

A forum for the future

Gaining trade waste traction

Getting all the trade waste stakeholders around the same table is a positive step in tackling the major issues facing the sector – as **Geoff Young**, national president, NZ Trade and Industrial Waste Forum, explains.

In April this year, the New Zealand Trade and Industrial Waste Forum held its inaugural Industrial Waters Conference.

This was a major departure from the exclusive, council staff only Trade Waste SIG (special interest group) Conferences of only a decade ago. So let's discuss what the differences are between what the old SIG did then and what the Industrial Waste Forum does now. We will also look at why there is a significant difference between the publicly owned sector and the industrial and commercial sectors before finishing off with some discussion about traditional trade waste issues.

In years past, Water New Zealand had a SIG called "Trade Waste" which originally focused on the measurement and management of trade waste from a Local Territorial Authorities (LTA) perspective. The conferences were exclusive to representatives of LTAs. Sometimes, outsiders from the commercial sector were invited to speak to the conference but they weren't invited to attend the whole technical session. The focus of the SIG and the conference was to provide information and support to the Trade Waste Officers.

A little over 10 years ago, it was decided that the doors should perhaps be opened up a bit to allow industries and service providers an opportunity to get involved. In 2011, a major shift occurred and it was decided that the objectives needed to be changed. The priority became getting regulators (Central and Regional Government), utility providers (typically LTAs) and resource users (industry and commercial interests) sitting around the same table talking about what the issues were. Hence the name – Forum.

As the engagement with industry has gained momentum,

a common theme started to appear. The issues are not just waste related. Water supply, water re-use and stormwater are all issues for industry and although the regulators all deny it, the demands placed on our industries by regulators are significantly tougher than those placed on the LTAs. This means that a lot of the technology and the dialogue taking place in the mainstream in relation to stormwater in particular which targets the municipal situation, is not adequate for industrial and commercial concerns.

There is also the issue of water quality in relation to specific industrial requirements. As a drinking supply, the local water is typically very good. When you operate a process that evaporates that water off as part of the manufacture, any low levels of contaminant will concentrate up. In the Waikato River, this can lead to issues with arsenic and silica as a result of upstream geothermal activity. Elsewhere it can be iron and manganese – not to mention nutrients.

Water for domestic use has a much higher priority than water used for industry. This leads to some interesting dynamics. Industry is typically under significant pressure to improve efficiency and reduce water use per unit of product or service produced.

On the municipal front, urban dwellers use water treated to a potable standard to wash their cars and water their gardens. Never is water demand more critical in an urban environment than in the height of summer when irrigating lawns with potable water is the norm. As an aside, it is interesting that many of these urban dwellers are the same people who so vehemently criticise farmers for their use of irrigation to produce food, not just pretty lawns!

In recent times, regulators across the country have started to grapple with the issue of the allocation of water resources in the face of increasing demand. Again this presents some interesting dynamics for the productive sector. As the supply of domestic water is given a higher priority than the supply to industry (and going back to our urban dwellers), in effect this means water to keep the lawn green is more important than the water required to run a dairy factory or a meat processing plant.

So, if the allocation model for the Waikato River has the water resource as finite and pretty much fully allocated, demand increase in Auckland will likely threaten the allocation of water to industries on the Waikato River.



Where it gets really complex is that, although Auckland will be taking this water to boost its domestic supply, a significant quantity of this water will be used to expand Auckland's industry.

So should Waikato industry have its water allocations reduced to feed Auckland's increasing demand?

On the basis that the industries have already obtained the water right to abstract this quantity of water and on the basis of that, invested heavily on that site, is it acceptable for Auckland's growing demand to take priority particularly as a significant volume of this reallocated water will end up being used by Auckland industry? Believe it or not, this is a simplified view of a very complex issue that is going to be played out throughout most of the country in the coming years and although the details of this allocation model are nowhere near as complex as the actual model, the scenario is real all the same.

Recent prosecutions of industrial sites for contamination of stormwater as a result of incidents and events have sharpened the focus on issues related to stormwater. In the bulk of the cases, although the sites had detection and containment systems, these were either inadequate, poorly maintained or deliberately disabled. The Environment Court has made it very clear that it will show no leniency towards industries that contaminate stormwater regardless of the circumstances.

This has led to a significant increase in the number of sites putting in real-time monitoring and set-point diversion. Of course, once you have set-point diversion, you now need containment and so the area required for stormwater management and the cost associated escalates exponentially.

Sadly, many of the monitoring systems which have been installed and used in municipal applications have a 10 percent or higher data failure rate, which will not be acceptable should you end up in front of an Environment Court judge. This has placed significant challenge in front of the equipment and service suppliers to industry to come up with solutions that will achieve the reliability factor required. This is no simple task and many of the consulting companies that are more used to the municipal application are coming up short.

Many industries are now making significant investment in cleaner production infrastructure. This can be as simple as capturing and re-using clean water off the process to minimising raw material or packaging wastage – or, for that matter, capturing and reprocessing cleaning chemicals for re-use.

In any case, all of these initiatives have a major impact on the quantity of water required to run the manufacturing operation and the quality and quantity of waste coming out the back end of the process. The problem is that with the exception of the dairy industry, most of these initiatives are happening in isolation from other experiences and advice. It is hoped by incorporating this into the programme for the Trade and Industrial Waste Forum that more information sharing will occur between industries.

The traditional issues of the Trade Waste sector around how to measure, how to charge and what to require in the way of pre-treatment infrastructure have not gone away and

still remain a significant part of any discussions by this group.

The loss of focus around Trade Waste issues by a number of councils has been a major concern over the past five years. An even more disturbing trend is the interference by elected officials in the relationship between local commercial concerns and the council staff who have been charged with carrying out the policy of the council.

I have a personal message for these Councillors, your job is to dictate policy, if your constituent is, in your opinion, getting a raw deal, change the policy, don't harass the staff whose job it is to enforce that policy and, no, your particular circumstance or town is not different or special.

Standardising the models for how trade waste is measured and costed is a priority and to this end, National Guidelines are being developed to provide guidance to industries as to what can be expected and giving councils a reference for how to measure and charge – and what limits are typical. This is a big undertaking and given that all the work is being done on a voluntary basis, will not be complete anytime soon.

Significant discussions took place at this year's conference between Trade Waste Officers, Liquid and Hazardous Waste Contractors, and Oil and Grit Trap manufacturers around what guidelines for the use of these devices should look like. This is what the Trade and Industrial Waste Forum is all about, getting the stakeholders around the table to develop their own solutions. **WNZ**



eurofins

Independent Trade Waste Sampling and Laboratory Analysis

All industries covered including: Food, Electroplating, Manufacturing, Printing & Packaging, Supermarkets, Butchers, Restaurants, Laundries etc

Independent IANZ accredited sampling service available

- > Biochemical oxygen demand
- > Chemical oxygen demand
- > Cyanide
- > Hexavalent chromium
- > On-site temperature
- > pH
- > Phenol
- > Floatable & emulsified oil and grease
- > All metals including heavy metals & mercury
- > Sulphur compounds including sulphide, sulphite & sulphate
- > Total petroleum hydrocarbons
- > Total, suspended, settleable & volatile solids

Eurofins has been analysing Trade Waste samples in New Zealand for decades. Our expertise in the analysis of these complex matrices allows us to provide accurate and reliable analytical data to assure you and your council of your compliance to Trade Waste by-laws.

TradeWasteNZ@eurofins.com | www.eurofins.co.nz

Freephone: **0800 EUROFINS** | **0800 387 63467**
AUCKLAND | HAMILTON | WELLINGTON | CHRISTCHURCH