

# SOLID WASTE MANAGEMENT

## Introduction

Johnstone Shire Council has a commitment to improving waste management practices. The Waste Management Strategy was accepted as policy by Council in 2003. It has the following objectives:

- Reducing waste to landfill;
- Educating the public to separate wastes; &
- Conducting ongoing research into alternate technologies for waste treatment.

## News

2003 saw the continued success of programs aimed towards these goals, the implementation of a few new initiatives, as well as investigations into potential future strategies.

Council's waste management programs continued successfully during 2003. The programs include – public education, DrumMuster, composting, commercial waste reduction, bin surveys, waste stream analysis, Clean Up Australia Day, green waste subsidy, vermiculture, and the pre-cyclone cleanup.

Council continued its focus on organic waste reduction through household composting and worm farms. The volume requiring transport and dumping is thus reduced and the nutrients contained in the material are retained as a resource for use around the garden.

A Sharps Management Plan was worked on in 2003. Council will promote and make available facilities for appropriate sharps disposal, to the community and to businesses.

Incidents with sharps will be monitored. This information will identify where additional service provision is required. Sharps management will also be promoted to businesses in the Shire.

The results of a preliminary Investigative Monitoring Program on waste separation became available. The program involved 70 premises and found community attitudes towards waste separation were positive.

These results formed part of the decision making process in developing a Regional Waste

## Pressure

- Disposal of waste costs the community money, and loses potential resources. Also, once stored in a landfill the wastes can impact adversely on the environment through groundwater leachate, greenhouse gases, or through odours.

The high rainfall in the wet tropics causes serious environmental problems when attempting to store biodegradable wet waste. Leachate is formed which is a by-product of water moving through the decomposing landfill. The leachate often comprises harmful and unhealthy chemical constituents. When organic waste is part of the landfill the amount of leachate generated is greater. Another problem with wet waste that requires management is the generation of methane, which is explosive and also a greenhouse gas.

Stoters landfill is a dry waste landfill, which has been engineered to prevent leachate entering groundwater. Excess landfill leachate is disposed of to sewer. All wet waste is transported to Townsville. This entails a cost to the ratepayer, but is necessary to comply with environmental legislation.

Management Plan. Opportunities exist to cooperate with other Shires in further coordinating waste disposal.

## Waste Categories

Compostable	35.87%
Recyclable	24.45%
Residual	20.08%
Paper/card (compostable or recyclable)	19.57%
Hazardous	0.02%

## Waste Diversion

Total % able to be diverted	79.92%
Total % organic able to be diverted	55.44%

Community education continued. Information on waste disposal is available at real estate agents, and from Council. Council also contributed a display on waste at the Innisfail show. There were presentations to community groups, and 15 schools were visited to promote responsible waste disposal, wet and dry waste separation, litter reduction, and recycling.

The Local Authority Waste Management Advisory Committee has aided these efforts.

They provide a mobile education facility in the form of a bus, available to 30 member Councils. The bus contains information and activities to educate on waste management and recycling.

The State Government's ChemCollect program ended in 2002. It helped farmers dispose of unwanted chemicals and containers that could not be cleaned out. This was a once-off program, but AgSafe intends to run a similar effort - the ChemClear program, which is long-term and will be funded by the chemicals industry.

### Recycling

Recycling for certain materials is presently provided at the Shire's transfer stations. A plethora of salvageable goods is also retained, and these are sold for a minimal fee at the transfer stations. Council's waste subcontractor also separates some types of recyclables from the bin waste stream.

Cardboard	140 tonne
Plastics (including HDPE and PET)	4 tonne
Light Steel	300 tonne
Heavy steel	60 tonne
Aluminium	45 tonne
Non-Ferrous Metals	25 tonne
Car Bodies	45 tonne
Tyres	500
Hydrocarbon based Oil	18,000 Litres
Chemical Containers (DrumMuster)	5,000
Batteries	40 tonne

Provision of household collection of recyclables was investigated in 2003. Present introduction would be financially exorbitant, and would require a significant fee in the rates. Investigation

### Implications

- Many of the components of waste streams are reducible, reusable, or recyclable. This requires community involvement – as waste must often be separated before it enters the disposal process. (Separation later is usually too costly.) The level of technology available and affordable also determines whether the resources in waste can be reused or recycled. The market value of the resources in the waste and the extraction costs and transport are the other factors. As waste management and reprocessing capabilities increase there will be lessened costs to the community and to the environment.

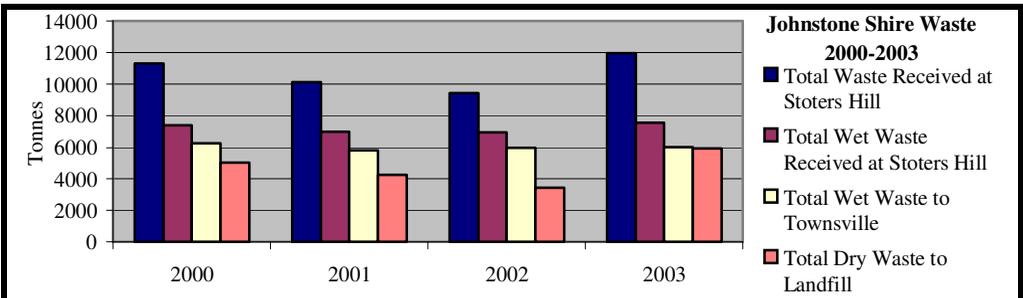
will continue to overcome these hurdles.

The commercial Waste Reduction Plan continued to gather information. Waste assessments were conducted at a number of businesses. The plan will progress further once avenues for recycling are established.

Promotion of Planet Ark continued – this program collects and recycles Christmas cards and printer ink cartridges. These efforts help to raise community awareness of recycling.

### Indicators—2003

Wet waste volumes increased. However, the amount requiring transport to Townsville remained the same. 6013 tonnes p.a. of wet waste are being transported to Townsville – still short of the 5100 tonnes p.a. target (from 7100 tonnes) by the end of 2004. Progress has remained constant at the halfway point to the target. Total waste and dry waste volumes to the Stoters landfill appeared to increase significantly, but this is due to improved measuring of dry waste established in 2003.



Note : Figures for dry waste, and therefore total waste, have increased due to improved measuring.

Bin contamination rates remained steady, with close to 20% percent of bins showing contamination between the wet and dry waste streams. This reflects public participation.

The number of compost bins distributed remained at 2350, which is above Council's original target. There is still a steady interest from the community for new bins. Council maintains a waiting list (currently 100 people), and rotates the bins when they become available. Similarly, the number of worm farms remains at 60. There is a waiting list of 10 people.

Both of these methods of recycling organic waste can be easily set up at home without the need for special bins. Information is available from Council's Health Department.

The DrumMuster chemical container collection program received 8344 containers in 2003. This has proven extremely popular, and has risen from ~5000 in 2002, and ~3500 in 2001.

Disposal facilities are located at the waste transfer stations.

Clean Up Australia Day was again a success in 2003. 839 registered volunteers, including 403 registered school children from four local schools participated in Clean Up Australia Day. The most common items found were Cigarette Butts, Plastic and Aluminium Drink Containers, and Fast Food Wrappers.

The 2003 Pre-Cyclone Season Cleanup ran for eight working days. 40 tonnes of material was removed and disposed of at the transfer stations.

Green Waste Mulch at the Transfer Stations continues to be popular. Large volumes are created, but are utilised as readily by the community.

**Conclusion**

Waste management continued to improve.

**Future Direction**

Regional coordination may lead to new options.

**Report Card – Solid Waste Management**

**OVERALL GRADE B+**

Criteria	Grade	Recommendation	Explanation
Action on recommendations <b>9 of 9 Completed</b>	A+	-Waste reduction -Community involvement -Monitoring	All recommendations have been investigated and acted upon, or are currently underway. Further investigation of additional goals took place with sharps management.
Filling deficiencies in data	A	-Monitoring	Reduced bin surveys took place. Strategic monitoring to identify the potential for recyclables was instigated.
State of the Shire	B-	-Sharps manag't -Waste reduction  -Community involvement	Sharps management plan implemented Total wet waste volumes increased. Wet waste volumes requiring transport to Townsville remained steady. Community participation in waste separation remained the same.
Goal Achievement	B	-Sharps manag't -Waste reduction	The Sharps Management Plan was implemented. Implementing household recycling problematic. Commercial waste reduction depended on recycling.
Community Awareness	B	-Community involvement	Community awareness appears steady. There is positive interest in alternative waste separation. Council has continued to provide education and interpretive material to the public.