

Waste and Litter Education Strategy for the Mornington Peninsula

1998

GLOSSARY

ART	Australian Rescued Timber
AWARE	Association of Waste and Recycling Education
EPA	Environment Protection Authority
Green Waste	Lawn clippings, garden prunings, tree prunings and branches
Hard Waste	Solid inert waste such as building materials and metals
LRRA	Litter and Recycling Research Association
MGB	Mobile Garbage Bin
MPSC	Mornington Peninsula Shire Council
m ³	Volume measurement - Cubic metres

Table of Contents	Page Number
Executive Summary	1
1. Introduction	2
1.1 Background for Developing a Waste and Litter Education Strategy	4
2. Existing Strategies, Policies and Programs	6
2.1 Corporate Plan	6
2.2 Regional Waste Management Plan	7
2.3 Purchasing Policies	7
2.4 Previous Litter Strategy	7
3. Available Resources	8
3.1 Internal Resources	8
3.1.1 Staff	8
3.1.2 Existing Communication Tools	8
3.2 External Resources	8
3.2.1 Contractors	9
3.2.2 External Organisations that Promote Waste Minimisation	9
4. Demographics and Waste Generation	11
4.1 Population	11
4.2 Education & Training	12
4.3 Ethnicity	12
4.4 Housing	13
4.5 Retail Sector	13
4.6 Industry Profile Summary	15
5. Waste Profile	17
5.1 Waste Stream Analysis conducted by Monash University	17
5.2 Recycling Audit conducted by Monash University	18
5.3 Internal Garbage Audit by Mornington Peninsula Shire Council	18
5.4 Domestic Garbage Bin Audit	20
6. Specific Programs Targeted for Specific Sectors in the Community	21
6.1 Specific Programs for the Residential Sector	21
6.2 Specific Programs for the Foreshores and Public Places	23
6.3 Specific Programs for the Education Sector	24
6.4 Specific Programs for Industry Groups	26
7. Litter Profile	28
7.1 Local Litter Profile	28
7.2 Specific Programs or Litter Reduction	30
References	33

Table Number	Description
4.1.1	Comparative Population Figures between Mornington Peninsula and Melbourne
4.2.1	Number of Schools on the Mornington Peninsula
4.4.1	Percentage of Occupied and Unoccupied Dwellings on Census Night
4.5.1	Major Shopping Centres on the Mornington Peninsula
6.1.1	Specific Programs for the Residential Sector
6.2.1	Specific Programs for Foreshores and Public Places
6.3.1	Specific Programs for the Education Sector
6.4.1	Specific Programs for Industry Groups
7.2.1	Specific Programs for Litter Reduction

Figure Number	Description
1.1	Population Figures and Visitation Numbers
2.1.1	Corporate Plan Hierarchy
4.4.1	Percentage of Occupied and Unoccupied Homes
4.5.2	Mornington Peninsula Regional, Sub Regional and Local Shopping Centres Location Map
4.6.1	Industry Profile Summary for the Mornington Peninsula
5.1.1	Total Waste to Landfill - Volume
5.1.2	Total Domestic Waste to Landfill - Volume
5.3.1	Results of Council Internal Garbage Audit in Rosebud
5.3.2	Results of Council Internal Garbage Audit in Mornington
5.3.3	Results of Council Internal Garbage Audit in Hastings
5.3.4	Amount in Kilos Collected for Garbage, Recyclables and Paper Per Household from Mornington Peninsula Shire Residents
7.1.1	Foreshores Management Responsibility Map

Executive Summary

A waste and litter education strategy has been devised to establish an effective waste minimisation program aimed at halving the amount of waste being sent to landfill by this decade. The strategy investigates ways in which all sectors of the community can participate in to take responsibility for the amount of garbage they generate. After researching demographics and completing a community, waste and litter analysis, specific problems became evident and key focus groups, emerged as potential candidates at which to target a waste minimisation campaign.

EcoRecycle Victoria developed a program known as Waste Wise and initially piloted it in the City of Darebin. Mornington Peninsula Shire Council became involved with Waste Wise when EcoRecycle Victoria provided funding for the implementation of the program on the Peninsula. A waste minimisation officer was engaged to facilitate an effective community awareness and education campaign.

A number of projects have already been successfully implemented to achieve a reduction of waste entering the landfills. These include:

- Promoted of the green and hard waste collection service through advertisements in the local papers and assisted with the production of the brochure for this service;
- Worked with schools to foster an awareness and understanding of waste minimisation in children; and
- Produced an education brochure to inform the residents in the North about the new mobile garbage bin system. This included information regarding:
 - Incurred costs for choosing a larger bin size from the standard;
 - How to use the new bins;
 - A weekly paper and cardboard collection service;
 - Recyclables acceptable to place in the recycling crates;
 - A door to door kerbside green and hard waste collection service;
 - Chemical disposal and
 - Compost bins

Initiatives the waste and litter education strategy have developed include:

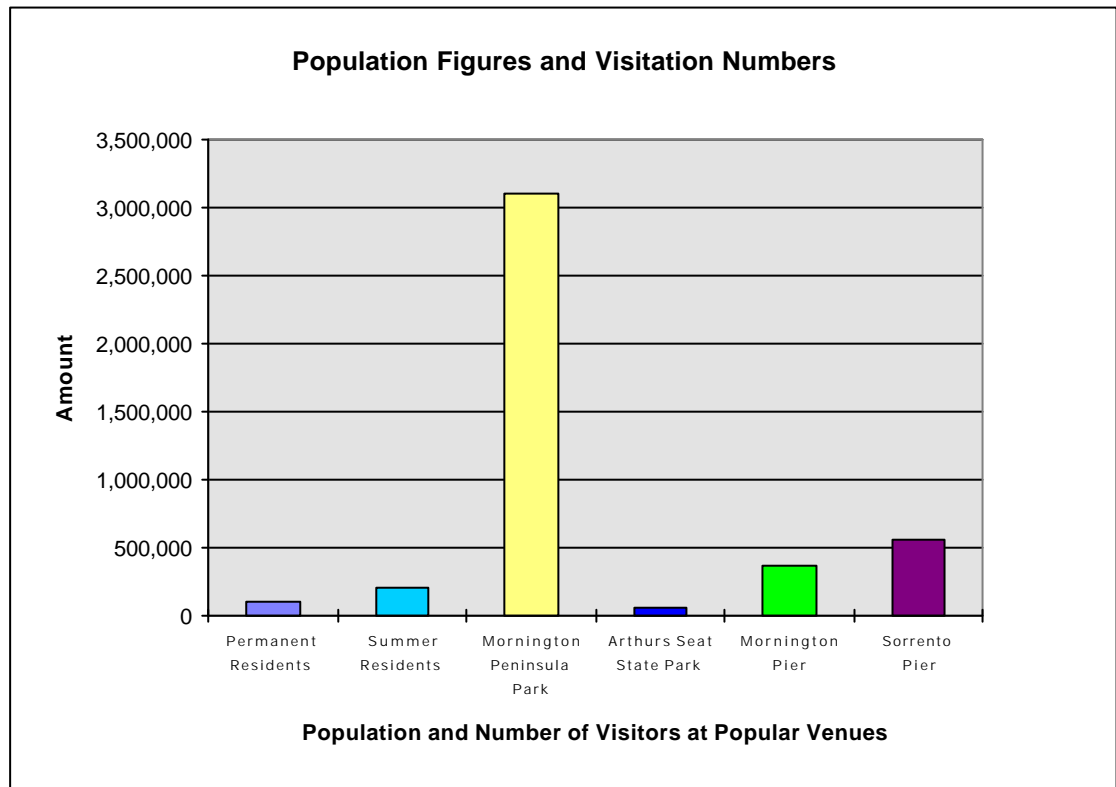
- Refurbishment of a mobile education caravan;
- Promotion of Environment Week;
- Organisation of Clean Up Australia Day;
- Facilitate a recycling program at the foreshores that accommodate for campers;
- Establish schools of excellence to promote as models for other schools;
- Develop waste minimisation programs for business groups; and
- Establish a litter task force

1. Introduction

Australians produce a very high quantity of waste per person. Waste generation is always a major concern, and the problem is exacerbated due to the enormous influx of tourists that visit the Mornington Peninsula every year during the holiday season.

Currently the Peninsula has a resident population of approximately 110,000 which increases to over 200,000 during holiday periods. In addition there is an exorbitant amount of day visitors. In the 1996/97 financial year 3.18 million visitors attended the Mornington Peninsula National Park, 61,700 visited Arthurs Seat State Park, 555,000 visited Sorrento pier and 366,000 visited Mornington pier. The Peninsula has over 190 kilometres of coastline which is utilised excessively during the holiday season.

Figure 1.1

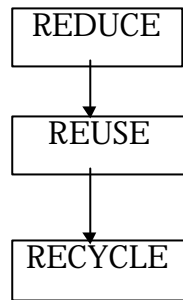


The State and Federal Government has established targets to reduce waste going to landfill by 50% during this decade. One of the major commitments Mornington Peninsula Shire Council has undertaken to achieve this goal is to develop a waste and litter education strategy.

Much of the waste that is disposed of at landfills could be utilised in other ways. The strategy essentially aims to change community attitudes to reduce, reuse and recycle materials and minimise waste. Using this simple terminology will assist our community to understand the reasons behind our need to minimise waste and how it can be achieved.

Reduce means to lessen the amount of waste generated in the first place. Reuse means to utilise the item more than once rather than dispose of it. An example may be to use linen napkins rather than disposable paper ones. Recycling aims to

prevent materials entering the landfill that can be made into valuable products.



Waste minimisation education is about long term, lasting change so that waste minimisation becomes a part of normal everyday life. People are often influenced by what other people are doing. Waste minimisation education needs to encourage positive and reinforcing action based examples. Council can assist facilitate models of environmental best practice throughout the community. This approach helps the community to understand the necessity to take responsibility for their own waste problems.

Thorough planning needs to occur to achieve a commitment from households to minimise waste. Council has developed a Waste Wise program which aims to foster an understanding amongst individuals of our waste problem and the need to take individual and group action. Education and promotion are the key factors to integrate practical solutions in the home and in business to achieve positive outcomes.

In order to facilitate an effective waste minimisation campaign a range of different approaches need to be implemented to successfully achieve expected outcomes. The waste and litter education strategy follows some important criteria to achieve this. The following themes are used as the basis of the strategy:

- Facilitate a change in behaviour, rather than just providing information. This needs to be achieved through an ongoing education program;
- Focus on all members of the community as potential candidates to participate with reducing waste by providing information through local media, rate notices and letter drops;
- People learn in different ways, therefore different education methods need to be implemented to inform and reinforce attitudes on waste minimisation objectives within the community.
- Waste minimisation needs to become apart of everyday life and should be included at home, at work, play, school and public places;
- Promote models of environmental best practice within the community to encourage others; and
- Waste minimisation facilities should be easy to use, cheap and convenient.

1.1 Background for Developing a Waste and Litter Education Strategy

Mornington Peninsula Shire Council became a Waste Management Region on 8 December, 1995. Council prepared a Regional Waste Management Plan, which was approved by the Environment Protection Authority (EPA) in May 1997.

One of the key initiatives of this plan is to halve the amount of waste going to landfill by this decade. It aims to move towards a more sustainable, environmental and economic management system. The development of a waste and litter education strategy will help to achieve this. Objectives that the strategy aims to achieve are:

- To effectively reduce the amount of waste going to landfill by 50% by this decade.
- To increase awareness and focus community attention, concern and motivation on waste minimisation and the responsible use of resources.
- To provide an accessible source of information and assistance to all members of the community seeking to reduce waste produced in the home and the workplace.
- Liaise with local businesses and community groups to encourage waste minimisation.
- Implement simple procedures within the key target groups to enable effective waste minimisation.

Mornington Peninsula Shire Council recognised the potential to implement a strategy in an attempt to overcome existing problems associated with waste and litter. Due to our large influx of population during the summer months, it became necessary to implement strategies which target both residents and holiday visitors. EcoRecycle Victoria and the Mornington Peninsula Shire Council agreed to jointly fund the position of waste minimisation officer. This role was developed in order to comply with objectives set out in the Regional Waste Management Plan.

An extensive campaign known as Waste Wise, was used as the basis for the development of the waste and litter education strategy. Mornington Peninsula Shire became involved under the Waste Wise scheme to become more pro active and develop waste minimisation programs which best meets the needs of the residents and visitors to the Mornington Peninsula.

Waste Wise was developed and funded by EcoRecycle Victoria and piloted initially in the City of Darebin. The aim of the project was to facilitate waste minimisation by people and organisations within Darebin. A logo was developed to be placed on all publications so the community could identify the meaning it aims to convey.



Source: EcoRecycle Victoria, 1997

Another part of the project undertaken by the City of Darebin was to develop and implement a model waste and litter education strategy for local government and local communities.

To establish effective campaigns people need to learn about waste and litter reduction methods through their normal living routines. Local Government plays a major role in significantly influencing the way people dispose of their domestic waste. These methods include:

- implementing smaller garbage bins.
- increasing recycling services that are simple and convenient to use.
- moving towards a user pays basis for extra garbage capacity.
- availability of recycling facilities in public place areas.
- reduction of organic matter in the waste stream by providing convenient services.

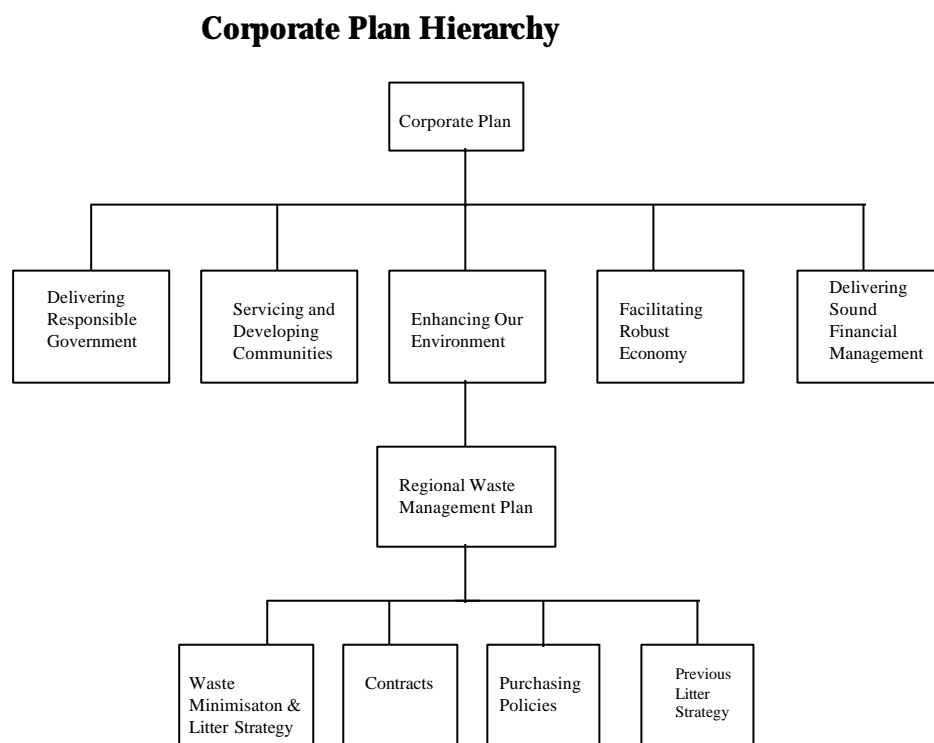
2. Existing Strategies, Policies and Programs

2.1 Corporate Plan

The corporate Plan has five key corporate objectives which are outlined in the below flow chart. The Corporate Plan initiates and guides all Council plans for the future and governs the services provided by Council. Specific policies and strategies are developed to meet these needs. The waste and litter education strategy has evolved from policies within the corporate plan.

The below diagram represents the hierarchy of projects and objectives that have eventuated due to the production of the corporate plan.

Figure 2.1.1



Source: Mornington Peninsula Shire Council's 1997 Corporate Plan

The corporate plan is the most important strategic planning document for the Mornington Peninsula Shire Council. It provides the guidance and direction for all aspects of Council as a responsible governing body. The plan was adopted in June 1997. The corporate plan identifies the need to provide a quality, cost effective and environmentally sustainable waste management program which offers choice to customers.

The corporate plan also specifies the following actions:

- establish performance measures for the reduction of waste going to landfill;
- promote waste minimisation through community education;
- develop and implement a community education program to promote waste minimisation and litter reduction;
- develop an awareness program regarding issues such as dumping of

- rubbish and the importance of recycling; and
- promote 'clean-air' in the municipality through eliminating open air burning of waste.

2.2 Regional Waste Management Plan

Key points outlined in the Regional Waste Management Plan, that the waste minimisation strategy will include to assist the community in minimising the amount of waste produced are:

- incorporate an education campaign to achieve waste reduction;
- implement a user pays domestic waste collection system;
- provide a more convenient system for collection of recyclables; and
- offer alternative methods for the disposal of green and organic matter.

2.3 Purchasing Policies

The Regional Waste Management Plan has recommended that a purchasing policy be established for the goods purchased by Council, to encourage the use of products containing a high percentage of recycled material. Council will investigate the inclusion of these provisions within its contracts and specifications. The recycled materials should be post consumer products.

2.4 Previous Litter Strategy

The former Shire of Flinders produced a document called 'Keep the Shire Clean Campaign' which focused on waste minimisation initiatives. Programs were developed in response to the community's growing awareness and concern about the environment and the need to conserve resources. This document has been used as background material and data for the development of the litter strategy.

3. Available Resources

3.1 Internal Resources

3.1.1 Staff

Since the Mornington Peninsula Shire Council (MPSC) has been declared a Waste Management Region, a Regional Waste Manager was appointed. Staff involved in waste management includes a member from the Service Planning Department and a Waste Minimisation Officer.

The Contracts Department assesses all tenders and coordinates contracts that are currently in place. They assist with incorporating waste minimisation requirements into contracts. This enables Council to have a positive impact on products and services being purchased by Council and encourages companies to incorporate waste minimisation initiatives and to purchase products manufactured with recycled materials.

The Waste Minimisation Officer's key role is to facilitate a community based waste minimisation program. This program aims to foster changes in behaviour in our every day lives which will reduce waste. Specific programs have been developed to target sectors within the community. The role also encompasses the need to empower groups and organisations to develop their own responses and programs to minimise waste.

3.1.2 Existing Communication Tools

Peninsula Wide, a Council magazine is distributed quarterly to all residents of the Mornington Peninsula Shire. This publication is a valuable resource to inform the community about current waste management issues.

Through the rate notices information can be disbursed to all ratepayers especially those that do not reside on the Peninsula.

Brochures are used to inform residents of new services provided by Council.

Advertising in the local papers has proven to be a very effective means of informing the community. Advertising in Melbourne papers has reached a limited number of residents and non-resident ratepayers.

3.2 External Resources

Council has entered a partnership arrangement with each of its waste contractors. As part of this partnership, each contract has a waste minimisation education component as an integral part of the contract objectives, assessment process and outcomes.

3.2.1 Contractors

Mornington Peninsula Recyclers has incorporated an extensive education campaign into their services. They provide Council with displays and

promotional material that can be used in schools, elderly citizen clubs, shopping centres and Council offices. They have recently purchased a caravan that will be transformed into a valuable education tool for waste minimisation. Together with the Waste Minimisation Officer this van will be taken to a variety of outlets to promote waste minimisation.

Bass Highway Waste has recently won the contract for the collection of domestic garbage for the northern part of the Shire. As part of their contract, they must include an education component to residents regarding how to reduce waste.

Enviro Mulch is the only company to achieve the Australian Standards for mulching and composting. It has invested capital into the research and development phase to ensure the product achieves this high standard. Enviro Mulch is active in community education for residents who visit the mulching site, schools, and at conference presentations.

Twigg Group were the successful contractors to operate each of the three waste disposal centres. These are located at Rye, Mornington and Tyabb. At each site recycling is encouraged and areas are designated for specific materials, including an area for green waste where mulching takes place. They are required to develop a community education program as part of their contract.

The waste minimisation officer will work with each contractor to ensure that an effective education program is devised to meet the requirements of their contracts.

3.2.2 External Organisations that Promote Waste Minimisation

Australian Rescued Timber is another local company committed to supporting waste reduction goals. ART has developed a sustainable method of converting waste timber into a value added product. The company identifies timber products that are entering the waste stream that contain recycling potential. Timber is recovered, milled and then crafted into products or materials for sale within the community, as well as minimising the demands on native forests. They invest in advertising and promotion to inform the community about their services.

Mornington Peninsula Ratepayers Association have become involved with the Shire. Discussions and information sharing with this group has led to a successful partnership with regard to waste issues. They are keen to offer their support to promote and explain waste minimisation within the community. They also use a range of methods to communicate effectively with their membership base.

The waste minimisation officer is actively involved with the AWARE (Association of Waste and Recycling Education) Group, which consists of members from other Councils that meet monthly to discuss specific issues regarding waste. The group offers support and provides a forum to share ideas and discuss ways to improve services to achieve waste

minimisation.

Reverse Garbage Truck recovers industrial wastes for re-use within the community. Their head office is based in Footscray and they have an outlet store located in Mornington that is open to the public. The Mornington branch has been established to offer Mornington Peninsula Shire residents a large assortment of materials that have been collected from various organisations that are no longer needed. For a small joining fee, members of the public are welcome to take as many materials as they like. Reverse Garbage Truck helps to prevent some valuable resources going to landfill.

EcoRecycle Victoria is a Government organisation that has numerous resources available to Councils. Recently they have established a recycling info line which is aimed at the general public, businesses, schools and Councils to answer specific recycling questions.

The Gould League is an organisation that offers a vast amount of waste minimisation promotional materials and information that is targeted towards children. They also are available to perform live theatre productions for children, that involve waste minimisation messages. This organisation is a valuable resource for schools and teachers.

CDS Technologies, is a local company that has invested capital into the research and development of a new pollutant trapping device, which removes litter in the drains. The traps also are designed to catch suspended solids collecting large amounts of silt and sediment which would otherwise block waterways and pollute the bays.

4. Demographics and Waste Generation

Developing a community profile will assist with the overall planning of the waste and litter education strategy. Research into the demographics of the Mornington Peninsula will assist to establish target groups. Specific programs can then be designed and implemented to achieve waste minimisation.

4.1 Population

The population of the Mornington Peninsula Shire in 1991 was 101,511, of which 49% were male and 51% female. Persons aged over 65 or more comprised 16% of the total population. Over 61% of the total population were aged between 16 and 65.

The Shire comprises of 27,572 families. 50% of these were two parent families with offspring and 37% were couples without offspring. Single parent families made up 12% of all families. Just under half of all families had dependent offspring present (those offspring aged 0-14, or full-time students aged 15-24 years).

Table 4.1.1

Comparative Population Figures between Mornington Peninsula and Melbourne

Comparison at a Glance		
1991 Census	Mornington Peninsula	Melbourne Stat. Div.
Total Population	101,511	3,022,533
% of people aged <5	8.0	7.2
% of people aged 5-24	13.5	30.7
% of people aged 15-64	61.2	68.3
% of people aged 65+	15.9	10.7

Source: Australian Bureau of Statistics 1991 Population Figures Census Data

The percentage of the population on the Peninsula aged between 15 to 64 indicates the working population compared to the 5 to 24 year old group which represents the student population. As the largest percentage refers to the working population specific waste minimisation programs need to be developed to target the working industry. Residents in the over 65 year age group represent a significant number on the Peninsula that require information to assist them to be actively involved in recycling activities.

4.2 Education and Training

The number of people attending an educational institution in 1991 was 23,293, or 23% of the Shire's total population. 75% of these students were attending either primary or secondary schools. A further 15% were studying at TAFE colleges, CAEs or at university.

This information supports the need to target schools. These figures suggest that over 17,000 students were either attending primary or secondary schools in 1991. Information from the below table regarding number of schools on the Peninsula show that 68 schools are either primary or pre schools. Council plans to implement an extensive education campaign in conjunction with Mornington Peninsula Recyclers.

Table 4.2.1

Number of Schools on the Mornington Peninsula

School	Number
Pre Schools	31
Primary Schools	37
Secondary Schools	10
Tafe College	1
Australian Management College	1

Source: Mornington Peninsula Shire Council's 1996 Clubs and Organisations Directory

Council is very keen to provide information to the schools, especially young school children who often have the greatest influence with initiating waste minimisation activities in the home.

4.3 Ethnicity

In 1991, 19% of the population in the Shire of Mornington Peninsula were born overseas. Whereas nearly 11% of the population came from the UK, less than 6% of the total population came from a non-English speaking country. The most common language, after English, was Italian, spoken by 1% of the population.

Brochures and other materials are not provided in other languages, as the number of people from non-English speaking backgrounds is relatively low, and covers a wide range of languages. Information containing graphics, however will be utilised to communicate effectively with these groups.

4.4 Housing

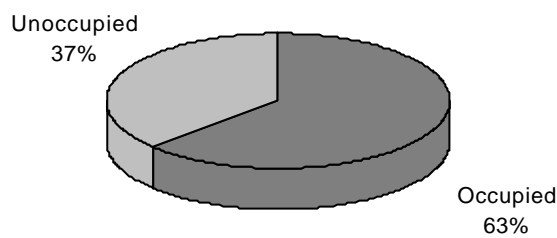
In 1991, 58,407 private dwellings existed in the Mornington Peninsula Shire. Separate houses comprised of 91% of all housing stock, semi-detached houses comprised of 4% and flats or apartments 3%. Programs

have specifically been designed for separate and semi-detached houses. There is an insignificant number of apartments and flats to focus the waste wise campaign.

Table 4.4.1 shows a break down of each town on the Peninsula with the figures indicating the amount of homes occupied and unoccupied. On census night only 36,621 dwellings were occupied leaving 37% or 21,786 homes unoccupied. The below chart represents these figures.

Figure 4.4.1

Percentage of Occupied and Unoccupied Homes



Source: Australian Bureau of Statistics 1991 Census Data

From this information it can be assessed that a high proportion of the homes unoccupied are holiday homes.

Programs need to be developed to target holiday makers to the Peninsula. These residents need to be informed about all current services provided by Council, so participation rates can remain high during the peak holiday seasons.

4.5 Retail Sector

Below is a table representing the major shopping centres on the Mornington Peninsula:

Table 4.5.1

Major Shopping Centres on the Mornington Peninsula

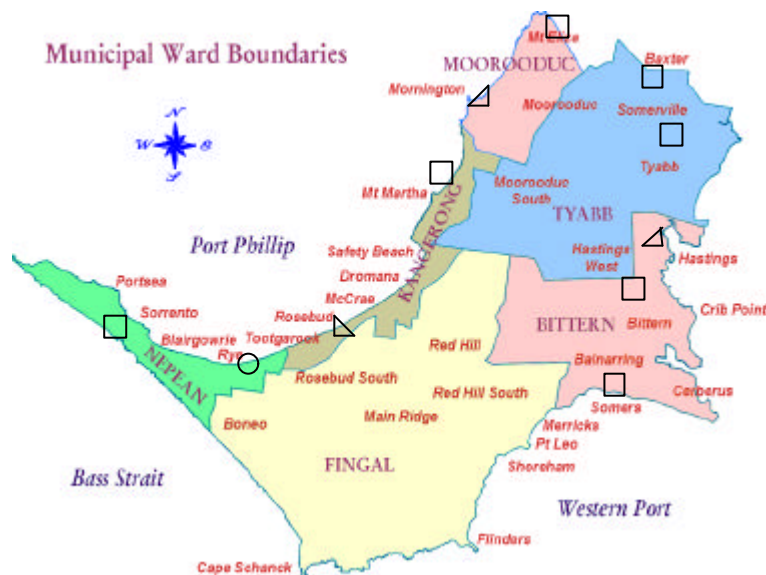
Shopping Centre	Function	Catchment Population (approx.)
Sorrento Town Centre	Local	3,000

Rye Town Centre	Sub Regional	15,000
Rosebud Town Centre	Regional	40,000
Balnarring Town Centre	Local	5,000
Bittern General Store	Local	4,000
Hastings Town Centre	Regional	30,000
Somerville Town Centre	Local	10,000
Baxter Town Centre	Local	3,000
Mount Eliza Town Centre	Local	8,000
Mornington Town Centre	Regional	30,000
Mount Martha Town Centre	Local	17,000

Source: Australian Bureau of Statistics 1991 Census Data

Figure 4.5.2

Mornington Peninsula Regional, Sub Regional and Local Shopping Centre Location Map



Key
Regional 
Sub Regional 
Local 

Source: Phil Hughes, GIS Coordinator, Mornington Peninsula Shire Council 1997

When establishing the education campaign these Regional and Sub Regional shopping centre venues are very useful to use as a central point to convey Waste Wise messages. During the holiday periods when the resident population increases to over 200,000, the main shopping centres that service the popular camping areas are paramount locations for information materials.

4.6 Industry profile summary

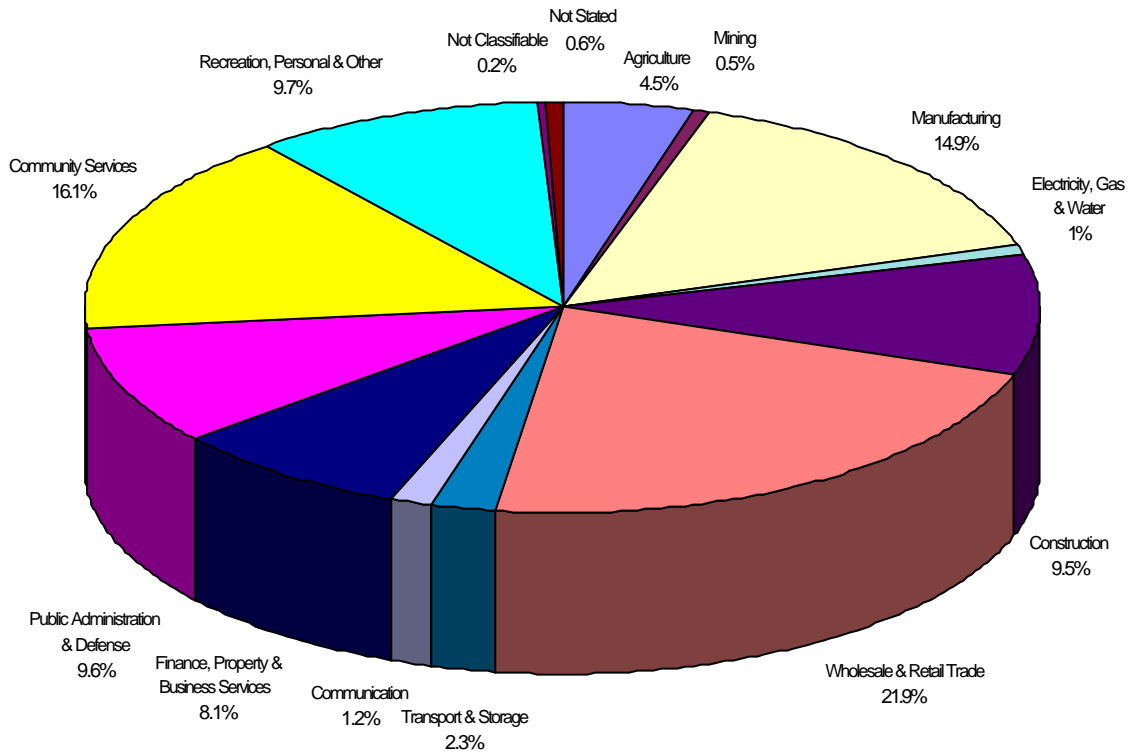
This table shows the percentage of residents, that either live on the Peninsula or outside of it, that work within the following industries in the

Mornington Peninsula Shire.

	MPSC
Agriculture, forestry, fishing etc	4.5%
Mining	0.5%
Manufacturing	14.9%
Electricity, gas & water	1.0%
Construction	9.5%
Wholesale & retail trade	21.9%
Transport & storage	2.3%
Communication	1.2%
Finance, property & business services	8.1%
Public administration & defense	9.6%
Community Services	16.1%
Recreation, personal & other	9.7%
Not Classifiable	0.2%
Not Stated	0.6%

Figure 4.6.1

Industry Profile Summary for the Mornington Peninsula Shire



Source: Australian Bureau of Statistics 1991 Census Data

Wholesale and Retail trade and community services are the two largest sectors of the Mornington Peninsula Shire. Both these areas have a potential to implement an effective education campaign. Community services largely incorporates the residential sector which Council has focused the waste minimisation campaign.

BHP is one of the largest organisations that exist on the Peninsula that is involved with manufacturing, employing over 1,500 staff. This organisation places a very high priority on waste minimisation and life cycle management of products. They have an extensive waste minimisation program in place therefore Council is placing little priority on the manufacturing industry.

In future Council will consider targeting organisations within the public administration, recreation and construction sectors.

5. Waste Profile

Waste and litter education needs to involve the whole community. Many sectors and organisations need to be targeted to implement a successful waste minimisation campaign.

There are a number of prominent groups in the Mornington Peninsula Shire that the waste and litter education strategy aims to target, in order to meet the objective of reducing waste by half by this decade. This is supported by the demographic analysis.

These groups are:

- The residential sector
- Users of the foreshores and public places
- The education sector
- Seniors

The residential sector comprises of over 65,000 households. Our research has indicated that individuals can be extremely pro active in assisting with the reduction of waste.

The second target sector are the users of the foreshores and public places. The Mornington Peninsula Shire has 193 kilometres of coastline, therefore the foreshore areas are a key group to focus on for waste minimisation. During the holiday season camping occurs at 11 out of the 22 foreshore sites. Many of the foreshore committees of management have introduced a 'take your rubbish home' policy which they claim is being very successful. Council is responsible for eight foreshore areas and are keen to provide effective receptacles to promote waste minimisation.

The education sector is the third major group on the Mornington Peninsula that can provide support to waste minimisation. Children can be very easily educated about advantages of recycling, and often encourage recycling within the home.

Elderly members of the community represent over 16,000 people which is 16% of the total population. This is a significant target group for Council to focus. It is very important that information disseminated to this group is conducted in a manner that is easily read, informative and understood.

5.1 Waste Stream Analysis conducted by Monash University

A Waste Analysis of the Mornington Peninsula was conducted by Monash University in May 1996. (Source: Waste Stream Analysis for the Shire of Mornington Peninsula, Centre for Innovation in Waste Management, Monash University, May 1996). The study occurred over a period of one week at the Tyabb and Rye landfill sites. The analysis involved both physical sampling and waste sorting, and non-physical visual surveys of waste entering the landfill. The aim of the study was to determine the:

- waste composition;
- source of waste; and
- total amount of waste.

The results confirmed that the amount of waste going to landfill is largely derived from domestic sources and represents half of the total amount of waste going to landfill. This is evident in the total volume. During the survey period 4,965m³ was the total waste going to landfill and 2,571m³ was the total volume of domestic waste contributing to the overall amount. This study enabled Council to determine problem areas and devise programs specifically designed to meet the needs of each sector in the community. Results of this study are represented in figure 5.1.1 and 5.1.2

Figure 5.1.1 shows total waste going to landfill. The results confirm that nearly 50% of the waste going to landfill is waste which can be recycled. The largest percentage, 23.3%, of waste going to landfill is green waste followed by paper 12.8% and 10.7% is hard waste.

Figure 5.1.2 shows quantities of domestic waste going to landfill which could be eliminated from the waste stream. Figures confirm the high amounts of green waste, hard rubbish and paper being placed in the bins and deposited at landfill. Council has targeted its Waste Wise campaign to date, on the residential sector of the community in order to divert recyclable material away from landfill.

5.2 Recycling Audit conducted by Monash University

From a separate report also conducted by Monash University on a recycling audit, showed that the recycling participation rates were considerably higher than the Melbourne average. A sample was taken from Mornington, Tyabb and Rye. Mornington and Tyabb use crates and Rye has the split bin system. The average amount of recyclables collected per household was approximately 2.93 kilos compared to the LRRRA average of 2.625 kilos. It is likely that Mornington Peninsula residents have a genuine interest to maintain a clean environment. Council will capitalise on residents willingness to participate when implementing other programs associated with waste minimisation.

5.3 Internal Garbage Audit by Mornington Peninsula Shire Council

In April 1996, Council undertook an internal garbage and recycling audit to provide comparative data between the Shire and metropolitan Melbourne. The study involved researching the content of domestic garbage bins going to landfill, and the types of products and quantities that are being recycled. The content of garbage bins from thirty homes were weighed. The results showed that an average of 8.2 kilos of garbage per household was generated. Figures 5.3.1, 5.3.2 and 5.3.3 show the results.

The study showed that residents who had the split bin system generated nearly two and a half times more waste than those residents in the areas where smaller bins are used. The 240 split bins in the Rosebud area were found to contain 37% of green waste, consisting of lawn clippings, leaves and weeds, compared to Mornington and Hastings which produced negligible amounts.

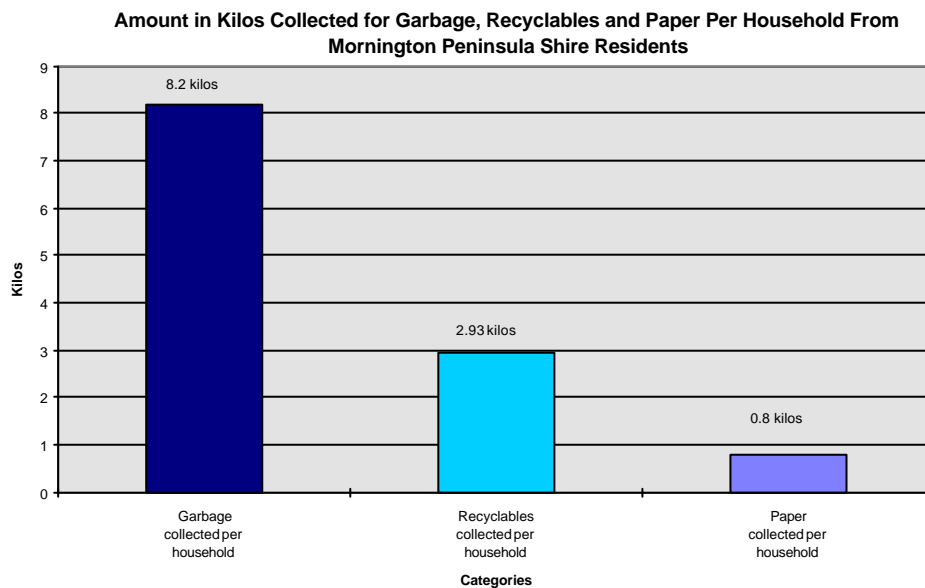
In the Southern part of the Shire green waste emerged as a major problem, due to the large 240 litre split bins that provide the capacity. Council developed a door to door kerbside green waste collection service and included hard waste to divert green and hard waste being placed in garbage bins. The service has been provided on a user pays basis for everyone in the Shire.

In the Mornington area 12% of paper was found in garbage bins, 15% in Rosebud and only 2% in Hastings. Figures from Council Contracts Department have estimated that an average of 0.8 kilos of paper per household is collected across the entire Shire. To increase this figure, Council has implemented a weekly paper collection service for the Northern part of the Shire which effects Mornington and Hastings. This service has been provided to eliminate paper from garbage bins.

Currently the Southern part of the Shire, which is Rosebud area have a monthly paper collection service and Council is in the process of reviewing this contract to maintain equity throughout the Shire.

Figure 5.3.4 shows the overall results from each of the above studies. Council can estimate that 31% of the total amount of waste produced is diverted for recycling. Council will continue to investigate the amounts of garbage, recyclables and paper households are generating in order to evaluate the effectiveness of programs Council have implemented to residents.

Figure 5.3.4



5.4 Domestic Garbage Bin Audit

In a survey undertaken at a local landfill site in 1992, an investigation was conducted to determine the content of a typical domestic garbage bin. A random truck load of household garbage was chosen. The contents were sorted into recyclable categories established by the LRRRA.

The total amount of garbage sorted was 5.1 cubic metres. The results of this study clearly identified that 3.9 cubic metres of materials were recyclable leaving only 1.2 cubic metres to be sent to landfill.

There seems to be a correlation between the size of the bin and the amount of

waste disposed of per household. Projects that Council have undertaken recently have been aimed at decreasing the total volume of household waste. In the Northern part of the Shire, which incorporates Mornington and Hastings, kerbside services such as recycling crates, weekly paper collection and smaller garbage bins have been major projects undertaken by Council to provide residents with convenient systems to achieve waste reduction.

Research concludes the need to advise residents on how they can help to reduce the amount of waste they accumulate to inevitably prevent recyclable material being sent to landfill sites, and taking up valuable space. The following are aims that Council will implement to inform residents about becoming waste wise:

- Develop information suitable for young students to understand the importance of reducing waste.
- Decrease garbage bin space capacity in the Shire and increase recycling capacity.
- Conduct audits for quantities of garbage throughout the Shire.
- Promote all recycling services offered by Mornington Peninsula Shire Council.
- Continue to organise the Clean Up Australia Day campaign.
- Promote domestic green and hard waste services.
- Move to a weekly kerbside paper collection where feasible.

6. Specific Programs Targeted for Specific Sectors in the Community

Following are the specific programs Council plans to implement to target each sector of the community in an attempt to provide a resolution to reduce waste going to landfill.

6.1 Specific Programs for the Residential Sector

Table 6.1.1

ACTION	PROCEDURES	INDICATORS	TIMING
<p>Residential</p> <p><u>Implementation green and hard waste collection service</u></p>	<ul style="list-style-type: none"> • Implement a door to door kerbside green and hard waste collection service to residents in the Shire on a user pays basis. • Devise appropriate press releases to inform the community as to what the service will entail and costs involved. • Contractor prepare flyers and Council deliver to all households on the Peninsula. • Utilise the Council's Peninsula Wide magazine to inform residents of the service. • Place displays in Shopping Centres and Customer Service outlets to deliver the message. • Formulate a Fact Sheet on Green and Hard waste to be distributed to residents through Councils customer service areas. • Utilise the media to focus on success stories regarding the new service. Positive publicity will encourage residents to utilise the service. • Involve nurseries and hardware stores in a promotion to reduce green waste in garbage bins. • Decrease the cost of disposing of green waste at the landfill site. 	<ul style="list-style-type: none"> • The amount of bookings made for each service. • The number of enquiries received. • Quantities of green and hard waste items being sent to landfill. 	<p>May 1997</p>
<p><u>Promote recycling and reduce contamination</u></p>	<ul style="list-style-type: none"> • Promote recycling activities. • Develop stickers to be attached onto each of the recycling crates to show exactly what items can be recycled. • Means of media include - press releases, leaflets, stickers on the bins, Peninsula wide and posters in public places. • Suitably manned recycling displays at shopping centres, libraries and Council Customer Service centres. 	<ul style="list-style-type: none"> • The quantities of recyclables collected from residential homes. • The amount of contamination found in the recycling containers. 	<p>August 1997 - Ongoing</p>

ACTION	PROCEDURES	INDICATORS	TIMING
<u>Reduce garbage bin capacity in the North</u>	<ul style="list-style-type: none"> • Implement 80 litre bins for garbage to the Northern part of the Shire, and provide options for larger bins on a user pays basis. • Research most effective marketing procedures to inform residents of the change in bin size. • Conduct a telephone survey to determine what residents want in the way of bin size and their willingness to pay thresholds. • Develop an education brochure to inform residents of all waste and recycling services provided by Council. • Place displays in major outlets. These consisted of the three different bins that Council will offer residents and recycling displays. 	<ul style="list-style-type: none"> • The amount of queries on the service. • The amount of coupons returned by residents to choose a larger size bin. • Number of coupons returned for selection of larger bins. • Number of queries at Customer Service. 	October 1997
<u>Implement a weekly paper collection service</u>	<ul style="list-style-type: none"> • Inform residents in the Northern part of the Shire that a weekly paper collection service will be available from 1 October 97. • Brochure to be prepared with details of Information about the paper collection. • Place articles in local papers and the Shires Peninsula Wide magazine which is sent to all residents. • Organise displays in the Customer Service areas of the Council offices. 	<ul style="list-style-type: none"> • Amount of paper that is collected. 	June - October 97
<u>Target New Residents</u>	<ul style="list-style-type: none"> • Develop an education kit of all available services regarding waste for new residents, to be distributed by Council. • Produce pamphlets on home composting methods. • To encourage residents to reduce, include Waste Wise shopping hints in all Council newsletters and press documents that focus on waste where appropriate. 	<ul style="list-style-type: none"> • Amount of new residents residing in the Shire. 	1998
<u>Target Holiday Visitors</u>	<ul style="list-style-type: none"> • Utilise real estate agents along the Peninsula to convey waste wise messages to residents renting properties on the Peninsula and residents that permanently reside in Melbourne staying temporarily. • Provide pamphlets on Council recycling services to be distributed to tourism bureaus and real estate agents. • Contact popular holiday places that cater for tourists and invite them to become Waste Wise. These include, yacht clubs, surf clubs, camping areas and caravan parks. 	<ul style="list-style-type: none"> • Number of properties that real estate agencies let especially during peak holiday season. • Number of organisations that become Waste Wise. 	1998

ACTION	PROCEDURES	INDICATORS	TIMING
<u>Elderly Citizens/Probus Clubs</u>	<ul style="list-style-type: none"> To inform members how to recycle effectively. Conduct talks regarding waste issues. Organise guest speakers eg. BHP Investigate a program that has been developed by the Brother Hood of St Laurence Engage the Mornington Peninsula Ratepayers Association to undertake projects and become actively involved in assisting members of the community to understand the importance of waste minimisation. Utilise the education caravan. 	<ul style="list-style-type: none"> Number of clubs that participate. Level of interest by the Mornington Peninsula Shire Council Ratepayers. 	1997 - Ongoing

6.2 Specific Programs for Foreshores and Public Places

The Mornington Peninsula Council operates eight foreshores and the other fourteen are operated by foreshore committees.

Each committee is responsible for the full operation of their specific site. To develop a waste minimisation program for these groups extensive liaison must occur between a representative of each committee. This representative then reports to the committee to make decisions. A proposal has currently been put forward to the foreshore groups, which will provide campers with a convenient accessible waste minimisation system. Council is now waiting for a response.

Table 6.2.1

ACTION	PROCEDURES	INDICATORS	TIMING
<u>Implement Public Place Recycling</u>	<ul style="list-style-type: none"> Obtain a copy of the best practice guide for public place recycling from EcoRecycle Victoria. Develop a standardised approach to garbage receptacles that will be displayed at public places. Choose specific areas within the Shire that would be suitable to implement a pilot public place recycling campaign. Use promotional initiatives such as displays and handouts to support this. Implement a media campaign. Monitor the effectiveness of the campaign. Extend to other areas if successful. <p>Investigate recycling opportunities for the Hastings/Sorrento/Mornington Street Festivals, Rye Gift (Running Race) and Red Hill Show.</p>	<ul style="list-style-type: none"> number of venues that would be suitable. Number of public place recycling bins. 	1998

ACTION	PROCEDURES	INDICATORS	TIMING
<u>Implement a recycling program for the foreshores</u>	<ul style="list-style-type: none"> • Liaise with appropriate foreshore committees to discuss ideas to maximise recycling at the camping areas. • Explore the idea of “Take your rubbish home”. • Liaise with Mornington Peninsula Recyclers to prepare a proposal to the foreshore committees. • Work with the Aluminum Can Group to promote Cans are Best theme for the foreshores. Prepare press releases and appropriate signage to maximise publicity for this campaign. • Install recycling cages at key foreshore locations with high visitation numbers. 	<ul style="list-style-type: none"> • The amount of foreshore committees that accept the recycling proposal. • The amount of contamination found in the recycling bins. 	1997-Ongoing
<u>Promote recycling at the caravan parks</u>	<ul style="list-style-type: none"> • Liaise Mornington Peninsula Recyclers to devise a letter informing the caravan parks of the service that will be offered and at what cost. • Send the letter to all appropriate organisations. • Collate feedback and level of interest. • Organise for the implementation of the service. 	<ul style="list-style-type: none"> • The amount of caravan parks that are prepared to participate. 	1997 - Ongoing

6.3 Specific programs for the Education Sector

Table 6.3.1

ACTION	PROCEDURES	INDICATORS	TIMING
<u>Establish a teacher resource group</u>	<ul style="list-style-type: none"> • Initiate and facilitate a teacher resource group on the Peninsula. • Develop a list of resources eg videos, local places to visit eg. landfill, EcoRecycle Schools kit and Ceres Program 	<ul style="list-style-type: none"> • Level of interest to form the group. 	1997-Ongoing
<u>Establish schools of excellence</u>	<ul style="list-style-type: none"> • Write to local schools to determine the level of interest to become involved. • Establish a school or schools that are leaders in waste minimisation. • Establish an environmental contact officer. • Organise activities for primary school aged children. • Utilise the education caravan. • Collect a variety of waste promotional materials for children. 	<ul style="list-style-type: none"> • The amount of schools that respond. • Number of teachers that become involved. • The amount of initiatives undertaken by the schools. 	1998-Ongoing

ACTION	PROCEDURES	INDICATORS	TIMING
	<ul style="list-style-type: none"> • Investigate funding for schools to allow staff from Ceres to work with teachers and help set up a wormery in schools. • Encourage schools to go on excursions to the Gould League • Utilise a video called "Talking Rubbish" • Work with Mornington Peninsula Recycling to implement display items for Schools. • Organise tours through Mornington Peninsula Recyclers plant and Enviro Mulch. • Seek funding from Rotary or other organisations to further develop waste minimisation strategies • eg. displays/recycling • new bins • videos • Pantomime • Generate a positive media campaign focused on the pilot schools and the activities that have been undertaken. • Take photos of main achievements. 		
<u>Promote recycling in schools</u>	<ul style="list-style-type: none"> • Offer and assist in establishing a recycling collection to service schools • Contact the recycling contractor to provide a quote for schools. • Write to schools to find out the level of interest. 	<ul style="list-style-type: none"> • The amount of schools willing to participate. 	1997 - Ongoing
<u>Promote Environment Week</u>	<ul style="list-style-type: none"> • Involve the Mornington Peninsula Shire Council in this event through organising appropriate displays and activities to promote waste minimisation in the community. • Organise activities that would interest school aged children that attend Environment Week. • Utilise recycling displays, videos and reading material aimed at school children. 	<ul style="list-style-type: none"> • The amount of organisations that attend Environment Week. 	March 15th - 23rd Annual Event
<u>Involve TAFE to minimise waste</u>	<ul style="list-style-type: none"> • To introduce waste minimisation ideas to the TAFE College. • Investigate how the college is dealing with waste issues. • Speak to Hawthorn Institute of Education • Investigate with other Councils works undertaken to assist TAFE Colleges. • Use the education caravan. 	<ul style="list-style-type: none"> • Level of involvement by the TAFE College. 	1997 - Ongoing

ACTION	PROCEDURES	INDICATORS	TIMING
<u>Promote recycling in childcare centres</u>	<ul style="list-style-type: none"> • Develop simple waste reduction strategies for the child care centres to utilise in their program to deliver the message of waste minimisation to the children. • Conduct a waste audit on the two Shire operated Childcare centres in Somerville and Hastings. • Aim at helping children to understand the benefits of reducing waste. • Provide children with simple tasks that can be utilised in the home to encourage participation of all members of their household. • Program already developed by the "Gordon Child Care" Centre in Geelong 	<ul style="list-style-type: none"> • The level of interest taken by the Childcare centres. • The amount of positive changes made to foster waste minimisation 	1998 - Ongoing

6.4 Specific Programs for Industry Groups

Table 6.4.1

ACTION	PROCEDURES	INDICATORS	TIMING
<u>Invite organisations to become Waste Wise</u>	<ul style="list-style-type: none"> • Write to organisations along the Peninsula to invite them to become Waste Wise and assist them to set the standard of best practice. • Ask interested organisations to make a voluntary commitment to minimise waste; undertake a waste audit; take action to reduce, reuse and recycle and monitor and review the results. • Provide organisations with a directory of local recyclers. • Present organisations with a certificate to confirm their participation in the scheme. 	<ul style="list-style-type: none"> • Number of organisations that become involved. • Extent to which organisations reduce their waste. 	1997 - Ongoing
<u>Develop a partnership with existing contractors</u>	<ul style="list-style-type: none"> • Work with and assist contractors develop an effective education campaign and ensure that they are targeted correctly. 	<ul style="list-style-type: none"> • The amount of contractors that have waste education as part of their contract. 	1998
<u>Enviro Mulch</u> To promote the mulching services provided by Enviro Mulch	<ul style="list-style-type: none"> • Liaise with Bob Green from Enviro-Mulch to be updated on any specials that are being offered. • Organise advertising for the services that are available through local papers and Council publications. <p>Speak to the PR department regarding press releases and photo opportunities.</p>	<ul style="list-style-type: none"> • The amount of people buying mulch. • The amount of people depositing green waste at the landfill site. 	1997 - Ongoing
<u>Vignerons</u> Target the Vignerons Association	<ul style="list-style-type: none"> • Approach local vineyards in the area to discuss waste issues. • Personal profile on the vineyards - Make a prominent establishment where people can look upon as a model. • Contact organisations that would be prepared to collect unwanted items produced by the vineyards eg corks or plastic buckets. <p>Write a publication to go into the newsletter that is sent out to all the vineyards regarding recycling opportunities.</p>	<ul style="list-style-type: none"> • The amount of vineyards prepared to make a commitment to becoming Waste Wise. 	1997 - Ongoing

ACTION	PROCEDURES	INDICATORS	TIMING
<u>Construction and Demolition</u> Investigate options to reduce waste generated from this industry.	<ul style="list-style-type: none"> • Investigate the potential of including waste minimisation in Councils building and planning approval processes for construction and demolition. • Investigate the potential for waste minimisation and litter reduction in housing construction. • Assist and encourage key organisations to become waste wise (ie. Builders, developers, construction companies). • Develop information materials for distribution via Council's building and planning departments. 	<ul style="list-style-type: none"> • How many planning applications are approved. • The quantity of new houses that are being developed. 	1998
<u>Retail Sector</u> Target the Retail Sector	<ul style="list-style-type: none"> • Invite some local shops from a specific area to participate in a BYO shopping bag promotion. • Develop a publicity campaign of shops in the area that promote recycling 	<ul style="list-style-type: none"> • How many shops that become involved. • The amount of shoppers that comply. 	1998

7. Litter Profile

Litter is one of the most persistent and frustrating environmental problems of cities and communities. Litter control is particularly important on the Peninsula as many businesses depend on tourism. The attractiveness of the area is a key element in encouraging visitors to the region. Council is committed to implementing an education campaign to make the public aware of the problems caused by litter and ways that they can help to reduce it.

A Visible Litter Survey was conducted by the organisation known as, Keep Australia Beautiful Victoria, in 1996. Results of this survey concluded that the most common litter sites in order were:

- Commercial
- landfill
- parkland
- waterfront
- school
- public building
- industrial
- residential

This survey also determined that the most common types of litter were

- cigarette butts
- “other paper”
- “other plastic”
- confectionery wrappers
- plastic bags/snacks & sheeting
- bottle & can tops
- tickets

Contributing factors which cause unnecessary litter offenses could be due to inadequate disposal facilities, lack of knowledge, peer pressure and an ineffective enforcement policy.

7.1 Local Litter Profile

From a study, called Keep the Shire Clean Campaign, undertaken by the former Shire of Flinders in 1992, concluded that litter sources that occur in the Mornington Peninsula Shire include:

- In residential areas, careless disposal of refuse occurs at more than half the houses. Overloading containers, uncovered containers and loose materials placed beside containers create litter throughout entire blocks.
- Similar practices and conditions prevail at more than a third of commercial properties.
- About seven out of ten loading and unloading areas are littered with wrappings, packing materials and other debris from the operations performed

there.

- Uncovered trucks and trailers create almost a fifth of the litter along roads they normally travel.
- In some communities as many as three out of four construction projects are serious producers of litter in the form of residue and workers lunchtime and snack discards.

Council operations to control litter are often obstructed by the frequent movement of items through wind, water, traffic and by animals. A proposal to change the bins on the eight foreshore areas managed by Council, is currently being considered to help overcome litter on foreshores. At present 44 gallon drums are provided for rubbish disposal during the summer period. They are not only unsightly, they emanate offensive odours and are uncovered which contributes to litter being blown away. The drums also obstruct beach cleaning making the exercise quite costly.

Implementation of the 240 litre mobile garbage bins to replace these drums will provide a more efficient means of rubbish disposal. They will be sealed preventing the litter to be strewn over the beach, and will be more cost effective. The bins will be delivered to car parks and pathways to the beach, rather than on the sand.

There are fourteen Committees of Management each responsible for fourteen foreshore areas on the Peninsula. Each committee makes their own decisions about practices that occur in their specific site. All of these committees have adopted a 'Take your rubbish home' policy. They have removed all bins from the beach. Most committees have also removed all bins from the entire foreshore areas, some have bins remaining in the car park and access areas. They have erected signs to inform the community of their policy. Figure 7.1.1 shows each area of foreshore that the committees are responsible for.

Parks Victoria have adopted a 'Take your rubbish home' policy that exists in Arthurs Seat State Park and Mornington Peninsula National Park which includes the ocean beaches from Flinders to Point Nepean, figure 7.1.1 represents the extent of these areas. The policy is still enforced even though recent figures from Parks Victoria reveal exorbitant numbers of visits to each of these destinations during the 1996/97 financial year. These are as follows:

Location	Number of Visitors
Mornington Peninsula National Park	3.18 million
Arthurs Seat State Park	61,700

One of the reasons Parks Victoria have adopted this policy is due to the enormous costs incurred for the disposal of the bins. They believe that the money they save can be better spent on other activities. A customer service officer has been employed to promote this policy and educate people to be responsible for their own waste. Signage has been erected in these areas to inform the community of their expectation. Staff will continue to be employed to conduct cleanups when required. In their leasing agreements, they stipulate that all commercial food operators must provide garbage disposal facilities near to

where the service is available, at their own expense.

It is the responsibility of Council's contractor, Transfield, to collect dumped rubbish, maintain street cleaning, empty the bins in the street and the bins located at the foreshore camping areas. Transfield are currently using best practice techniques to ensure that litter is kept to a minimum which are:

- Using closed lids on bins to avoid litter spillage; and
- Using new methods of street suction rather than the old style of street washing which inevitably pollutes our bays.

Dumping of rubbish on any road reserve is forbidden. Council attempts to enforce this problem through finding evidence of the person responsible, and taking the appropriate action. If no evidence can be found it is the contractor's responsibility to dispose of the rubbish.

Rubbish dumping seems to have increased since the closure of the hoppers located at Dromana, Flinders and Sorrento in December 1996. Council has received over five hundred reports, which Council's contractor Transfield has had to action. Council has agreed to reopen the hoppers on a trial period for six months in an attempt to reduce rubbish dumping. Careful monitoring of rubbish dumping will determine how the hoppers are helping to resolve the problem.

Clean Up Australia Day is a campaign that highlights the litter problems and seeks to engage the community in clean up programs. This annual event becomes more popular every year with more and more volunteers becoming involved. It provides an opportunity for the community to show their commitment and support for cleaning up our environment.

7.2 Specific Programs for Litter Reduction

Table 7.2.1

ACTION	PROCEDURES	INDICATORS	TIMING
<u>Devise a litter campaign</u>	<ul style="list-style-type: none"> • To devise a residential campaign addressing litter control for the Mornington Peninsula. • Involve community representatives in litter prevention. 	<ul style="list-style-type: none"> • The number of reports made to Council regarding dumping of rubbish. • The quantity of rubbish picked up and the cost of collection and disposal. 	1997 Ongoing
<u>Establish a Litter Task Force</u>	<ul style="list-style-type: none"> • Invite members of the public through local newspapers and newsletters to become actively involved with seeking resolutions to litter problems. • Organise regular meetings for the group. • Set up a hot line so residents can call and nominate hot spots that seem to be consistent problem sites. • Prioritise the list of problem areas. • Initiate strategies to combat the problems during task force meetings. 	<ul style="list-style-type: none"> • Number of members of the community that are interested in joining the task force. • The number of litter hot spots. 	1998

ACTION	PROCEDURES	INDICATORS	TIMING
<u>Identify Litter Hot Spots</u>	<ul style="list-style-type: none"> • Monitor and maintain a register of hotspots. • Photograph sites for a visual record. • Identify areas that attract litter or become litter traps. • Assess the placement of litter bins. • Assess the type of litter bins and ensure that suitable receptacles are provided. • Provide litter bins near take away food outlets. • Ensure garbage collectors actively remove litter which results from garbage collection. 	<ul style="list-style-type: none"> • The number of litter hot spots with the Shire. • The amount of rubbish that dumped. 	1997 - Ongoing
<u>Maintain Contract Supervision</u>	<ul style="list-style-type: none"> • Each garbage collection contract including the recycling contract will make provision to maintain a clean environment by cleaning up wind blown litter and spillages. 	<ul style="list-style-type: none"> • Amount of calls reporting rubbish spillage caused by contractors. 	1997
<u>Implement 240 litre wheelie bins on the Council managed foreshore areas</u>	<ul style="list-style-type: none"> • Remove 44 gallon drums that exist on Council managed foreshore areas and replace with 240 litre wheelie bins. • Place cages for the disposal of cans to promote cans are best for beaches. 	<ul style="list-style-type: none"> • Amount of rubbish strewn over the beach. 	1997
<u>Implement New Bin Containers for domestic use.</u>	<ul style="list-style-type: none"> • Implement new sturdy bins to areas of the Shire that use steel or plastic bins to avoid unnecessary spillage of garbage. 	<ul style="list-style-type: none"> • Amount of litter on the streets once the new bins are being utilised. 	1997
<u>Incur charges to litter offenders</u>	<ul style="list-style-type: none"> • Introduce fines to people that do not cover their trailers properly and cause unnecessary litter. • Provide equipment at the landfill sites that enable residents to secure their loads of garbage properly. Waive fines to those that purchase this equipment. 	<ul style="list-style-type: none"> • Number of people that do not securely cover their load. • Number of fines issued. • Number of residents that purchase the equipment to cover their loads. 	1998
<u>Utilise Local Laws</u>	<ul style="list-style-type: none"> • To ensure that a container for the disposal of wind blown builder refuse is available on building sites. • Incur fines for offenders. 	<ul style="list-style-type: none"> • Number of building sites that do not comply with the local law. 	1998
<u>Participate in Clean Up Australia Day</u>	<ul style="list-style-type: none"> • Promote Clean Up Australia Day to the community. • Write to Schools and community groups to be involved. • Contact the media to focus on the campaign. • Organise bags and gloves for volunteers. • Identify major areas of concern with litter and organise groups to concentrate in those areas. • Liaise with Council contractor to arrange for the collection of rubbish collected. 	<ul style="list-style-type: none"> • The amount of volunteers • The amount of rubbish collected. 	Annual event
<u>Use signage to promote litter control</u>	<ul style="list-style-type: none"> • Organise a competition for a sign to advocate an anti litter campaign. • Utilise the local media to advertise the competition. • Write to schools. • Identify areas where the signs should be placed around the Shire. 	<ul style="list-style-type: none"> • Number of entrants in the competition. • Number of designs suitable for use. 	1998

ACTION	PROCEDURES	INDICATORS	TIMING
<u>Implement stencil side entry pits</u>	<ul style="list-style-type: none"> • Use stencil side entry pits in key locations with an anti litter message. • Involve schools to become involved in this activity. • Identify the areas where the stencils could be placed. 	<ul style="list-style-type: none"> • Quantity of litter at locations. 	1998

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