Submission No 55

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The Committee Manager
State Committee on Public Works
Parliament House
Macquarie Street
SYDNEY NSW 2000

Dear Carolyn,

RE: Municipal Waste Management in New South Wales

I thank you for this opportunity to provide a submission addressing the terms of reference in relation to the Productivity Commissions Inquiry in to waste management.

I now submit the following information in relation specific issues under the terms of reference.

1. **The effectiveness and appropriateness of current municipal waste management.**

   Australia currently produces millions of tonnes of waste per annum, which is disposed of in landfill. Global and national studies estimate that approximately 60% of this is organic material. Of Australia's national total, Sydney contributes to three million tonnes of waste to landfills each year.

   The effectiveness of our current system is the limited by the availability of land surface area. By having large parcels of land it allows the resource to be treated correctly and effectively. Our proven success is the process of our technology, in which our final product is of considerable value to the end user in the horticultural, agricultural and broad acre farming industries. We do not fast track our waste management system and this enables us to keep our eye on the end result of the product. We create and end product that is superior to other composts and is well sort after in the market place with 100% of the waste being used at all times. This equals zero waste as our product is never returned to land fill.

2. **Impediments and incentives to best practise municipal waste management.**

   Environmental Waste Management work involves the examination of an area of the environment, identifying its essential element, investigating the underlying processes, making predictions and assessing impacts due to an external influence or change.

The impediment and incentives can be further balanced when creating an end product that has value in the market place. High quality end product of value could see a sliding scale where the cost of treating the waste may decrease due to the value of the end product in the market place.

3. **Best practise methods, including cost effectiveness, of planning and providing municipal waste management services.**

Vermiculture is the breeding and utilisation of earth worms to break down organic material. The resulting products, vermicast and liquid castings, are internationally recognised for their soil enhancement qualities. During the breakdown process, the waste is converted into vermicast on a ratio of 1:2 or 50%. 2000 kg of waste is converted to 1000kg of vermicast and makes approximately 2000 litres of liquid castings. Based on these estimates Sydney has the potential to produce 600,000 tonnes of castings and approximately 1.2 million litres of liquid castings per annum.

Independent studies have shown that controlled applications of vermicompost (a mixture of vermicast and compost) can produce significant increases in crop yield over extended periods. Trials in vineyards have shown repeated increase yields of a staggering 30% - 50%. A similar study of other crops including cherries, other stone fruit and pears have shown measured increases of 30%+. These results are greatly improved in marginal cropping areas. By identifying the appropriate waste streams and best practices, these systems have numerous benefits to our business community in both waste management and agriculture.

4. **The development of new technology and industry associates with waste management.**

- Since commencing in 1997 we have carried out extensive research and development of our Composting and Vermiculture techniques. We have developed a process which focuses totally on large volume Green Waste resource recovery and a Zero Waste end product for use in the Agricultural and Land Management sectors.
- Our technology produces various chemically and biologically analysed composted products and liquid derivatives that tackle the issue of controlled nutrient application and soil health.
- In relation to Greenhouse Gas abatement in Agriculture, farmers and land managers are reluctant to reduce or alter their tillage methods however there are presently no effective products on the market designed to reduce emissions. Our products will help induce in situ nutrient cycling through building levels of Soil Bacteria, Fungi, Protozoa, Predatory Nematodes and Microarthropods.
- Through the processes of our technology, we are able to produce a product which will actually rejuvenate soils and making some previously unviable growing regions into new fertile soils for crop establishment.

5. **Minimising harm to the environment in the provision of waste management services.**

- Best practise composting activities should be able to register with the Greenhouse Friendly Scheme. This Federally funded scheme outlines that any abatement certificate earned abating/sequestering carbon dioxide/nitrate emissions can be traded at both the State level (e.g. NSW has a active trading scheme) or internationally (Europe began trading on Jan 1st 2005, NZ and China are actively seeking abatement certificates). Abatement credits are emerging as a new commodity. The compost products we have developed abate up to 90% of the current agricultural lime and gypsum emissions.
- A sound marketing strategy and a plan to rebate at least part of our abatement sales to farmers, will encourage the uptake of the technology.

We once again thank you for this invitation and trust that the Committee will give this matter due diligence as this venture has been proven possible and has the great potential to be further successful to both the public and private sector and community at large.

Should further elaboration be required, please do not hesitate to contact the writer directly or my fellow colleague Mr Brendon Price on mobile 0427 455 318.

Kind Regards,
ZENDELL PTY LTD

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