



Trade Waste Officers Report 2012

Officer Name: Paul Bishop (TW Tech.)

Council: Dunedin City Council

Background:

Dunedin's population (including the outlying communities) is approx. 120,000. There are seven treatment plants: 4 are referred to as the "Community Plants" servicing the outlying communities – ponds and land disposal. The remaining 3 serve Dunedin City and nearby suburb Mosgiel. Two are biological treatment plants (located at Mosgiel and Green Island). The third, located at Tahuna and providing the requirements for the whole of the Dunedin city, is currently being upgraded to a biological plant, expected to be fully converted by Sept 2012.

Trade Waste

Good stuff – industry

- A new charging and consenting regime came into place on July 1st 2011, with the result that the number of large customers increased from 23 to 64. All charging is going well and sampling regimes have been set up – for some customers, sampling has actually decreased slightly. All are on board and have good working relationships.
- Cadbury – pH control of discharge proven. Fewer pH spikes (or dips) at Tahuna. No longer test for pH, but Cadbury report on an exception basis or when requested.
- Greggs – pH control proven. Fewer pH spikes at Tahuna. Caffeine study over a 3-month period – taking opportunity of Gregg's 3-week shutdown to determine the impact of caffeine at Tahuna – no significant impact observed on the UVT at Tahuna. Therefore, we believe that the slow feed of high strength caffeine discharge is sufficient to resolve any potential issues there may have been.

- Speight's – increased production (by approx. 74%) due to ChCh quake – factory closure. Speight's have been working on Storm and Trade Waste separation – now complete.
- New World – collaboration with Foley plumbers to optimize grease converter operation (Foley's maintain traps and monitor chemical addition to 2 converters). Major improvements seen.

Good stuff – general

Progress report on Trade Waste Bylaw implementation regarding Cat A, B and C customers

- Definition of categories:
 - Cat A (high risk) – the larger industries where, even after pre-treatment, cannot meet the bylaw limits with respect to flows and/or contaminant loadings. All of these customers are sampled on a regular basis;
 - Cat B (medium risk) – meet the bylaw limits after effective pre-treatment. The management of these customers is shared between TW and EH;
 - Cat C (low risk) – discharge is below Bylaw limits, no pre-treatment is required or of a nature to be considered of no risk to a treatment plant.
- Approx. 750 customers consented.
- 64 Cat A – all now regularly monitored (up from 23 previously).
- Cat B and C – customer visits have been made to establish which of these fall into Cat B vs Cat C. Many of the Cat B customers are restaurants and cafes and are regularly monitored by Environmental Health – these will not be monitored by TW. However, some of the Cat B customers, such as dentists, are not currently monitored by EH – these will be monitored by TW.
- Dentists all being managed properly.
- Historic communications on the new model have helped immensely in implementing it.

Database – fully functional and utilized effectively

- Consent issue
- Test results
- Monthly charging
- Reporting on customer site visits

- Reminders for follow-ups etc.
- Tracking tankered waste.

Other:

- Occasional grease issues at GIWWTP – KIC has made modifications to their discharge (outside of their plant upgrade work);
- Communication with vacuum tanker operators regarding discharge;
- Tracking time against each customer to facilitate better understanding of resource management and to assist with fee setting.

Challenging Issues

Grease traps / tankered waste / work with Tanker operators – there is still some way to go with accurately recording all grease trap waste, but significant steps forward have been made.

Require notification of changes of ownership – speedy response to change of consent ownership.

Building Control – improve communications (already beginning to happen more regularly).

Solutions/Ideas

Continue working with Vacuum tanker operators – approved contractor?

Environmental Health – working together to improve understanding and consistency from a customer perspective.

Continue improved communication with Building Control.

Grease Traps

Good stuff

Almost every site that falls under the DCC (ranging from Middlemarch to Port Chalmers) has been visited and every trap inspected and/or logged.

More communication with tanker operators leading to better recording of information on premises visited. This has also led to an improvement at Green

Island which no longer receives grease trap waste (and the associated problems that causes – eg: clogged screens, coating of UV lamps).

Challenging Issues

Currently, around 70 premises that should have pre-treatment do not have GTs. Working with businesses as they work through the process of installing grease removal systems. Note that we are trying to take a collaborative rather than draconian approach – is working well so far.

Deep-fryers – where the line is drawn for requiring a grease removal system.

Interceptors

Good Stuff

As part of the city-wide studies, we have now determined the major sites that have these.

Challenging Issues

As yet, nobody monitors storm water, so recording the maintenance and performance of these units will be a challenge.

Storm Water

DCC is currently reviewing management of Storm Water, with the possible outcome being a Storm Water Bylaw. This may come under the Systems and Compliance Team control, of which Trade Waste is a part.

Good Stuff

TW currently makes comment on Storm water discharges that may impact the environment.

Challenging Issues

Cannot consent discharges to storm, although Storm Water protection is mentioned in the TW Bylaw.

Other Issues

Gas-to-energy at GIWWTP

- Gas from the nearby landfill can now supply the full power requirement of the WWTP, although some optimization work is ongoing – a consequence of the gas production cycle variation.
- Now looking at combining landfill gas with digester gas. Surplus electricity fed back to the grid.

Tahuna Plant Upgrade

- Construction work on the major structures of the wastewater treatment plant (WWTP) upgrade is heading towards completion later this year.
- The first and second High Rate Activated Sludge (HRAS) tanks have been successfully.
- Construction of the third HRAS is underway.
- All UV disinfection tubes are now installed.
- The first of two Biological Trickling Filters (BTF) are now complete – photos below.
- The wastewater screen upgrade works at Musselburgh PS – one screen now in place. Second one being installed.
- The one megawatt (MW) Stand-By Generator has been commissioned and can now supply the electricity load for key components of the WWTP, if required.
- Construction of two additional odour control biofilters is underway.
- All external construction is now expected to be completed by September 2012.