturing plants, petrochemical processing plants and light industry (eg, spray painters) and factory farming such as piggeries and poultry farms. Of note is that other agricultural land uses and practices can, on occasion, give rise to odour emissions eg, oxidation ponds and the spreading of fertilisers and chicken litter. These activities where they are having adverse effects can also be addressed under section 17 of the Resource Management Act<sup>2</sup>.

The *Regional Air Quality Plan for Taranaki* ('the Plan') has now been operative for five years and it is timely to undertake an interim review of the Plan to:

- (a) To ensure the Plan remains relevant, lawful and appropriate and is achieving its purpose; and
- (b) On the basis of the above, determine whether changes to the Plan are required now as a matter of urgency, rather than at the 10-year review of the Plan.

This report is one of a series of background reports to be considered by the Council in relation to the interim review of the Plan. The report focuses on trends relating to the consenting and enforcement of odour emission sources, particularly the larger

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<sup>1</sup> 'Industrial or trade premises' is defined in the Resource Management Act to mean any premises that is used to process material from receipt of raw material to dispatch, and for any waste-management purpose or composting of organic material. It also includes premises that discharge contaminants, but does not include production land.

<sup>2</sup> Under section 17 of the Act, every person has a duty to avoid, remedy, or mitigate any adverse effect on the environment arising from an activity by that person.

sources. The report further identifies environmental or management issues relating to odour that have emerged since the adoption of the Plan. Based upon the trends and issues to emerge, the Council, through this report, can assess whether changes to Council procedure or the Plan are necessary.

### **1.3 Structure**

The report is divided into five sections, as follows:

Section 1 introduces the purpose, background and structure of the report.

Section 2 sets out the historical and current statutory and management frameworks relating to odour. This section further explains the functions and responsibilities of regional and district councils and the framework for achieving integrated management under the Resource Management Act.

Section 3 outlines trends in odour relating to consenting, pollution incidents and enforcement action.

Section 4 outlines environmental and management issues to emerge in relation to odour since the Council assumed air quality responsibilities. These issues relate to historical planning problems, activities being addressed for the first time, duplication of statutory responsibilities, recognition of differing perceptions and sensitivities to odour and monitoring.

Section 5 presents a conclusion summarising overall progress in addressing odour problems in the Taranaki region including whether changes to Council procedure or the Plan in relation to odour are necessary.

## 2. Statutory framework

This section briefly describes the historical and current statutory and management frameworks relating to odour emissions.

### 2.1 Pre – Resource Management Act (Clean Air Act)

Prior to 1991, when Resource Management Act was enacted (the Act under which odour is currently addressed, refer section 2.2 below), the Department of Health and territorial local authorities were responsible for administering odour issues under the now repealed Clean Air Act 1972.

Under the Clear Air Act, the definition of ‘air pollutant’<sup>3</sup> included the terms ‘odorous’ and ‘offensive’, but the focus was on specific compounds such as odorous sulphur and nitrogen compounds standards that were identified in the First Schedule of the Act.

Under the Clean Air Act, standards for air pollutants were prescribed and an occupier of industrial or trade premises was not permitted to emit air pollutants in excess of the prescribed standards of concentration, or rate. All air discharge processes identified in the Second Schedule of the Act were required to be licensed:

- **Class A** premises were licensed by the Department of Health in Wellington. Class A licenses were generally required for large industrial or trade premises that had large combustion processes (heat release exceeding 50 MW), processed animal and plant matter (included fellmongery processes), processed metals, industrial wood pulp or particle board, or carbonised or gasified natural gas, petroleum or oil.  
Class A licenses had technically and scientifically based conditions specifying maximum concentration and rate of air pollutant emissions.
- **Class B** premises were licensed by the local territorial authority. Class B licenses were generally required for small to medium industrial or trade premises that flared or incinerated trade waste or refuse (and where heat release exceeded 5 MW), blended, packaged or handled air polluting substances, processed animal or plant matter, or involved mineral or dry abrasive processes, landfills or composting.
- **Class C** premises were also licensed by the local territorial authority, subject to that authority developing bylaws. Class C licenses were only issued by one of the then 17 local authority in Taranaki that developed the necessary bylaws (ie, the North Taranaki District Council). These involved small industrial or trade premises that processed animal or plant matter (eg, fish and chip shops), involved otherwise lawful air pollution emissions (eg, paint shops, drycleaners), wet abrasive blasting, composting – excluding silage.

Under the Clean Air Act, only 26 Class A, B and C premises were licensed. Because 17 of the 18 local authorities in Taranaki did not have bylaws, many of the odorous

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<sup>3</sup> The Clean Air Act defined ‘air pollutant’ to mean “...anything of harmful, odorous, or offensive character, in such a form that it can be carried in the atmosphere, and in particular, but without prejudice to the generality of the preceding words, includes smoke and any gases, fumes, mists, or dusts, containing any substance specified in the First Schedule of the Act.”

sources that the Council subsequently had to deal with had not been licensed, for example piggeries, poultry farms and spray painters.

## 2.2 Post – Resource Management Act

Following the enactment of the Resource Management Act in 1991, the Council became responsible for the management of odour emissions in the Taranaki region<sup>4</sup>.

Under section 15(1)(c) of the Resource Management Act “...no person may discharge any contaminant from any industrial or trade premises into air unless the discharge is expressly allowed by a rule in a regional plan, and in any relevant proposed regional plan, a resource consent, or regulations”.

The development of Council policy pertaining to odour commenced shortly after the enactment of the Resource Management Act.

In 1992, the Council prepared an internal working paper as part of the process for developing its *Regional Policy Statement for Taranaki*. The working paper noted that ‘fresh air’ is generally viewed as a fundamental right and that unpleasant or offensive odours could be very invasive and could significantly impact on people’s quality of life. The working paper noted that odour nuisance complaints comprised a large proportion of public complaints received by the Council and identified the need for the Council to address air discharge processes other than those identified in the Second Schedule of the Clean Air Act, including agricultural discharges.

In 1994, the Council adopted the *Regional Policy Statement for Taranaki*, which amongst other things, identified in its methods of implementation that the Council would prepare guidelines addressing odour emissions and would prepare a regional plan addressing the discharge of contaminants to air including odour emissions.

In 1997, the Council adopted the Plan – the first of four regional plans to be adopted by Council and was the first fully operative air plan in New Zealand. The Plan was prepared pursuant to section 64 and the First Schedule of the Resource Management Act. The purpose of the Plan is to assist the Council to carry out its functions under the Act to promote the sustainable management of the air resource of the Taranaki region.

In relation to odour, Policy 1.2 of the Plan applies:

*“...any adverse effects on the discharge to air of odorous contaminants shall be avoided, remedied or mitigated by ensuring that, (to the fullest extent practicable), any such discharges of contaminants to air do not cause odours that are offensive or objectionable”.*

Policy 1.2 recognises that adverse effects from odour emissions are a significant issue and measures should be adopted to avoid, remedy or mitigate the release of ‘offensive’ or ‘objectionable’ odours. It further recognises that that it is not possible to completely avoid all detectable odours. In the explanation for that policy, it is noted

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<sup>4</sup> Under section 30(1)(f) of the Resource Management Act, regional councils are responsible for the control of all discharges of contaminants into air (including odour) and for managing the adverse effects of such discharges on the environment, including people. District councils retain some responsibilities pertaining to odour, but these are restricted to ‘nuisance’ effects that are addressed under the Health Act 1956.

that what is offensive or objectionable depends on the frequency of exposure, the intensity of odorous substances, the duration of exposure, the nature of the odour and the sensitivity of the adjacent environment to the odour.

Under the Plan emissions of odour from industrial and trade premises, hydrocarbon processing facilities, commercial and retail premises, abrasive blasting facilities or units, pig farming operations, poultry operations, solid waste disposal, discharge of agrichemicals and burning are controlled through standards, terms and conditions included in regional rules. In most cases, the rules require that the air discharge not result in offensive or objectionable odour at or beyond the property boundary. Further conditions may apply depending upon the activity.

In conjunction with the development of the *Regional Policy Statement for Taranaki* and the Plan, the Council has developed codes of practice and good management guides on avoiding or minimising the effects of odour emissions. These codes and guides, amongst other things, address poultry farms, piggeries, the use of agrichemicals, and industrial process chimney height.



### 3. Consents, pollution incidents and enforcement action

#### 3.1 Overview

As of 30 November 2001, a total of 232 air discharge permits were current in the Taranaki<sup>5</sup>. On average (excluding 1997/98) approximately 11 air discharge permits are processed each year. In 1997/98, the year following the Plan becoming operative, 55 air discharge permits were granted – over one-third of permits granted since 1991. Most of the 55 air discharge permits were for poultry farms and piggeries for which the key issue is odour. These were effectively being licensed for the first time.

Of note is that since the Plan becoming operative, the proportion of air discharge permits non-notified has increased significantly due to the setting of standards and conditions in regional rules that effectively address off-site odour issues. In 1991, 100% of all air discharge permit applications were notified. As consenting systems and processes were improved, the proportion of permits non-notified increased from zero to 30% in the year immediately preceding the Plan becoming operative (ie, 1995/96). However, since then the proportion of permits non-notified has further increased – in 1999/2000 100% of air discharge permits were non-notified before dipping slightly to 91% in 2000/01. Through environmental performance conditions set on resource consents, the Council tends to specify a ‘best practicable option’ approach to control technology, and to set a receiving environment standard based on not allowing odours at the property boundary to be ‘offensive’ or ‘objectionable’.

Odour incidents make up 81% of all air quality incidents reported to the Council and approximately 32% of all complaints received by the Council since 1991/92.<sup>6</sup>

Since 1991, when the Council took over the management of air quality, the total number of unauthorised odour incidents has increased eight-fold (refer Figure 1).

Notwithstanding the increase in unauthorised odour incidents from 1991, the increase is not believed to indicate more incidents but rather the community becoming more likely to report odour incidents and less tolerant of its impacts, particularly where long standing issues are concerned.

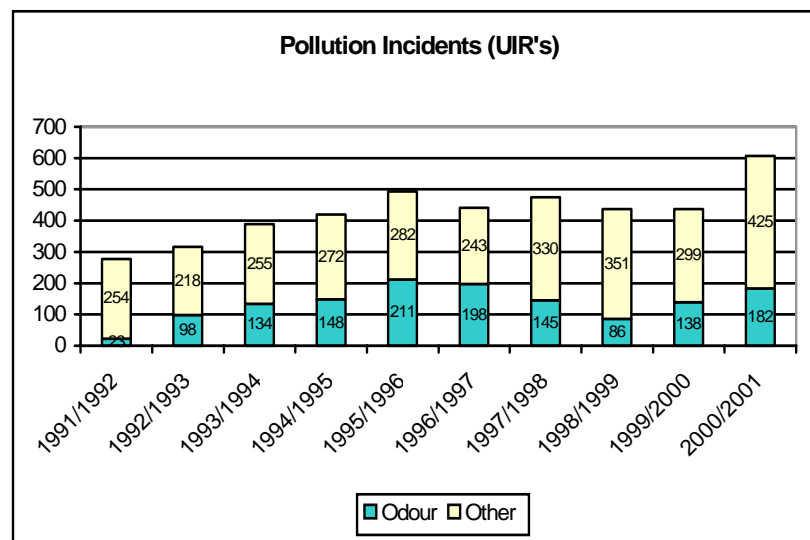
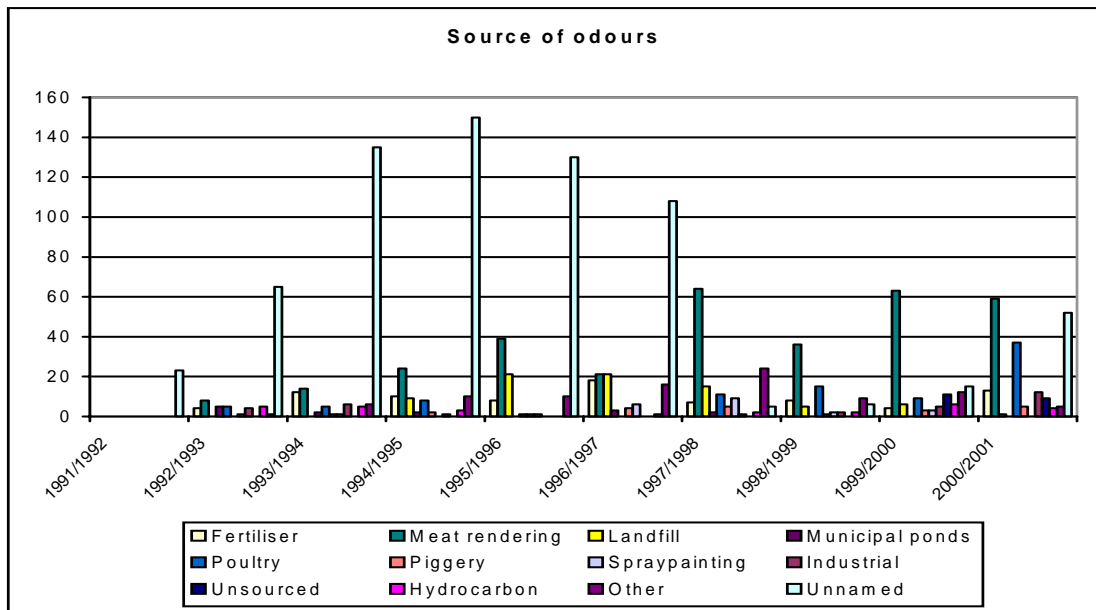


Figure 1: Total pollution and odour incidents over time

<sup>5</sup> As per computer figure maintained on the Council database R2d2.

<sup>6</sup> All public complaints received by the Council, and breaches of discharge permit conditions notified by the permit holder or discovered by Council officers are recorded on the Unauthorised Incidents Register.

Since 1991 the major sources of identified<sup>7</sup> odour incidents have been meat works and rendering plants (41%), poultry farming (12%), fertiliser applications (11%) and municipal landfills and oxidation ponds (11%). However, industrial air discharges (4%), hydrocarbon activities (4%), piggeries (3%), and spray painting (3%) have also been significant sources of odour emissions (refer Figure 2 below). It is noted, however, that environmental performance differs markedly from site to site – three sites (Taranaki By-Products, the Stratford landfill, and the application of stickwater in south Taranaki) represent 2% of consent holders and more than 44% of all air complaints.



**Figure 2:** Sources of odour incidents over time

The Council uses a mix of consent conditions, subsequent monitoring and enforcement procedures to deal with odour problems, as with any other environmental effect. Formal enforcement is applied in accordance with the Council's standing policies and protocols, and has been successful in obtaining the successful resolution for a number of significant odour problems.

As indicated in Table 1 below, the Council is now increasingly looking to use enforcement provisions such as infringement notices and prosecution action to address objectionable odour emissions. In relation to enforcement, the Council has moved from a transition phase of assisting industry in the early 1990s to come to grips with new statutes and rules to a phase where industry should now know what the rules are and community's expectations with respect to odour. On average, the Council serves, on a per annum basis, approximately two to three abatement notices<sup>8</sup> in relation to unauthorised odour incidents. In 2000/01, four abatement notices were issued for odour incidents (an increase from two abatement notices in 1999/2000 for

<sup>7</sup> Forty-seven percent of all odour complaints between 1991 and 2001 were unsourced, ie Council investigations could not confirm or attribute the odour source to any one particular site or operation.

<sup>8</sup> An abatement notice is a low level enforcement procedure that is essentially a tool from an enforcement officer to require a person to cease, prohibit or take positive action to comply with the Act, a rule in a plan or a resource consent.

odour). These were issued to two poultry operators, one piggery operator, and one spray painter and sought the following action:

- Submit a plan as per resource consent conditions (poultry operator);
- Apply for a resource consent (piggery operator); and
- Undertake maintenance to minimise odour emissions (spray painter and poultry operator).

In relation to punitive action, in 2000/01 (the first year it began using infringement notices) the Council issued three infringement notices for unauthorised odour incidents involving a poultry farm, a composting operation (worm farm) and the Petrochem site. None of the notices were appealed.

Two prosecutions have occurred in the last two years for objectionable odour emissions. A meat rendering plant was successfully prosecuted during 1999/2000 for odour caused by processing off-specification material. The Company was fined \$3,500 plus costs. In 2000/2001 the Council also successfully prosecuted the owner of a property where stickwater was spread. The owner was fined \$2,000 plus costs.

**Table 1 Enforcement action for odour over time**

	1991/ 92	1992/9 3	1993/ 94	1994/ 95	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 2000	2000/ 01
No. of unauthorised odour incidents	21	98	134	148	211	198	145	86	138	182
No. of abatement notices	0	2	5	1	**	**	3	1	2	4
No. of infringement notices*	0	0	0	0	0	0	0	0	0	3
No. of prosecutions	0	0	0	0	0	0	0	0	1	1

\* Infringement notices used for the first time in 2000/01.

\*\* No Council records for abatement notices issued in 1995/96 and 1996/97.

Sections 3.2 to 3.9 below outline trends and issues relating to the consenting and enforcement of odour emissions by the most significant odour sources in this region – these being, meat and by-product processing plants, poultry farms, fertiliser processing and application, municipal landfills and sewerage treatment systems, major industrial sites and hydrocarbon activities, piggeries, spraypainting and worm farming.

## **3.2 Meat and by-product processing plants**

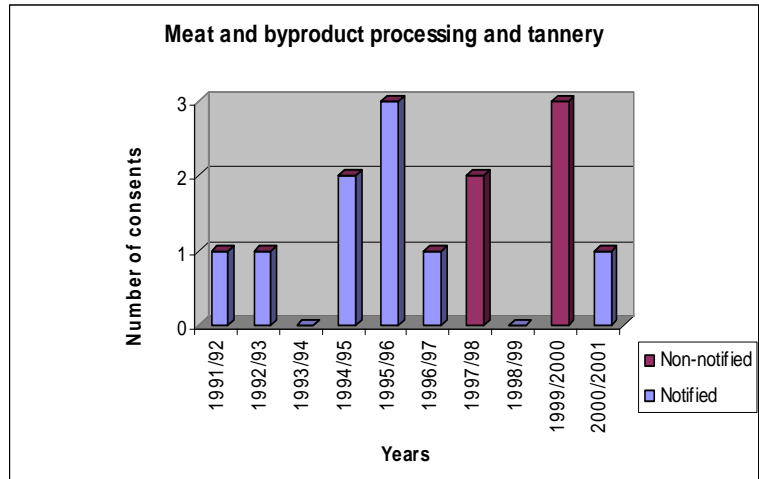
### **3.2.1 Resource consents**

All meat and by-product processing plants in Taranaki are required to obtain air discharge permits due to the odorous nature of the industry. This industry includes a wide variety of activities such as Taranaki By-Products (rendering), Tegel Foods (poultry abattoir), Egmont Tanneries (leather goods), Riverland (abattoir), Berridge Pet Food, Graeme Lowe Protein (rendering), Taranaki Abattoir (abattoir and rendering), Richmond (Hawera and Waitotara) (abattoir), and Manawatu Food and Technology (meat processing).

Because of the historical odour problems associated with the meat and by-product processing industry, most air discharge permit applications were publicly notified

(refer Figure 3)<sup>9</sup>.

On three of the seven notified air discharge permit applications, no submissions were made following public notification. Because odour was not raised as an issue during the consent process, only one of the three consents has a condition requiring that air discharges not give rise to offensive or obnoxious or objectionable odour at or beyond the site boundaries. The two consents with no odour condition have a condition that notes that the consent does not license emissions arising from any fellmongery, tanning or rendering processes. In addition to those conditions, all three consents have a condition requiring the consent holder to notify the Council if any alternations are to be made to the plant that will substantially change the nature of air pollutants.



**Figure 3:** Number of meat and by-product processing industry air discharge permits

The notified process for the other four seven notified air discharge permit applications, did identify significant public concerns relating to odour emissions. With respect to these public concerns, Egmont Tanneries in particular was the subject to a large number of submitters with some vigorous concerns when the air discharge permit was renewed in 1994. However, since the granting of that permit there have been virtually no complaints – one or none each year.

In relation to non-notified air discharge permit applications the Council obtained the written approval to the consent conditions from all potentially affected parties prior to granting the consents. In some cases Council granted these consents for a short duration only after having regard to:

- Whether there were any outstanding areas of local concern over odorous emissions;
- Whether new abatement systems were proposed that were not yet in place or their performance was unproven;
- The applicant's 'track record' in relation to odour incidents; or
- Whether the applicant was required to make other significant changes within a short period.

### 3.2.2 Pollution incidents and enforcement

The meat and by-product processing industry has been responsible for approximately 41% of all unauthorised odour incidents reported to the Council since 1991. The Council, on average, receives 35 complaints per annum for odour

<sup>9</sup> The data in Figure 3 does include repeated applications for renewals for a single consent.

emissions from the meat and by-product processing industry.

The single largest source of unauthorised odour incidents relating to the meat and by-product processing industry (and indeed for all odour complaints in Taranaki), is Taranaki By-Products located just outside Okaiawa. Taranaki By-Products is responsible for 92% of all odour complaints relating to this industry (refer Figure 4).

The number of unauthorised odour incidents reported to the Council in relation to Taranaki By-Products has increased over time. The number of incidents reported peaked in 1999/2000 when 15 complainants reported 63 incidents. The largest number of complainants in relation to odour emissions from Taranaki By-Products was 23 in 1995/96. Since the 1995/96 period (when the air discharge consent was renewed and added mitigation measures adopted) the number of complainants dropped to a low of eight in 1996/97. However, 56 incidents involving 14 complainants were reported in 2000/2001.

Notwithstanding the still high number of unauthorised odour incidents reported in relation to Taranaki By-Products, it is fair to say that the level of odour reducing equipment at the site is much higher than when the Council took over air quality management in 1991. The fundamental issue associated with the Company is that the plant is poorly located in terms of movement of odour towards residents.

Of note as a success story in the meat and by-product industry, is the cessation of odour complaints since 1996 involving Richmond's meatworks at Hawera. This is attributed to the upgrading the blood drier heat and emissions control on-site.

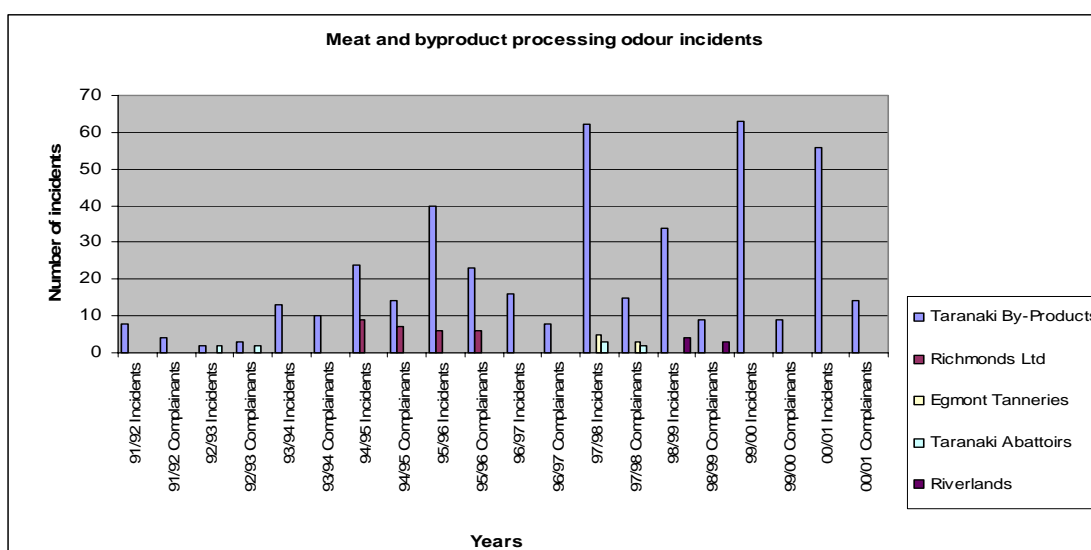


Figure 4: Number of meat and by-product plant odour incidents and complainants

In summary, the meat and by-product processing industry has, over the last decade, gone through a period of huge upheaval with rationalisation etc. This, amongst other things, has led to the closure of plants that have historically been a problem in relation to odour emissions. Other plants have upgraded emissions control. While meatwork wastes will continue to result in occasional and intermittent odour problems, the only site of real concern is Taranaki By-Products (and even then that company has significantly invested in upgrading its emission control).

### 3.3 Poultry farms

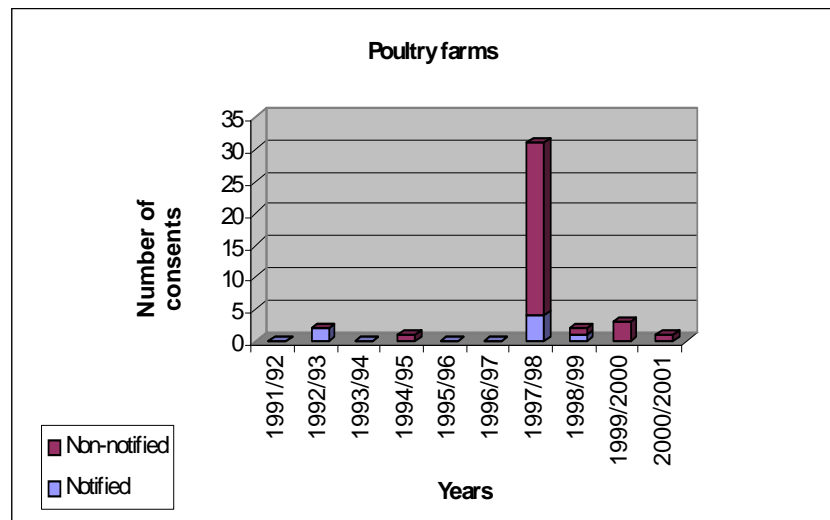
#### 3.3.1 Resource consents

Taranaki has a significant poultry industry. Taranaki is the major poultry meat producing region in New Zealand involving all aspects of the industry from breeding and growing to production and distribution. Operations are concentrated in north Taranaki with the major processing facility at Bell Block.

There are 47 poultry farms in the Taranaki region, of which 36 have resource consents for air discharges (poultry farms with less than 30,000 birds are a permitted activity). Prior to the enactment of the Resource Management Act in 1991, no poultry farms were licensed for air discharges.

In the first years of the Resource Management Act, transition provisions under section 418 of the Act applied. These transition provisions gave short-term 'existing use' protection to a number of existing air emission sources, including unlicensed poultry farms. During this transitional period, the Council worked closely with the poultry industry to develop agreed codes of practice, the technical standards of which were incorporated into the rules of the Plan and/or into discharge permits.

As noted in Figure 5, the vast majority of discharge permits pertaining to the poultry industry were processed in 1997/98. This coincided with the development of the Plan and the codes of practice, as noted above. In 1999/2000, with the closure of the Tegel operations at Te Horo near Levin and their shift to north Taranaki and Auckland, the local poultry industry underwent significant expansion. Three new poultry farms were established and consented. The location of the new poultry farms were sited so as to avoid any dust and odour issues and this allowed the farms to be consented as non-notified.



**Figure 5:** Number of poultry farm air discharge permits

Three new poultry farms were established and consented. The location of the new poultry farms were sited so as to avoid any dust and odour issues and this allowed the farms to be consented as non-notified.

Figure 5 shows the number of discharge permits issued for poultry farms, both notified and non-notified. Applications that were publicly notified were those that were in close proximity to residential housing (do not comply with buffer requirements), or had a history of complaints regarding odour (neighbours did not provide their approval for non-notification).

For three of the notified discharge permits the permits were only issued for a short term due to the potential for neighbours to be regularly adversely affected by odour (expiry date – 1 June 2003). This sent a clear message to all parties, that the Council is not accepting the situation as it currently stands, on a long-term basis. It gives the shed owner a practicable period to evaluate options and to put steps in place to

address the situation, while neighbours realise that they are not expected to have to tolerate a prevailing situation 'forever'. In most cases, the pre-hearing process conducted by the Council has defused a sense of antagonism or polarisation between the poultry shed owner and neighbours.

Poultry farms that complied with buffer requirements regarding distance to nearest off-site dwelling or had obtained approval from property owners within the buffer zones, were processed as non-notified (a much quicker and less costly process for the applicant).

Resource consents, depending upon individual circumstances, may impose a broad range of conditions to address odour emissions from a poultry farm operation, such as requiring the consent holder to:

- Ensure that ammoniacal<sup>10</sup> or typical 'chicken farm' odours do not become offensive beyond the site boundary;
- Undertake the 'best practicable option' approach during farming operations;
- Minimise the amount of odour emitted during chicken production;
- Reduce the effect of odour on neighbouring properties, particularly if the farm is located close to residential housing (ie, do not comply with buffer requirements) or do not have the agreement of neighbours; and/or
- Review and report on any technological advances in poultry shed odour that might improve or minimise discharges.

Conditions can also be attached to prevent the consent holder from increasing the size of the poultry farm without a further resource consent application and public process. In some cases, the message has been given to the shed owner that any expansion proposal would be unlikely to be acceptable to the Council, because of increased odour. Some conditions may include an exemption from odour performance criteria for when birds and/or litter is being removed from the sheds (every 10 – 12 weeks, for one or two days), as abnormal odour may occur and there is currently no realistic technology to avoid odour under such circumstances.

### **3.3.2 Pollution incidents and enforcement**

The poultry farm industry has been responsible for approximately 12% of all unauthorised odour incidents reported to the Council since 1991. The Council receives, on average, nine odour complaints per annum in relation to poultry farms (refer Figure 6).

During the 1995-1997 period, in anticipation of and leading through to adoption of the Plan, all poultry farms were consented in compliance with agreed codes of practice. This has resulted in a high and consistent level of environmental management being achieved. Most problems associated with odour incidents and poultry farms is a result of poor historical planning whereby residential properties have been built in close proximity to already existing farms.

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<sup>10</sup> Poultry farm emissions can contain nitrogenous compounds (such as ammonia and amines) which have a characteristic sharp odour. It should be noted that this smell is not always unacceptable. The presence of ammonia in some household cleaners is considered a positive selling point, as 'proof' of their cleaning ability.

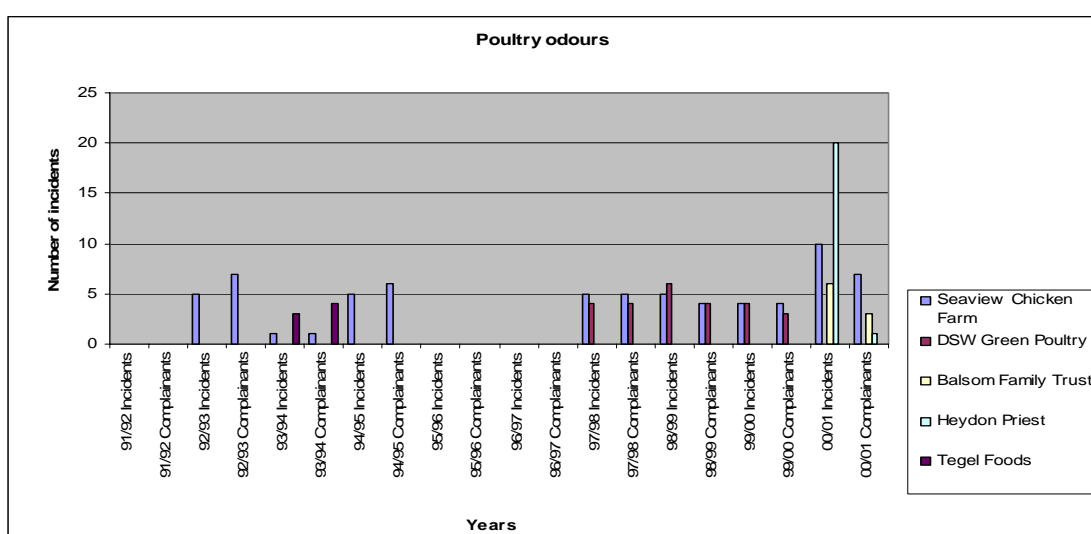
The single largest source of unauthorised odour incidents relating to the poultry industry is Seaview Chicken Farm, on Smeaton Road in Bell Block (44 complaints since 1991). Seaview Chicken Farm was established prior to housing subdivision in the area but subsequent subdivision has led to the farm being within recommended buffer distances to residential housing. In the near future, however, the farm is to be closed with two new sites being constructed approximately 10 kilometres outside New Plymouth and with proper buffer distances separating them from their neighbours.

DSW Green poultry farm, on the outskirts of Inglewood, is the second largest source of unauthorised odour incidents relating to the poultry industry (22 complaint, however, of note no complaints were received in 2000/01). Again the issue is one of close proximity to residential housing.

The Balsom Family Trust operated a poultry farm at Brixton.<sup>11</sup> Although Figure 6 indicates that unauthorised odour incidents have only been received in 2000/01 it should be noted that there were earlier complaints, against the previous owner (Stadden Holdings). A single complainant lives immediately across the road, and purchased the house long after the poultry farm was established. The Council has indicated to all parties that further expansion of the farm is unlikely to be allowed.

Twenty unauthorised odour incidents were reported in 2000/2001 from a single complainant regarding odour from the poultry farm owned by Heydon Priest Poultry Limited near Egmont Village. At the end of 1999, the previous owner of the complainant's property gave approval allowing a substantial expansion of the poultry farm, from 22,000 birds to 120,000 birds but shortly after, sold the property. No odour complaints were received from the previous property owner. The complainant's property is approximately 50 metres from the poultry farm boundary. The Council's preferred buffer distance for a farm of this size is 400 metres.

Tegel Foods were responsible for three unauthorised odour incidents reported by four complainants in 1993/94. However, since that time no further complaints have been received and it appears that odour issues have been addressed.



**Figure 6:** Number of poultry odour incidents and complainants

<sup>11</sup> Established since 1965, it was formerly operated as Stadden Rise, by Stadden Holdings. On 26 June 2001 the farm was transferred to Mr Appert.

Despite massive growth in the poultry industry over the last five years, there has been considerable progress in addressing odour issues. Of the five properties for which the Council has received odour complaints since 1991, Seaview Chicken Farm is about to construct new farms, DSW Green Poultry and Tegal Foods appear to have addressed their problems while the remaining two (Balsom Family Trust and Heydon Priest Holdings) are subject to a single complainant that arrived after the establishment of the poultry farms.

### 3.4 Fertiliser processing and application

#### 3.4.1 Resource consents

The processing and spreading of fertiliser is a permitted activity under the Plan, subject to satisfactory environmental performance including no offensive odour. Where the processing and spreading of fertiliser can not comply with standards and conditions, a resource consent is required.

#### 3.4.2 Pollution incidents and enforcement

The processing, storage and application of fertiliser has been responsible for approximately 11% of all unauthorised odour incidents reported to the Council since 1991. The Council receives, on average, eight odour complaints per annum in relation to fertiliser. Four sources of fertiliser odour complaints have been identified (refer Figure 7).

Prior to 1997, most fertiliser incidents were associated with Farmers Fertiliser's sulphuric acid plant and fertiliser reactor den in Fitzroy. Despite Council and company efforts to develop and upgrade pollution control, problems continued to be experienced up to the plant's closure in 1997. The site is currently used as a fertiliser storage and distribution centre without any odour problems.

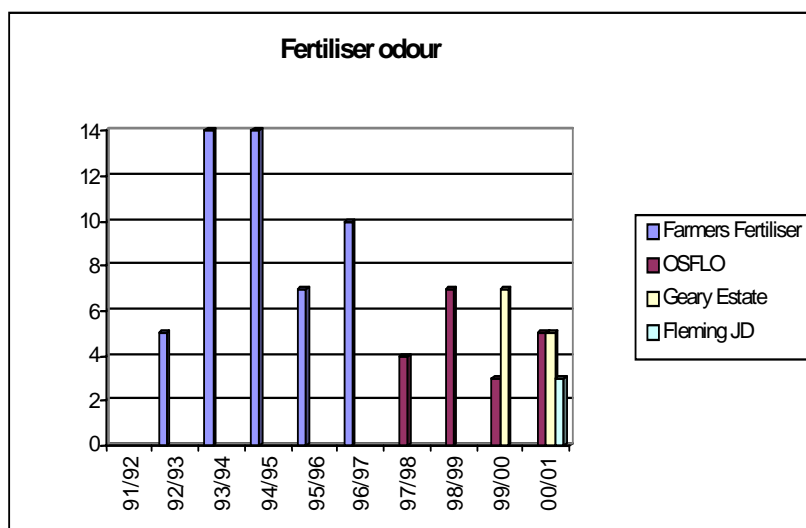


Figure 7: Number of fertiliser odour incidents

Since 1997, most fertiliser incidents are now associated with Osflo and the storage of chicken litter, prior to its application as a fertiliser. An earlier storage site proved unsuitable because of odour emissions. To address the problem, an alternative site was found. Furthermore, Osflo were required to obtain an air discharge permit (given the operation could not comply with the permitted activity rules in the Plan). Odour complaints are still received in relation to Osflo due in part to the growth of

the poultry industry in Taranaki and the greater volumes of litter. Council maintains ongoing dialogue with the company, and a review of their resource consent is anticipated.

Two other sources of unauthorised odour incidents relating to fertiliser have been reported in recent times. One (Fleming JD), involving the spread of poultry fertiliser, resulted in an infringement notice, while the second (the Geary estate) involved the inappropriate application of stickwater (stickwater is a by-product of the rendering process that has been registered as a branded fertiliser). This case was successfully prosecuted.

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Farmers Fertiliser, which was the largest source of unauthorised odour incidents involving fertiliser processing and application is now closed. Osflo, which has been a regular source of regular odour pollution incidents in the last four years, has been required to get a resource consent. The Council has also taken appropriate enforcement action against the two other sources of unauthorised odour incidents. The Council accepts that waste based fertilisers will occasionally be a problem on application, but expects such effects to be minimal and short-term. What should not occur is problems associated with the manufacturing and storage of fertiliser.

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### **3.5 Municipal landfills and sewerage treatment systems**

#### **3.5.1 Resource consents**

All municipal landfills and sewerage treatment systems are consented for air discharges. Prior to the enactment of the Resource Management Act in 1991, no municipal landfills or sewerage treatment systems were licensed for air discharges.

In the first years of the Resource Management Act, transition provisions under section 418 of the Act applied. These transition provisions gave short-term 'existing use' protection (until 1994) to a number of existing air emission sources, including unlicensed premises used for the storage, transfer, treatment or disposal of waste materials or other waste-management purposes, or for composting organic material.

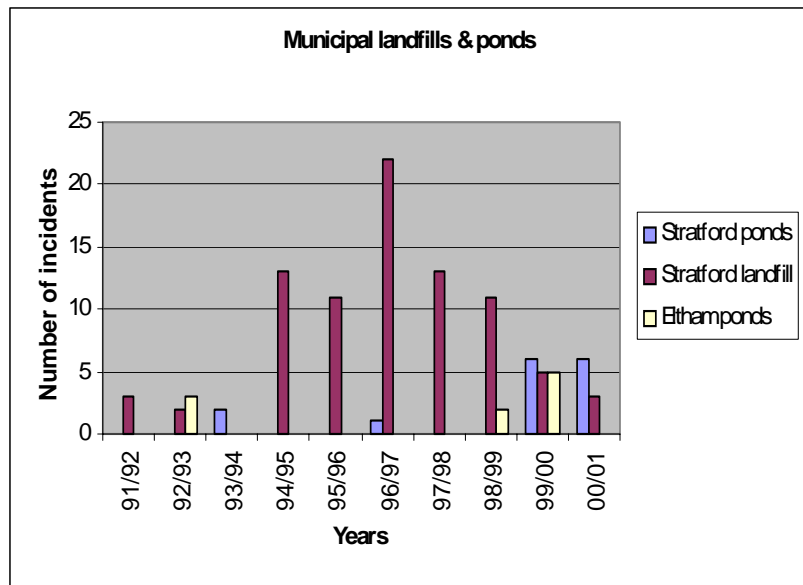
The processing of air discharge permits for municipal landfills and sewerage systems peaked in 1994/95 (when the section 418 transition provisions expired). Sixty-five percent of air discharge permit applications relating to municipal landfills and sewerage systems were non-notified.

#### **3.5.2 Pollution incidents and enforcement**

Municipal landfills and sewerage treatment systems have been responsible for approximately 11% of all unauthorised odour incidents reported to the Council since 1991. The Council receives, on average, eight odour complaints per annum in relation to unpleasant odours arising from these sites (refer Figure 8). This is a general problem faced by landfills, and is often exacerbated by unfortunate siting, for example near to residential areas. Landfills differ from many industrial sources of complaints, in that they are visited by the public regularly and opposition to them is frequently high, emotive and well publicised.

The Colson Road landfill outside New Plymouth use to generate a high level of odour complaints in the early 1990's. These complaints were related to the disposal

of wastes into an area near the northern boundary that was closer to residents and the expansion of the landfill in 1994. The number of unauthorised odour incidents peaked at 12 in 1995/96 (with only one complaint being substantiated by Council staff). Since then, the adoption of added mitigation measures has resulted in only one unauthorised odour incident and it appears that odour problems associated with the site have been resolved. These measures included the movement of waste disposal to the rear of the site and in early 2002 it is planned to dispose waste in a new valley.



**Figure 8:** Number of municipal landfill/oxidation pond odour incidents

The Stratford landfill and oxidation ponds, located adjacent to one another, are the single largest source of odour complaints relating to municipal landfills and sewerage treatment systems. Almost all complaints were lodged by one complainant, who purchased a house located within 50 metres of the landfill (Council staff consider a reasonable buffer distance from a landfill should be 250-300 metres). The Stratford District Council has upgraded its management of the landfill, negotiated through two consent processes (including one hearing) and the number of complaints has subsequently declined. The landfill will close in the summer of 2002, while the future of the ponds will be evaluated in a consent renewal process the following year.

In 1998/99 and 1999/2000 the Council received on-going complaints relating to odour emissions from the Eltham Wastewater Treatment Plant. Resolution to odour issues associated with this plant is being worked through. Through the consenting process the Council is requiring the South Taranaki District Council to adopt short-term remedial measures and implement a stringent programme requiring defined progress to be made on odour issues by specified deadlines.

In two to three years the Council anticipates most odour problems involving municipal landfills and sewerage treatment systems to be resolved. Problems involving the Colson Road landfill outside New Plymouth are largely addressed and, by the time Council receives this report, the Stratford landfill (the largest source of odour pollution incidents involving municipal landfills and sewerage treatment) will also be closed. Through the adoption of added remedial measures at the Eltham and Stratford oxidation ponds it is also expected that problems associated with these ponds will effectively be addressed within two to three years.

## 3.6 Major industrial sites and hydrocarbon activities

### 3.6.1 Resource consents

There are a number of major industrial sites that are also generally considered odorous by nature and are addressed through the resource consenting process. These industries include Fonterra, New Zealand Synthetics Fuels, Methanex, Balance (formerly Petrochem) and Dow AgroSciences. Hydrocarbon exploration activities can also be major odorous sources.

All the aforementioned industries have air discharge permits. Through the resource consents process, steady progress has been made in addressing any odour issues, eg eliminating odour from cooling towers by changing to water treatment chemicals at Methanex (Motunui), improving process control and reducing ammonia incidents offsite at Balance and the cessation of manufacture of 2,4,5-T by Dow AgroSciences.

Discharges to air from petroleum and natural gas processing may be permitted subject to a number of standards that require the discharge not to be noxious, dangerous, offensive or objectionable (including odour) at or beyond the boundary of the property. Where they can not meet those standards, they are required to obtain a resource consent (in 1998/99, 50% of all air discharge permits granted were for hydrocarbon exploration activities).

### 3.6.2 Pollution incidents and enforcement

Major industrial sites and hydrocarbon industries have been responsible for approximately 8% of all unauthorised odour incidents reported to the Council since 1991. The Council receives, on average, six odour complaints per annum in relation to such sites.

As indicated in Figure 9, most unauthorised odour incidents associated with any one major industrial site were isolated incidents (with the exception of a small number of incidents involving Ballance and hydrocarbon exploration sites). Of note is that the sudden surge in complaints relating to Dow AgroSciences in 2001

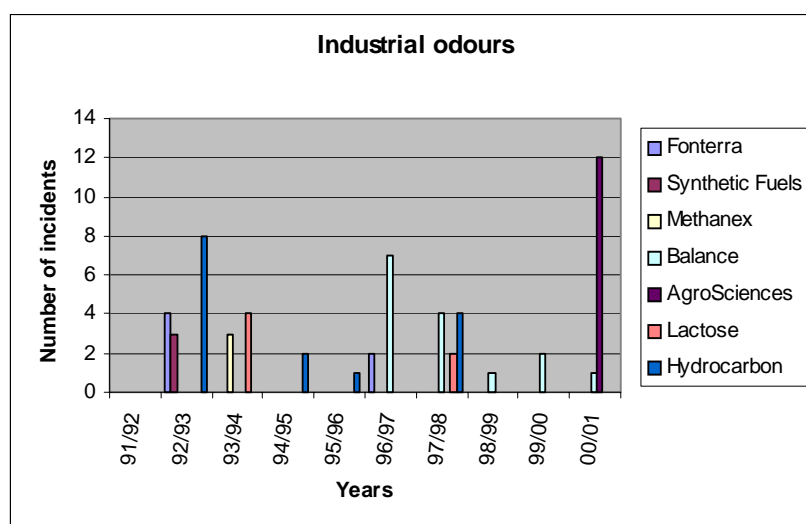


Figure 9: Number of major industrial site odour incidents

after seven years of no complaints. This is attributable not to a sudden adoption of bad practices (as there has been no change in their operation) but to public concerns and media attention on dioxins that were raised in 2001.

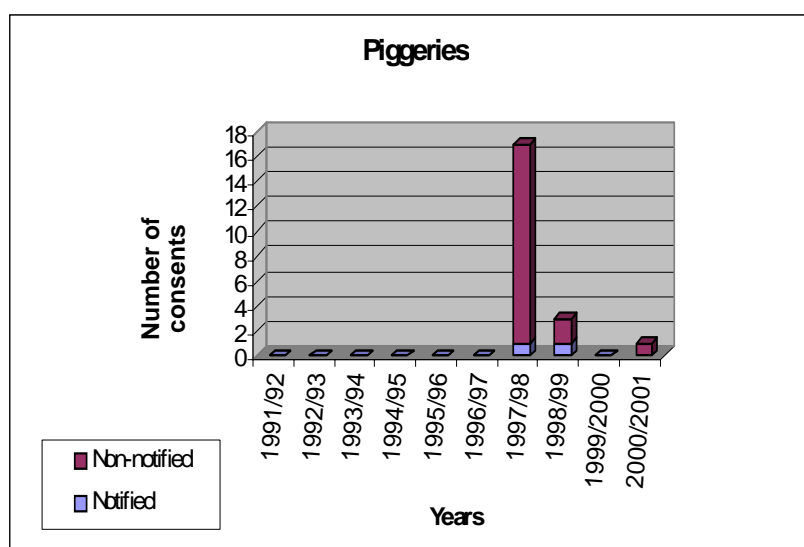
There are no discernible trends involving major industrial sites and hydrocarbon activities. Most unauthorised incidents associated with any one major industrial site have been one-off isolated incidents that were immediately addressed at the time.

### 3.7 Piggery farms

#### 3.7.1 Resource consents

There are 22 piggeries licensed to discharge to air in the Taranaki region. Most piggeries obtained their discharge permit in 1997/98, when the Plan became operative. Prior to the Plan becoming operative, no piggeries were licensed for air discharges.

As noted in Figure 10, the vast majority of discharge permit applications pertaining to piggeries were non-notified. All non-notified discharge permits complied with guideline buffer distances and have a standard condition that offensive or objectionable odour must not occur beyond the boundary of the site. Two discharge permit applications had to be notified due to their close proximity to dwelling houses. Special conditions were included:



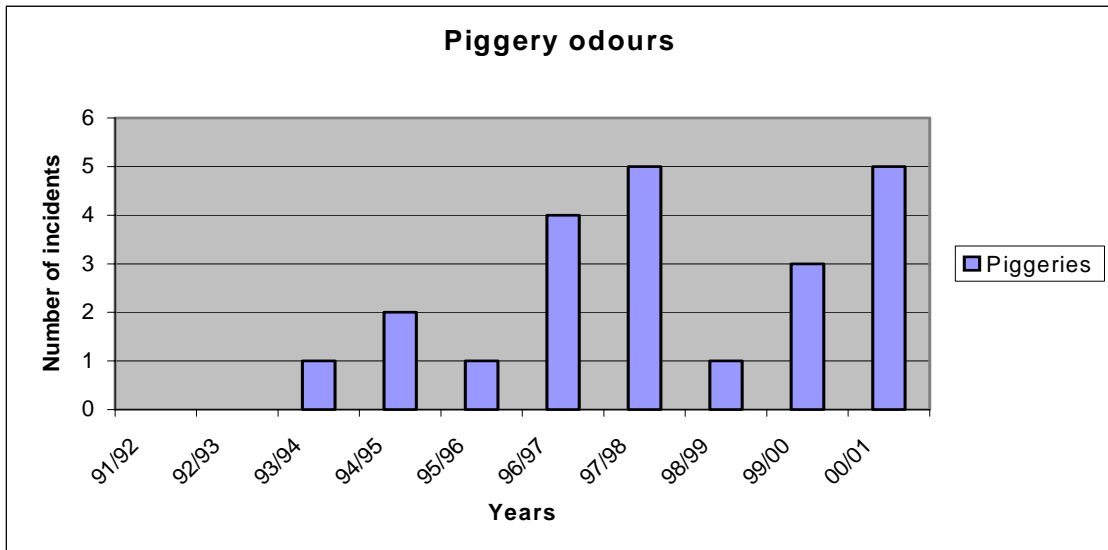
**Figure 10:** Number of piggery air discharge permits

Two discharge permit applications had to be notified due to their close proximity to dwelling houses. Special conditions were included:

- In one case, submitters agreed to a special condition which required the piggery not to give rise to odours at or beyond the boundary save for odours associated with the land application of sludges and effluent from oxidation ponds for a limited period of time;
- In the other case, because dwellinghouses are adjacent and it is not technically possible to avoid odours beyond the property boundary, special conditions were imposed allowing or forbidding certain activities eg, no movement of solids after 10.00 am, Monday to Friday; no effluent spraying on weekends or public holidays etc.

#### 3.7.2 Pollution incidents and enforcement

The piggery industry has been responsible for only 3% of all unauthorised odour incidents reported to the Council since 1991. The Council receives, on average, only two to three odour complaints per annum in relation to piggery farms (refer Figure 11).



**Figure 11:** Number of piggery odour incidents

The piggery industry is not a large source of odour pollution incidents (on average, two to three odour complaints per annum. Since the Plan became operative all piggeries have been licensed. Twenty of the 22 piggeries comply with guideline buffer distances with the other two piggeries having special conditions on their resource consent relating to odour.

### 3.8 Spray painters

#### 3.8.1 Resource consents

Spray painting is a permitted activity under the Plan, unless, amongst other things, it results in offensive or objectionable odours at the property boundary. Some spray painters are, however, required to obtain air discharge permits as they undertake abrasive blasting activities (which is a consented activity).

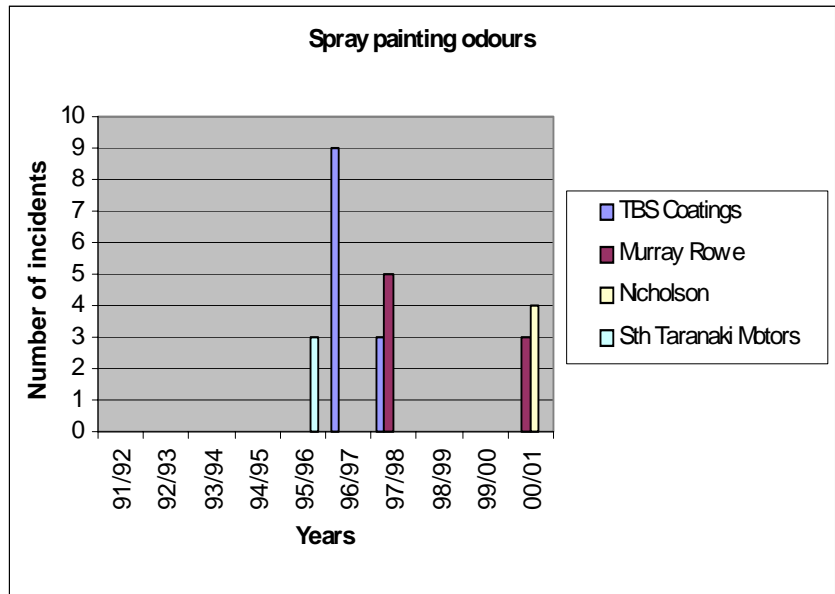
Early air discharge permits for abrasive blasting companies did not include conditions that specifically referred to odour. The permits did however have conditions requiring best practicable options to be undertaken to minimise environmental effects. Given that several abrasive blasters now also conduct spray painting operations on their property, the Council now imposes consent conditions stating that air discharges do not give rise to any offensive, objectionable or toxic levels of odour at or beyond the boundary of the property.

#### 3.8.2 Pollution incidents and enforcement

The first recorded complaint received by the Council concerning spray-painting odours occurred in 1995/96. Since that time, the Council receives, on average, five odour complaints per annum. This represents approximately 3% of all public odour complaints received by the Council since 1991.

The number of unauthorised odour incidents reported to the Council concerning paint shops peaked at nine in 1996/97 and has subsequently declined since (refer Figure 12).

Paint odours from four spray painting companies have been responsible for all the complaints. For TBS Coatings and South Taranaki Motors, odour problems were a pre-existing situation whereby previous district council involvement had not resolved the situation. However, odour issues pertaining to South Taranaki Motors



**Figure 12:** Number of spray painting odour incidents

and TBS Coatings in recent years appear to have been resolved based upon the absence of complaints received in the last few years.

For a time, odour issues from spray painting appeared to have been effectively addressed with no unauthorised odour incidents being reported between 1997/98 and 1999/2000. However, in 2000/01 there was a sudden spate of complaints involving two companies – Murray Rowe and Nicholson Car Painters. Complaints involving these two companies started when neighbouring houses changed owners (eg. a mother staying home with pre-school children moving into a house previously occupied by a working couple away from the house when fumes from a paint shop were being emitted).

In response to this sudden spate of complaints, the Council undertook an indepth study<sup>12</sup> into air emissions from spray painting operations, including identifying and evaluating the best industry practices.

The report shows that in most cases a properly sited, equipped, and operated facility will operate without adverse offsite effects. However, a poorly sited or managed operation can be expected to cause offensive or objectionable odours in the proximity. The report concluded that it was appropriate to control such activities through the Plan.

A code of practice has subsequently been written by the Council, and distributed to all paint shops. The Council has also worked very closely with particular shops and provided advice on technical options and other guidance as appropriate. In one case, a well-equipped and operated facility is still resulting in offensive or objectionable odours off site at one adjacent property. Council staff have been undertaking discussions with the company regarding how they can comply with the Plan.

<sup>12</sup> Taranaki Regional Council: 'Spray painting air emissions investigation'. Internal report. Taranaki Regional Council, Stratford, 2000.

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Spray painting companies have cooperated as an industry and have done very well. Of the four properties for which the Council has received odour complaints, TBS Coatings and South Taranaki Motors have adopted emission controls and practices that appear to have addressed odour problems. The remaining two (Murray Rowe and Nicholson Car Painters) are each subject to a single complainant that arrived after the establishment of the companies.

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### **3.9 Worm farming**

In 2000/01, the Council had to deal with a worm-farming operation (Global Vermiculture) on Dudley Road, Inglewood, that for a variety of reasons did not operate as well as expected and resulted in odorous emissions from composting that is associated with that operation. The company was in the process of obtaining a resource consent application for the operation.

In response to complaints received in relation to the worm farm, the Council issued an abatement notice and an infringement notice against the company. Furthermore, following Council discussions with the company, the company withdrew its resource consent application and departed from the site to an alternative more suitable site outside Uriti. The Council was involved in the site selection. Subsequently, the Uriti site has been consented with consent conditions requiring the preparation of a management plan and the adoption of appropriate odour mitigation methods such as the addition of odour absorbing material. A comprehensive monitoring programme has also been prepared.

## 4. Environmental and management issues

Section 3 has highlighted a number of environmental and management issues that have emerged since the Council assumed air quality responsibilities in 1991. Set out below is a discussion on these issues, including the Council's response.

### 4.1 Historical planning problems

Many on-going odour emissions are a consequence of poor siting or the encroachment of residential properties within recommended buffer distances. In relation to the more problematic sites involving odour (eg, the Farmers fertiliser works, Taranaki By-products, the rendering plant in Fitzroy, Seaview Chicken Farm, DSW Green Poultry, South Taranaki Motors and TBS Coatings), these activities were located under the previous planning regime and when the Department of Health and district councils were responsible for air emissions. Consequently, the Council has 'inherited' odour problems associated with these sites.

How did this situation occur and how has the Council responded to the problem? Under the previous planning regime, authorities did not always adequately recognise the effects of odour emissions from some sites, on neighbouring properties, and the need for adequate buffer distances between conflicting land uses. The repealed Town and Country Planning Act 1977 was based on zoning where the establishment of activities of similar types could occur. However, zoning did not always fully take into account odour issues arising from sometimes conflicting activities adjacent to but outside the zone boundary. Residential properties were therefore allowed to encroach up to the boundaries of zones adjacent to already existing piggeries and spray painters and within recommended buffer distances for odour effects.

Exacerbating that problem was the allowance of urban and rural subdivisions to encroach towards an already established activity, without consideration as to whether there are aspects of that activity might be disagreeable to those moving into such subdivisions. The established activity has then become the target of complaints not all of which will ever be resolved because of the nature of that activity eg, odour from silage and piggeries.

The Council's response to such situations has been, through the consents process, to promote improvements in emission control by the air discharger. However, the Council has also recognised and provided for 'reverse sensitivity' in the Plan. That is, the Council will protect existing or appropriate land uses from the intrusion into the neighbourhood of incompatible land uses. The Environment Court has recognised the lawfulness and need for this management approach. The Council has advocated successfully for district councils to recognise reverse sensitivity and provide for it in their district plans, so that some of the situations of conflicting land uses that have occurred in the past can be prevented in the future<sup>13</sup>.

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<sup>13</sup> Key stakeholders, as part of the Plan's interim review, were invited to comment on the implementation of the Plan. One of those respondents (the New Zealand Pork Industry Board) identified the need for the Plan to be more explicit on matters relating to reverse sensitivity. The Plan already encapsulates the approach sought by this respondent. However, the Council will investigate the inclusion of policies and methods addressing reverse sensitivity when it undertakes a full review of the Plan in 2007.

## 4.2 Activities being addressed for the first time

As noted in section 3.1 above, there has been an eight-fold increase in odour incidents since the Council assumed responsibilities in 1991. The increase in odour complaints from 1991 is not believed to indicate more incidents but rather more activities are now regulated and monitored for odour emissions and the community has awareness and an expectation that odour problems will be addressed.

When the Council took over responsibility for air quality on 1 October 1991, there were 26 Clean Air Act licences in the region. As of 30 November 2001, there were 232 active air discharge consents. This reflects a number of factors:

- There were a number of activities that should have been licensed under the previous regime, but licensing had not been pursued;
- A significant number of consents are held for hydrocarbon exploration activities which have occurred since 1 October 1991;
- There are a number of activities which were permitted under the Clean Air Act, but for which the Council has determined through the Plan that consents should be held, in order to establish the necessary level of environmental control. This includes poultry farms and piggeries;
- All licences issued under the Clean Air Act have been renewed under the Resource Management Act, with more appropriate provisions covering a wider range of effects (including odour) and taking into account effects upon the neighbourhood.

Under the now repealed Clean Air Act, the Department of Health and territorial local authorities focused on larger industries with the license conditions primarily concerned with the technology to be used to abate emissions, and not with odorous or other environmental effects. Only one of the 18 local authorities in Taranaki adopted bylaws under the Clean Air Act to address small or rural based industries but even then these were not effectively enforced nor did these by-laws address poultry farms, piggeries and spray painters.

Under the previous legislative regime, Department of Health Pollution Officers<sup>14</sup> were based in Wellington and therefore they had little knowledge of local issues and were generally unresponsive to local concerns. Travel distance meant responsive monitoring simply did not occur.

Since 1991, and in accordance with section 15(1)(c) of the Resource Management Act, odour emissions from all industrial and trade premises are now addressed. The Council is not restricted only to managing large industrial sources of air emissions, but can deal with all sources should they be identified as having adverse environmental effects.

Further, the public is well aware that the Council is responsible for dealing with air quality issues. Complaints can now be received and acted upon locally and promptly (and, by implication, with some expectation of a positive outcome), rather than

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<sup>14</sup> On occasion, staff of the district health board could be asked to intervene, essentially as representatives of the Health Department.

having to be dealt with via Department of Health staff based outside the region and probably after a considerable delay.

### **4.3 Integrated management**

Under sections 30 and 31 of the Resource Management Act, regional and district councils have quite separate roles and responsibilities with regional councils being the clear agency responsible for odour issues (although district councils have retained some odour responsibilities in nuisance situations under the Health Act 1956).

Notwithstanding regional and district councils quite separate responsibilities there has been a recent example of duplication with respect to the management of odour in the Taranaki region. Besides imposing unnecessary constraints and costs on resource users, the situation creates unnecessary public confusion and uncertainty in relation to the administration of odour effects.

The South Taranaki District Council regrettably has objectives in its Proposed District Plan relating to odour. This led to the South Taranaki District Council attempting to impose conditions on a land use consent application for odour emissions by the Riverland's meatworks (a matter that had already been addressed by the Council through its consenting process).

A protocol has subsequently been developed to resolve confusion and clarify the roles and responsibilities of both the Council and the New Plymouth, Stratford and South Taranaki district councils. The protocol clarifies that the Council is responsible for all discharges of contaminants to air, including odour, except where matters clearly arise for consideration by district councils – for example under bylaws or action as a nuisance under the Health Act.

All councils have endorsed the protocol, and it is hoped that in due course the South Taranaki District Plan will be amended to remove the objectives concerned.

### **4.4 Recognising differing perceptions or sensitivities to odour emissions**

Key stakeholders, as part of the Plan's interim review, were invited to comment on the implementation of the Plan. Two of those respondents (the New Zealand Pork Industry Board and Taranaki Abattoirs) noted their concerns pertaining to requirements in the Plan for there to be "*...no offensive or objectionable odour beyond the boundary*". It was noted that there are differing perceptions or sensitivities to odour emissions, which creates uncertainty as to how the terms 'offensive' and 'objectionable' will be interpreted.

In the explanation to Policy 1.2 of the Plan, the Council recognises differing perceptions as to the 'offensiveness' of odour. Definitely, in the implementation of the Plan, it is the Council's view that what individuals consider to be offensive is personal in nature and therefore invokes differing responses and reactions. A person willingly or often exposed to an odour often becomes desensitised to that smell and react less to it. On the other hand, someone unwillingly or infrequently exposed can be very sensitised, with a stronger emotional reaction against an odour that they dislike and intrudes upon them. The smell itself may not be any worse, but the person concerned will react more strongly and more frequently, even to the point

where others may perceive their complaint as unjustified or out of proportion to the cause.

As noted in the Plan, in responding to odour complaints, the Council makes a determination on whether the odour is offensive or objectionable<sup>15</sup>. That determination takes into account the frequency of odour events, their duration, the intensity of the odour, its pleasantness or unpleasantness, and the locality. The smell must also be offensive or objectionable to a normal person, neither insensitive nor oversensitised.

Council assessment of odour is based upon a six-point category system classifying the effects of odours. The scale was developed internally, and has been adopted by the Ministry for the Environment. The categories are:

- 0=nil odour;
- 1=slight strength and barely recognisable;
- 2=recognisable and noticeable;
- 3= frequently noticed;
- 4=frequent episodes of strong odour or continuous exposure to a noticeable odour;
- 5=overwhelming and intrusive.

Categories 4 and 5 odours would generally be considered offensive and objectionable.

Because of the emphasis upon how a typical person would react, the Council has had staff involved in air quality matters trained to assess odour sensitivity and 'calibrated' for sensitivity to detecting odour and its offensiveness.

The judgement calls of the officers can frustrate people (particularly where they are sensitised to that odour) as officers in making their determination can only consider what is offensive or objectionable to them rather than what is offensive or objectionable to the complainant. This means that in some cases, individual members of the public may (justifiably from their perception) consider a smell to be offensive, or alternatively not offensive, however, the Council staff member investigating the smell comes to a contrary opinion. Both people will be 'right'. But the Council has sought to ensure that it is in a legally defensible position and would be acting on that basis when considering enforcement options.

#### **4.5 Monitoring all odour sources not just licensed activities**

The Council undertakes monitoring of all known potential sources of odour in the region – not just consented activities.

Large industrial and trade premises have site specific monitoring programmes prepared on an annual basis. These frequently include specific odour surveys at set locations, and always include a requirement for the inspecting officer to monitor odour in the vicinity. Smaller industrial and trade premises, which may be significant odour sources but not necessarily licensed (eg, spray painters), are also monitored annually as part of the Minor Industry Monitoring Round.

A further method used by the Council to assess odours is the use of odour diaries. Odour diaries are used when a person has concerns about nearby odours. A record is

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<sup>15</sup> The terms 'objectionable' or 'offensive' are not defined in the Resource Management Act but are defined in the *Regional Air Quality Plan for Taranaki* "...means offensive or objectionable as determined by an officer or officers of the Council or their agents whose capabilities have been assessed by a recognised testing authority to be appropriate for determining what is offensive and objectionable".

kept by the complainant and the odour source so that comparisons can be made to ascertain the cause of the odour (what, when, why), and to determine the scale of the problem. As a tool to involve complainants or neighbours in the assessment and improvement process, the Council uses odour diaries approximately four to five times per year.

Through monitoring problems can be assessed over time and improvements sought. In situations where ongoing odour complaints are received such that the activity no longer complies with permitted air discharge conditions, consents are required.



## 5. Conclusion

Since 1991, when the Council assumed responsibility for air quality functions, complaints have increased eight-fold. Odour makes-up 81% of all air quality incidents reported to Council and 32% of all complaints. It is noted, however, that the 'upsurge' in odour complaints is in line with an increase in all complaints for all aspects of the environment. Accordingly, the increase in complaints is not believed to indicate more odour incidents but rather a community more likely to report incidents and becoming less tolerant of its impacts, particularly where long standing issues are concerned. Standards in relation to odour have changed and what was acceptable in 1991 is now no longer acceptable (this pattern appears similar to patterns elsewhere in New Zealand).

From the review, it can further be determined that:

- The public now understands the role of the Council in dealing with air quality issues, and that the Council has the authority to take steps to remedy unacceptable situations;
- There are a significant number of odorous sources in Taranaki. Some sources (for which resource consents are still within the first review period,) are still adjusting to meeting the performance requirements of resource consents. However, in the main, industry is meeting the performance requirements;
- With further improvements in the environmental performance either occurring or about to occur at a few key locations, a drop in the number of problematic sites is anticipated;
- There remain a few problematic sites where resolution has proven more difficult;
- When a company with odorous activities has an air discharge permit application pending, complaints concerning that site may increase markedly; and
- The number of complainants does not necessarily correlate with the size or strength of the problem.

The Council has, through the rules of the Plan, the resource consents process and subsequent monitoring and enforcement, responded to increased community expectations and there have been significant improvements in emission control associated with key industry groups and at key sites. The Council will continue to work with industry and key sites but it is noted that sites with many complainants are now rare and odour complaints are generally associated with isolated incidents involving fewer complainants. New odour sources have also been dealt with as they have arisen, although the Council is still dealing with some long-standing situations – almost invariably created by poor land use control in the past.

In conclusion, while odour continues to be a significant issue, nothing in the report has indicated deficiencies in the Plan, consent conditions, monitoring methods or the effectiveness of the enforcement provisions available under the Resource Management Act.

