



11. AUSTRALIAN WASTE CONVENTION – ENVIRO 2000

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Corporate Plan Output: Solid Waste	

The purpose of this report is to convey the main learning points from the Waste Manager's attendance at the fifth Australian Waste Convention, Enviro 2000.

BACKGROUND

This conference was organised by the Waste Management Association of Australia (WMAA), the Australian Water Association (AWA) and the Clean Air Society of Australia and New Zealand. Topics were streamed into water, solid waste, clean air and greenhouse. The Waste Manager (Mike Stockwell) attended the solid waste stream papers, whilst the Wastewater Manager (Mike Bourke) the water and liquid waste stream papers.

The following philosophical points were made at the opening of the conference concerning survival of the human species on planet earth and the need for us to manage our waste products in a sustainable manner:

- Our materialistic western lifestyles are becoming increasingly unsustainable. Waste production is an index of this unsustainability.
- Society has the power and must be willing to pay for proper and sustainable disposal of waste. We must not leave it to future generations to deal with our mess.
- We must adopt a broad range of tools and actions.
- We must speed up action and do it now.
- If we do not act we will in time destroy the planet. Those who wish to ignore the situation should consider the current rate of global pollution, deforestation, the spread of deserts, the greenhouse effect causing global warming, and ozone depletion. All of these potentially catastrophic environmental effects are caused by mankind.

MAIN LEARNING POINTS

1. Waste Reduction Legislation

Australia is further ahead than New Zealand in terms of national waste management legislation. Whilst Local Government Amendment Act No 4 1996 requires Territorial Local Authorities to have waste management plans in place under the international 5R hierarchy (reduce, reuse, recycle, reclaim, safe residue disposal), and allows incentives and disincentives to be applied, it is very generalised. In Australia EPA legislation has set in place national waste reduction targets and a system of taxation has been introduced to produce funding money for waste reduction incentives.

This reinforces the need for New Zealanders to play their part in guiding our government towards appropriate national legislation which drives home the responsibility for paying for waste treatment to those who produce it, ie to either residential, commercial or construction and industry sectors of our community.

2. **Tertiary Waste Management Education**

At least one Australian University (Deakin, Melbourne) runs undergraduate courses in waste management. We need to encourage New Zealand universities to introduce similar specialist undergraduate or post graduate courses in waste management. This Council needs to consider playing its part by (for example) offering financial assistance to seed such education or offering scholarships to capable students for post graduate waste management education together with employment opportunities upon qualification. Discussion about this needs to be initiated with Canterbury University.

3. **Our Own Christchurch City Council Solid & Hazardous Waste Management Plan (SHWMP)**

In New South Wales responsibility for waste planning is taken up by waste boards. In Sydney alone there are seven of these, each of which produces a waste management plan for several of the many Territorial Local Authorities which make up Sydney. In New Zealand each Territorial Local Authority is responsible for production of a SHWMP. Our own Council's current situation is set out below.

Current Situation

The latest version of this Council's SHWMP was approved in August 1998. It is not a detailed action plan, rather it sets broad goals and directions. The overriding goal is waste reduction to landfill targets of:

- 14% by 2000
- 30% by 2005
- 100% by 2020

Since 1998 substantial progress has been made through the following actions:

- introduction of kerbside recycling;
- Target Zero commercial waste reduction initiatives;
- Recovered Materials Foundation activities;
- strategic partnership with Living Earth for blended compost products and marketing plans;
- trailer sorting, trailer weighing and supershed for sale of recyclables.

Future Direction

In order to make further progress towards the Council's waste reduction goals it is going to be necessary to develop and implement reasonably aggressive detail strategies to make reduction inroads into main waste streams, ie residential, commercial, construction and industry wastes. Some of the elements of these strategies will include some (or all) of the following :

Residential and Public

- (a) kerbside collection of mixed paper, mixed plastic, putrescibles and small greenwaste;
- (b) banning greenwaste from the landfill;
- (c) possible further increased kerbside collection, eg batteries, polystyrene and the like with bigger (70l) recycling crates;
- (d) kerbside long term plan to either continue with refuse bags and recycling crates or to convert to wheelie bins possibly for recyclables only, (and continue with bags for refuse – good minimisation strategy);
- (e) public recycling and open space recycling including recycling bins alongside inner city refuse bins;
- (f) public event recycling - refer tabled for an example of good practice;
- (g) development of a plan to further reduce residual residential black bag waste by (for example) autoclave and gasification process (refer Woollongong City Council process);
- (h) improved strategy for public education.

Commercial, Construction and Industry

- (i) sorting of construction wastes at building sites enforced via a mandatory management plan submitted for approval to the Council by builders with Building Consent Application;
- (j) partnering with industry for set up of materials recycling facilities possibly located at refuse stations;
- (k) partnering with waste collection companies in development of separated collection streams (eg green waste, recyclables, streamered C & I wastes facilitated via structured disposal charges etc);

General

- (l) commitment to and timetable for building an invessel compost plant which will be able to handle putrescibles and biosolids as well as green waste;
- (m) development of strategic key performance indicators and better reporting of key management information including waste stream inputs to landfill and reduction statistics;

Waste Management Unit needs to get on and develop detailed action plans for the main waste streams and present them to the Council for approval.

CHAIRMAN'S COMMENTS

I also attended the Fifth Australian Water and Waste convention in Sydney as a representative of the Recovered Materials Foundation, along with the Foundations CEO, Graeme King.

On the first day I attended a session on policy, planning and regulation for solid waste, which included an address by Susan Lenehan entitled 'Cleaning Up Waste'. The speaker was from Waste Services NSW, which operates transfer stations and landfills. It is a LATE. She discussed the work of the Waste Boards established in 1995, and in particular the problem of how to charge for non-landfill alternatives when landfilling is the lowest cost alternative (but not sustainable). She stated that the answer was by 'bundling', ie levies on landfill charges to provide funding for more costly alternatives. The problem with this is that it is regarded as being a non-commercial approach. The particular problem in New South Wales is to encourage sustainable options through pricing measures while avoiding default to lower cost privately run landfills. Another problem identified was the lack of incentives to invest in research and development. She wished to see sustainable options which were also commercially viable. These are exactly the problems faced in Christchurch, which we had sought to manage through the Recovered Materials Foundation.

In the early afternoon of the first day I attended a session on extended producer responsibility, with speakers from Europe and Asia. It is clear that significant progress is being made in Victoria. In the afternoon I attended sessions on packaging and recycling trends in Europe, a no waste vision for Western Sydney, and a description of how Lord Howe Island, a small isolated rural community, has approached its solid waste problems.

On the third day I attended sessions on waste to energy technologies, and on the regulation of emerging technologies in Western Australia. In the afternoon I went on a technical tour of the new Olympic village where a detailed description was given of the water and waste services being supplied during the games. A huge amount of money has clearly been devoted to the recycling of water, and an interesting high-technology sewage plant was also visited. A copy of the pamphlet 'Reducing Waste at the Olympic Games' has been tabled.

On the fourth day I attended another technical tour of three facilities: firstly a visit to the Brightstar Environmental Plant at Woolongong, secondly a visit to the Lucas Heights Waste Management Centre (a large landfill), and a visit to the Chullora Recycling Park. The Brightstar Environmental Plant was particularly interesting. The plant comprises a two-stage process incorporating an autoclave (essentially pressure cooking of a mixture of organic and nonorganic waste) after which recyclables are extracted, followed by the gasification of the remaining waste.

The gas is used for the generation of electricity using an engine similar to the one we use to burn methane at our Bromley Plant. This technology is much superior to incineration, and may have an application for parts of our waste stream in the future. There was little to learn from the visit to Lucas Heights – our new regional landfill will be of an even higher standard than this. The visit to Chullora was an eye opener. This facility comprises one huge MRF which is operated by 100 staff serving in two eight hour shifts of 50 workers. This very expensive facility, both as to capital investment and operational costs, produces only low quality recyclables (significant contamination). This was a lesson in what not to do in recycling.

The conference was overall very worthwhile. The big difference between Australia and New Zealand approaches to waste minimisation and recycling, is that the Australians invest a great deal more money than we do, but are making better progress, especially in terms of policy and regulation. At the same time the methods are clearly not very cost-effective or efficient. I believe that Christchurch overall is doing a better job, especially in recycling.

SUMMARY

Attendance at the Enviro 2000 conference confirmed that this Council is doing well with its solid waste management efforts. This effort must be sustained and increased if the Council's goal of zero waste to landfill by 2020 is to be achieved. In particular we need to work with national government to put waste minimisation legislation in place, encourage and foster tertiary education and employment opportunities for professionally qualified waste managers. Also we must develop detailed action plans for each of the waste streams namely residential, commercial and construction industry wastes.

- Recommendation:**
1. That this Council ask the Canterbury Waste Subcommittee to establish a Subcommittee to work with the working parties established by the Redesigning Resources Conference in June with the intention of influencing the government to introduce appropriate national waste minimisation legislation.
 2. That the Waste Manager liaises with the University Vice Chancellor concerning the introduction of a tertiary diploma or degree in waste management. This discussion will include the possibility of some funding by grant or scholarship from this Council.
 3. That the Waste Management Unit develops detailed action plans for all elements of the waste stream.
 4. That progress on all of the above is reported back to City Services Committee later this year.

5. That a subcommittee consisting of the Chairman, Councillor Sally Buck, the Waste Unit Manager, an appropriate staff member and the CEO of the Recovered Materials Foundation be established to work with the working parties established as a result of the Redesigning Resources Conference in June 2000.
6. That the Christchurch City Council and Canterbury Waste Subcommittee liaise with Local Government New Zealand on waste minimisation legislation.