



Te Kaunihera-ā-Rohe o Ngāmotu

NEW PLYMOUTH DISTRICT COUNCIL

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## **Trade Waste Report 2012**

New Plymouth District has a resident population of 71,100 encompassing both urban and rural communities with an area of 2324km<sup>2</sup>, New Plymouth City was once run by five Council's these five Council's merged into one Council in 1913, at the time the population was 7800.

Prior to the 1900's Waitara population was larger than New Plymouth. The North Taranaki port was located along the banks of the Waitara River.

A meat works operated on the banks of the Waitara river for more than 100 years discharging directly into the Waitara river.

1990 saw the town build a high lime plant to treat the towns waste water plus the meat works waste, the treatment plant sterilized the towns influent (this was a favoured method of treating meat works waste at the time) before being discharge as treated effluent through an outfall to sea. The meat works closed in 1995.

With the upgrade the waste will be pumped to New Plymouth for full treatment fulfilling a historic promise to fully treat the towns waste.

The region is presently served by two Waste-Water Treatment Plants: Waitara and New Plymouth. The New Plymouth WWTP receives waste from three towns: Inglewood, Oakura and Okato.

### **North Taranaki Hot Topics**

- 1) Installation of a sewer line connecting Waitara (8250 population equivalent) to New Plymouth is currently well advanced.
- 2) New Plymouth WWTP upgrade has commenced June 2012 and is expected to take about two years to complete, the upgrade includes changing from surface aeration to diffused air system using blowers, mixing will continue to be achieved using the existing vertical aerators, the basin will include a zone for de-nitrification and a "selector" zone to reduce episodes of bulking. The NPDC expects to reduce the cost of treatment (dollar/ kg treated organic load) another advantage is with reduced bulking, sludge age will be able to be lengthen which will reduce the quantity of sludge produced.
- 3) Once the New Plymouth upgrade is complete the treatment plant at Waitara will be converted into a large pumping station, the large (existing) treatment tanks will then be converted into large holding tanks, which will be utilised in time of high rainfall or pump station failure e.g. power cuts.
- 4) Tegel is currently in the process of tendering to upgrade their pre-treatment facility, this will involve a new DAF and Centrifuge, once complete the organic and solids load will reduce to less than half of the current levels.

## Trade Waste

Trade waste consented companies continue to increase currently there are 80 consent companies which account for:

- 9.18 % of the total volume,
- 11.31 % of the Suspended Solids and
- 22.48 % of the BOD loading.



## Revenue



## Highlights of 2011-12

Taranaki has during the 2011-12 year received ever greater quantities of trucked waste. This together with the NPWWTP upgrade would have inserted considerable pressure of the

operational staff at the plant and caused congestion with the extra contractors expected on site.

Gas and Plumbing Ltd (Wayne) who had previously 2010-11 built a dewatering box similar to a Simon Moos dewatering unit, research different dewatering systems in a belief he could produce better results, he eventually settled of a Rotary Filter Press a second hand machine with very little hours on the clock was imported from the UK, Interestingly the machine still contained the remains inside of product which was last put through it “great bio security”.

The unit arrived and cleared customs a couple of days before Christmas. Wayne picked the unit up from Auckland, put into service prior to the new year, encouraging trials were undertaken, once a good handle was achieved other trucking companies were lobbied The machine was brought into full operation mid February.

The dewatering unit is currently processing 500m<sup>3</sup> of trucked waste per month, the waste is made up of the following:

- Grease trap waste – this was previously discharged at the landfill in liquid form
- Septage – previously discharged to the WWTP
- Oil site black water – previously discharged to the WWTP
- \*Industrial waste – previously trucked to Wellington

\*Industrial waste is discharged on a case by case basis with approval required by the Council.

Advantages gained are

- Biosolids metal limits have dropped we are now compliant with the current guidelines 100% of the time
- Workload at the WWTP has reduced allowing the operators to be freed up to undertake contractor supervision and monitoring
- Most waste produced in North Taranaki is disposed of in the same province
- Another tool to reduce operational costs e.g. electricity, gas etc

Disadvantage

- Loss of \$80,000 revenue for the discharges at the WWTP

Gary Soper

TRADE WASTE OFFICER