



PUBLISHERS NATIONAL ENVIRONMENT BUREAU

**NEWSPRINT
PRODUCER/PUBLISHER GROUP**

**PLAN FOR
PUBLICATION PAPER RECYCLING**

2001 to 2005



**FLETCHER CHALLENGE
PAPER**

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INDUSTRY WASTE REDUCTION AGREEMENT

NEWSPRINT INDUSTRY

SIGNED on behalf of
the Australian and New Zealand
Environment and Conservation
Council by:

**The Honourable Sherryl Garbutt,
MLA**

Chair of ANZECC
Victorian Minister for Environment and Conservation

Senator the Honourable Robert Hill
Commonwealth Minister for the
Environment and Heritage

.....

SIGNED on behalf of the
Newsprint Industry by:

Mr Walter Kommer
Executive Chairman
Publishers National Environment
Bureau

.....

Mr David Kirk
Chief Operating Officer
Fletcher Challenge Paper (Australia)
Pty Ltd

.....

Dated on this 7th day of July, 2000

Executive Summary

This paper is a proposal to extend the ANZECC Industry Waste Reduction Agreement-Newsprint into a third period covering the calendar years 2001 to 2005.

It has been prepared by the signatories to the previous two plans, the Newsprint Producer/Publisher Group comprised of Fletcher Challenge Paper Australasia and the Publishers National Environment Bureau.

The paper reviews the success of the previous two plan periods, from 1991 to 1995 and from 1996 to 2000, and proposes enhanced voluntary guidelines for the new plan period.

There are two measurable outcomes for the new plan, these are:

- A target for the national newsprint recycling rate of 74% by December 2005, with the expectation that this will range between 70% and 74% during the plan period.
- Achieve a collection rate by the Newsprint Producer/Publishers Group of 250,000 tonnes per annum by the end of 2005.

A national newsprint recycling rate of 74% rate is ambitious and world class.

In addition most of the previous activity of the Group, including advertising support for governments of \$1,000,000 a year will be continued. Members will focus on further improving the efficiency of newsprint recycling, particularly for kerbside collection.

The Newsprint Producer/Publisher Group

The major supplier of newsprint to the Australian market, Fletcher Challenge Paper Australasia, together with the Publishers National Environment Bureau members, jointly comprise the Newsprint Producer/Publisher Group. This Group has completed two successful Industry Waste Reduction Agreements under the ANZECC process covering calendar years 1992 to 1995 and 1996 to 2000.

The Group is made up of the following companies:

- Fletcher Challenge Paper Australasia
- Publishers National Environment Bureau (PNEB)

Member companies of the PNEB are as follows:

- News Limited
- John Fairfax Holdings Limited
- PMP Communications Limited
- Marinya Holdings Pty Limited
- West Australian Newspapers Limited
- ACP Publishing Pty Limited
- APN News & Media

Report on Previous Plans

First Plan from 1992 to 1995

In the original Plan submitted on 18 December 1991, and endorsed by ANZECC in February 1992, there were two major objectives:

1. Target at least a 40% national newsprint recycling rate by 1995
2. Achieve a collection rate by the Newsprint Producer/Publisher Group of 200,000 tonnes per annum by 1995.

It was pleasing to note that the figure achieved in 1995 was 52.7%

The initiatives that led to such an outstanding result are detailed in Appendix I.

A major point relating to this period was an unexpected rise in the international price of old newsprint (ONP) during 1995. The Recycled Fibre Division of Fletcher Challenge Paper, known at that time as Kerbside Papers, stood in the market at prices in some cases well above the original floor price but was unable to collect the volumes it required. As a result the Group was unable to meet the second objective, to collect 200,000 tonnes targeted in the Plan.

The tonnage collected by the Group for the year ended December 1995 was 188,118 tonnes. Strong competition from export and packaging companies meant that demand exceeded supply so while the Group did not reach its target, the overall recycling rate in Australia was very good, and well above the Plan's target of 40%.

Second Plan from 1996 to 2000

The second Plan was endorsed by ANZECC Ministers in November 1996 and signed in April 1997. The Plan followed the same format as previously and again had two main objectives as follows:

1. Target at least a 60% national newsprint recycling rate by 2000
2. Achieve a collection rate by the Newsprint Producer/Publisher Group of 200,000 tonnes per annum by 2000.

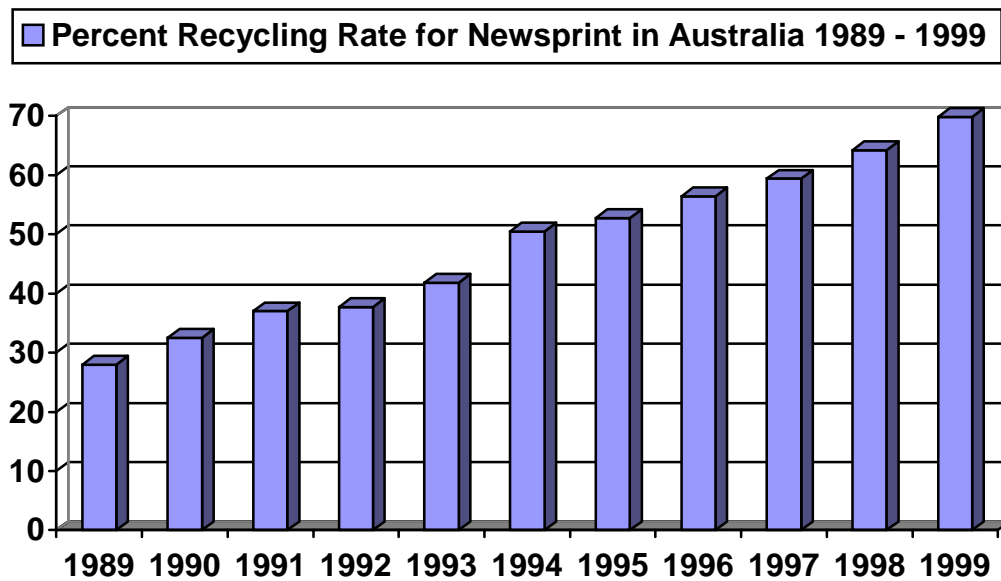
In respect of the first objective it is pleasing to note that the 60% rate was passed in 1998 with a 64% recovery rate and in 1999 the number went even higher with a 68% recycling rate.

These results continue to be outstanding and are truly world class.

The reasons for this continuing success are outlined in Appendix 2.

In respect of the second objective, the industry made a voluntary increase in the target for tonnage to be collected by the Newsprint Producer/Publisher Group. In April 1998 the Group advised ANZECC of an increase in this target to 230,000 tonnes per annum. In 1998 this new target was exceeded with a collection rate by the Group of 235,500 tonnes. In 1999 the figure was again exceeded with 231,708 tonnes collected.

A graphical presentation of the recycling rates from 1989 is shown below. Note that the 1989 rate is estimated.



Principles underpinning the Plans

The principles upon which the original Newsprint Producer/Publisher Group Plan was formulated remain largely unchanged and are valid in the new millennium. They are:

A national approach

This is critical to prevent ad hoc state-by-state initiatives leading to confusion, contradictions and administrative problems.

A national approach is also essential for obtaining adequate economies of scale and operating efficiencies

No legislation is required

The industry is voluntarily proposing a Plan format which will make mandated action unnecessary.

Market driven

The solution to the recycling issue should be market driven. Inappropriate recycling legislation or penalties may cause economic distortions which would be unsustainable in the long term.

No commingling of paper

To achieve the maximum utilisation of old newspapers and magazines back into newsprint, source separation is the preferred method of collection. It minimises contamination and cost.

We recognise that there have been changes in collection systems over the two Plan periods to date and more use of bins with mixed recyclables. Where these are sent to material recycling facilities (MRFs) with a positive sort for newsprint then reasonable returns may be possible but these will still not be as good as source separation at kerbside. In addition there will be associated higher costs for the sorting process.

Third Plan January 2001 to December 2005

Objectives

In line with the pro-active commitment the Group has made on the environment, its new Plan for publication paper recycling follows the same proven principles and methods of measurement to set new goals for the next five years, to December 2005.

The objectives of this third Plan are to:

1. Set a target for the national newsprint recycling rate of 74% by December 2005, with the expectation that this will range between 70% and 74% during the plan period.
2. Achieve a collection rate by the Newsprint Producer/Publisher Group of 250,000 tonnes per annum by the end of 2005.

These targets, particularly the 74% rate, are ambitious and world class.

Newsprint recycling rates around the world are variable. Australia's ONP recycling rate is in many ways comparable with the USA which also has big cities and spread rural populations. However, rates across the U.S.A are much more variable than the results achieved under our voluntary National recycling plan. A summary of international comparisons is shown in Appendix 3.

It should be understood that the target of 74% recovery is subject to the continued current use of old newspapers and magazines by other existing recyclers such as those in the cardboard, insulation and pulp moulding industries. Attached in Appendix 4 are figures showing details of consumption and re-use since the original Industry Waste Reduction Agreement (IWRA) commenced. As mentioned previously, there is continued strong domestic demand for wastepaper and all indications are that this demand will be maintained.

Both Amcor and Visy Recycling have expanded their recycling activities and both are signatories to the National Packaging Covenant. The Covenant is a self regulatory national agreement and signatories are required to lodge an action plan setting out the specific measures and activities that they will undertake to give effect to the Covenant. We anticipate that these plans will include a commitment to the continued or an expanded level of old newspaper use in their operations. We would see this commitment to the Covenant as the appropriate vehicle for Amcor and Visy to be involved in the continued use of old newspapers.

It should be noted again that the targeted results can only be achieved in the presence of efficient household kerbside collection systems. Fletcher Challenge Paper and the PNEB will continue to work closely with all spheres of government to target improved performance in this area.

Details of the Plan 2001 to 2005

The target of a 74% recovery rate by the end of the plan period, coupled with an expectation that the range of the newsprint recycling rate during the plan period will be between 70% and 74%, is clearly ambitious. In order to meet this objective it is intended to extend activity the Plan signatories as follows.

Publishers

- Publishers will continue to provide publicity through their various print media to promote kerbside recycling. This promotion is undertaken voluntarily by the publishers. Expenditure cannot be accurately quantified as the campaigns appear on an as needed and as space is available basis. But, past campaigns have been significant. The 1999 campaign is shown in the Advertising section of the website.
- The Publishers, through the PNEB, will continue to conduct an extensive community education program through a series of posters and fact sheets as well as video and an internet website. These will cover all aspects of newspaper and magazine recycling and other matters that relate to paper and the environment. The educational material will be reviewed annually, or as necessary, to ensure accuracy and relevance to the current situation in Australia. Samples of the 1999 material are shown in the Recycling and Did You Know? Sections of this website.
- PNEB members will continue to provide \$1,000,000 a year worth of promotional and advertising support for recycling by supplying space in their publications through the mechanism of the Advertising Space Commitment. This Commitment provides States and Commonwealth with a vehicle to promote or publicise kerbside recycling as appropriate to the particular jurisdiction, or in the case of the Commonwealth, nationally. It is intended that the space be used to educate the community on kerbside recycling of newspapers and magazines or to provide any other information which promotes proper kerbside recycling of these resources.
- The Group will continue to report annually on progress towards the year 2005 objective. This report will be made available to governments and their agencies, including local government, as well as to any other interested parties. The report will be of similar format to the reports prepared during the second Plan and will contain commentary on the dynamics of recycling as well as statistical data on a State by State basis.

- Publishers will continue to recycle pre-consumer old newspapers and magazines that are economically recoverable in line with their previous commitment. This tonnage will vary with pressroom efficiencies; changes in market size for individual publishers; and the paper basis weight used in different pressrooms.
- Increased gains from reduced consumption due to pressroom efficiencies will continue to be sought where possible.
- Paper grades used by publishers continue to change with changed market requirements. Imported magazine grades used for inserted magazines in newspapers have been replaced in many cases with improved newsprint grades manufactured in Australia. There has been interest in newsprint with a basis weight of 42 gsm (the standard being 45 gsm) for daily newspaper production and the product continues to be trialed. Manufacturing limitations and quality constraints will limit availability and suitability of this lighter basis weight but where change is possible there is a 7% saving on inputs.
- Further assistance for improving infrastructural aspects of kerbside recycling will continue to be available through the \$346,000 unspent portion of the Commonwealth Interim Support Fund as well as \$70,000 still available in Victoria.
- Publishers will assist with a proportion of funding for the Life Cycle Assessment study of recyclables being conducted by RMIT in Melbourne. This study also has funding from the Commonwealth, Victoria and New South Wales governments.

Newsprint Producer

- The sole Australian producer of newsprint is now Fletcher Challenge Paper Australasia (FCPA), formerly Australian Newsprint Mills and Tasman Pulp and Paper. The previous joint venture operating entity Kerbside Papers is now operating as the Recycled Fibre Division of FCPA.
- Effectively there is no change to the operational side of this successful collector of old newspapers and magazines. The Recycled Fibre Division will continue to be the vehicle to meet the wastepaper requirements of the mills operating in Australia. Currently, the requirement for the Albury recycling plant alone is 160,000 tonnes of old newspapers and magazines per annum. Plant efficiencies will be improved during the plan period with a view to expanding the capacity for recycling.

- With the support of the publishers, Fletcher Challenge Paper will continue to give preference to material from household collection systems. Publishers' printed waste and returns will continue to be used to supplement this as required.
- All newsprint manufactured in Australia now has recycled fibre as a component. The average recycled amount is a little over 30%, this number being based on the assumption that the recycling plant at Albury will continue to operate at capacity, it has certainly done this since it was commissioned. The design capacity is to process 160,000 tonnes of old newspapers and magazines per annum. The range of recycled component varies with the particular mill and the actual paper grade being manufactured. At present this ranges up to 40% in newsprint from the Albury Mill, and up to 20% in newsprint produced at Boyer. The 42 gsm newsprint currently being trialed uses up to 55% recycled fibre.
- There are some technical issues in having the percentage of recycled fibre rise above the current level and these are mainly based on papermill design. Some newer mills are designed to operate on 100% recycled fibre. These are mainly in Asia where virgin fibre must be imported as either woodpulp or woodchips. The constraint on increasing the volume of recycled fibre at Albury and Boyer is not technical but the capacity of the existing recycling plant. The current plant cost about \$135 million to install and fibre supply from the recycle stream, particularly old magazine grades, make it difficult to envisage an expansion of this capacity at present.
- Our industry has the strong view that it is more important to achieve full utilisation of the recycling facility's 160,000 tonnes capacity than it is to specify a particular level of recycled fibre content.

Price

In order to provide long term stability in the kerbside market, Fletcher Challenge Paper will continue to offer written long term contracts for household collected material of the appropriate quality. There is a new minimum floor price for this material of \$65 per tonne loaded on truck at depots nominated by Fletcher Challenge Paper in Sydney, Melbourne, Adelaide, Canberra and Brisbane. The price paid by Fletcher Challenge for old newspapers is tied to a formula that rises and falls based on international markets, and as such, the \$65 guaranteed floor price reflects an adequate support level having regard for market prices over time. After allowing for avoided landfill costs, an efficient household collection system should be sustainable through market lows and highs if support is provided at this level.

Floor prices for other areas will be set so as to support collections, but will also reflect transportation costs to the Albury recycling plant or other similar plants.

In the long term, the price which a paper producer can afford to pay for wastepaper and remain cost competitive is the cost of the best alternative source of fibre. In the case of the newsprint mill at Albury the alternative fibre is pulpwood residues from radiata pine plantations.

International price fluctuations during the 1990's are shown in Appendix 7. Of particular interest is the sharp spike in prices in 1995, a factor that tended to confuse the recycling industry, and particularly Councils in Australia. It can be expected that price fluctuations will continue during the period of this plan and that the steadily rising prices in early 2000 will fall again – but timing of these fluctuations are impossible to predict.

Other Discussion Points

What does the recycling rate mean?

The recycling rate as reported in Appendix 4 is the history of newspaper recycling in Australia since 1990 when accurate figures were collected for the first time. The several columns in the table mean the following:

- **Australian Consumption.** This is the volume of newsprint used by Australian publishers in the production of newspapers and related magazines. There was a sharp increase shown in 1998 when near-newsprint grades were included. It was judged that this was appropriate because most major metropolitan papers had changed from using imported light weight coated magazine paper (LWC) for supplements and had changed to the use of locally manufactured high brightness magazine grades. The volume of the high bright grades had become significant enough to include in the figures reported.
- **Used for Paperboard.** Essentially this is the volume of newsprint to make cardboard. Usually it is a part of kerbside and other collections of mixed waste paper.
- **Albury and other uses.** This is the volume recycled at the Albury mill plus that used for a number of other smaller uses, mainly ceiling insulation and pulp containers such as egg cartons. Historically the figures have been combined because of sensitivities on data confidentiality for some of the smaller manufacturers. The Albury mill uses in excess of 100,000 tonnes of ONP per annum plus about 55,000 of old magazines – OMG.
- **Export.** Commented on in more detail below. Basically this includes all exports from Australia by either paper companies or waste management companies. Some publishers waste is also exported.

- Newsprint recycled by industry. The sum of the three previous items and the basis of calculating the Recycling rate %.

Collection methods

In the early 1990s there were several different systems devised for collecting old newspapers and some of these were effective; others less so. The Newsprint Producer/Publisher Group partners believe that the most effective way of maximising collections of clean newsprint at the lowest cost is to sort at the kerbside. This means newspapers and magazines are sorted by the householder and collected separately from cardboard and other recyclables. This system is still used in many Council areas, using either bundled paper or paper placed in a dedicated crate.

The other end of the collection spectrum is the use of a split bin with putrescible waste on one side and mixed recyclables on the other. This means contamination of newsprint by not only other recyclables (cardboard and plastics in particular) but also by garbage, including the kitchen wastes that tend to migrate from the dirty side of the bin to the recyclable side. There is also a problem with misuse of this system by householders who may ignore the proper distribution and merely fill up the two sides of the bin at random. Fortunately quality considerations are now becoming recognised as an issue with this system. This system requires the recyclables to be sorted at a materials recycling facility (MRF) and therefore incurs the costs of doing this.

The evolution during the decade has been towards the use of “wheelie” bins, sometimes with an associated crate and certainly with a garbage bin for putrescibles, maybe a bin for green waste as well. A wheelie bin can be in a number of combinations with the worst choice being – from a recovery and quality perspective – the split bin described above, with garbage on one side and recyclables on the other. Next best would be a fully co-mingled bin, glass, plastics, cardboard and newspapers in one container. Better is paper and cardboard in a bin and beverage containers in a crate. Better still would be a split bin with newspapers on one side and cardboard on the other, beverage containers still in a crate. This system also requires the cost of a MRF and experience over the last few years seems to indicate that large MRFs are not as efficient as small ones in recovering clean product or maximising volumes.

There are a number of other issues with collection systems such as occupational health & safety; frequency of collection; and cost per tonne collected per annum or per household per annum. We realise that these are all important issues but wish to note that whatever system is chosen by Councils the aim should be to produce maximum volumes of clean sorted product.

Remote areas

In some areas of Australia it simply does not make economic sense to return kerbside collected newspapers and magazines to Albury for processing. Examples are Tasmania, Western Australia, Far North Queensland, the Northern Territory and even

in parts of rural New South Wales, southern Queensland and for some of the South Australian tonnage.

It is not only distance but available volume. An example is in south west Western Australia where a lot of effort has gone into collecting small volumes, about 50 tonnes per month, using backloading on newspaper delivery trucks from Perth, but this will not be practical in many areas.

From the Gold Coast and Brisbane, recycled newspapers are returned on the trucks that deliver the prime newsprint from Albury. Similar arrangements apply to the more freight logical centres of Melbourne and Sydney. In these examples the volumes are large. To expect to do the same in remote areas is not practical and as noted in the introduction to this section, the Newsprint Producer/Publisher Group will work together with local bodies and State authorities during the term of the agreement to try to find local solutions to reuse of old newspapers and magazines where this is practical.

The 26% not collected

As noted above the 74% target is a world class and ambitious goal. There are a number of factors that make this so. While part of the remaining 26% not directly collected for recycling may become a future target, there are a number of factors that make this difficult. For example:

- The widely spread rural population in Australia makes collection from those areas difficult to justify in both economic and environmental terms. Costs of collection and transportation are judged to be unacceptably high in both dollars and greenhouse emissions. However there are some rural centres where volumes are sufficient to justify collection if local processing were to be available. During the five year plan period the plan partners will work with jurisdictions to try to develop processing options in places that have unused volumes of old newspapers. North Queensland is one example of an area that may provide an opportunity for this.
- In 1991/1992 a study was conducted of 1180 households in Victoria. This was funded jointly by the PNEB and the Victorian EPA and was carried out by McLennan Magasanik Associates. The study showed that in that year
 - 55.3% of newspapers and magazines were collected as wastepaper.
 - 11.9% were taken to a newspaper collection point.

- 14.5% were disposed of as rubbish.

This gives a theoretical 82% in the households studied that could be recycled.

The remaining 19% was used for:

- lighting fires (3.1%); compost (2.4%); re-used in the house and then disposed of (4.4%); taken to work (1.4%); collected and saved (1.4%); passed to another household (2.2%); other (3%).
- Other uses are often important. In colder rural areas the use of old newspapers as fuel is common, even if a recycling service is available. In both country and urban areas the use of shredded newsprint as a garden mulch is popular. Wrapping household kitchen waste is also common and in some areas has become institutionalised – Ballarat has a new “greenwaste” service that will include “Kitchen food scraps (wrapped in newsprint)”. There are many other household uses for old newspapers that effectively take this product out of the recycling stream.
- Contamination during the collection process is also a factor that reduces the volume able to be recycled. The plan partners will work with jurisdictions on this issue. The collection and sorting systems in use in Australia are continually evolving and the proper choice of these is important to the recovery rate.

Exports

There has been some comment that wastepaper exported may not be recycled but sent to landfill at their destination. For Australian exports of old newspapers this is simply not true unless the exported product is excessively contaminated. Newsprint and mixed waste paper are both exported and the newsprint in particular finds ready markets for making new newsprint in countries like Indonesia, Malaysia, Thailand and Korea. Mixed waste paper is converted to cardboard products, also in SE Asia and China. Australian old newspapers are a valuable raw material for the paper makers of the region and provides them with an alternative source of supply to material from USA and Europe.

The Role of Local Government

In most cases, ratepayers want to recycle. Some local bodies do not support recycling, mainly in areas that are marginal in terms of tonnage and distance from ports or recycling plants. The 74% target does rely on most local governments continuing to offer recycling services at the household level. Should household recycling utilising kerbside collections fall away, for whatever reason, then the target

will become very difficult to achieve.

Paper Mill Closures

As the graphical and tabulated figures show there is a strong demand for old newspaper for the manufacture of various other grades of paper and paperboard in Australia. Visy has even developed a lining paper for fibrous plaster wallboard that depends on a newsprint component.

There are, however, some old paper mills in Australia, particularly Amcor mills in NSW at Botany and Shoalhaven. If managements decide to rationalise during the period of this Plan, and a Botany mill closure has been speculated for some years, then there may be a temporary setback to the progress towards a 74% recycling rate. Export markets will be available for clean sorted ONP but where collections are of mixed waste paper there may be some delay in finding a solution.

New Mills

On the positive side there may be a scenario during the Plan period where new newsprint capacity is installed in Australia, either Albury or at a new mill. This would put positive pressure on collection systems and perhaps change the economics of collecting paper in remote areas.

We see wastepaper quality as a key to future expansion. Any expansion of domestic newsprint production capacity will require old newspaper and magazines collections capable of delivering wastepaper of sufficient quality.

Greenhouse Issues

It should be recognised that significant reductions in greenhouse gases have been attributable to old newspaper recycling in Australia. Savings in excess of 64% have been made at the FCPA's Albury newsprint mill. The main factor has been the reduction in energy required to pulp old newspapers and magazines, which is one sixth of the energy needed to pulp trees.

Carbon sequestration rates applying to forests are controversial. An argument being developed at present is that using more recycled fibre allows carbon sequestration in forests and that this may be a significant factor in reducing greenhouse gases in terms of the requirements of Australia's obligations under the Kyoto Protocol. While most of the benefits are calculated to come from better collections of waste office paper (Seattle is the model for the current work) there will be positive pressure on collections of all waste paper to maximise reuse and to leave forests to grow.

General Economic Factors

There is no doubt that current economic activity in both Australia and the world is healthy. This means strong demand for the products made from recycled fibre and a strong incentive for the material to be collected.

Some of the products being manufactured, particularly paperboard, are in demand in Asian countries and our competitiveness is helped by a relatively weak Australian dollar. This will undoubtedly be a feature of change in the Plan period, certainly we expect a downturn in current strong prices for clean sorted ONP to more normal historical levels.

It is difficult to be definitive about the effects of these economic issues but they are worth mentioning in the context of a product that is traded internationally and which is subject to general economic rules in the same way as any other raw material.

Mid Term Assessment

The intention of all parties is that this plan and its principal objectives will run until December 2005. It is recognised however, that national priorities relating to kerbside collections, waste management, and the environment in general will evolve during the period of the plan. It is also acknowledged that the aggressive targets set by this plan for the recycling and collection of newsprint are nearing maximum levels where further improvements in recycling practices alone are only likely to result in small additional reductions in waste newsprint.

It is therefore proposed to hold a Strategic Assessment in the latter half of 2003 to reassess factors relevant to newsprint recycling and identify emerging opportunities for reducing the environmental impact of the newsprint industry as a whole beyond the recycling framework.

The strategic assessment of newsprint issues would:

- Report on the progress of the Newsprint Producer/Publisher Group in meeting the objectives of the plan.
- Examine the general climate surrounding the newsprint recycling industry in Australia.
- Identify changes in attitude in the community to newsprint waste management in general and in particular to kerbside recycling.
- Identify any changes of direction and focus that may enhance the performance of the plan against its current recycling objectives; and,
- Investigate the feasibility of additional environmental objectives based on lifecycle and product stewardship mechanisms, beyond the recycling framework for the next plan.

It would be helpful to have government input to the first objective and the parties note

that there is a statutory requirement for States to carry out an annual audit of the packaging sector under the provisions of the National Environment Protection Measure for Used Packaging Materials. If this audit could be extended by Governments to include newsprint it would form a useful basis for comparison with the collection rates reported by the Newsprint Producer/Publisher Group. For the review in 2003 it is intended that audits for 2002 be the basis of the comparison.

Industry Structure

Like other industries at this time, the paper industry is in a dynamic state of evolution. This includes ownership of the Fletcher Challenge Paper mills and the nature of contracts between Fletcher Challenge as the producer and publishers as users. Members of the Group are confident that these issues will be resolved and will not delay the implementation of this plan from 1 January 2001.

Appendix 1

Summary of achievements during the First Plan Period 1992 to 1995

The major activity from both publishers and newsprint producers occurred during this first Plan period and laid the foundation for a successful Industry Waste Reduction Agreement to be extended once and, we believe to be extended again to 2005. The two suppliers were Australian Newsprint Mills (ANM) and Tasman Pulp and Paper of New Zealand. As noted in the body of the report these companies merged to form Fletcher Challenge Paper Australasia.

The major initiatives undertaken by newsprint producers and publishers to achieve the targets set in the original Plan included:

Australian Newsprint Mills

Australian Newsprint Mills (ANM) established a de-inking and recycling Plant at the Albury mill, and upgraded the paper machine to accommodate recycled fibre. The project was completed in two stages and cost more than \$134 million. Stage 1 of this project commenced operation at the end of 1993. Stage 2 was officially opened on November 17, 1995. As a result an additional permanent market was created in Australia for 160,000 tonnes per annum of old newspapers and magazines.

Originally the project was planned to process 130,000 tonnes of waste paper. This was subsequently increased to a total capacity of 160,000 tonnes. This increased processing capability meant that Albury was able to produce recycled pulp for shipment to its sister mill at Boyer in Tasmania, thus allowing for paper produced at that mill to also have a recycled fibre component.

Although by world standards the start up of the Albury recycling facility was excellent, the added complexities of running recycled content impacted negatively on Albury's operating performance by at least 6,000 tonnes per annum, about \$6 million to the year ending 30 June 1996.

Kerbside Papers

Kerbside Papers was formed as a joint venture by the newsprint producers (ANM and Tasman) in order to secure the fibre supply for ANM's recycling Plant and to help meet the commitment by the Newsprint Producers/Publishers Group to target the collection of 200,000 tonnes of old newspapers and old magazines from the waste stream.

Kerbside Papers had a major impact on the traditionally volatile and short term wastepaper market by being the first company to offer long term written contracts (5

years at the time) with a guaranteed floor price. Notwithstanding the fairness of this approach Kerbside Papers found that some contracted suppliers diverted tonnes to export as soon as the export price exceeded the contract price. A further problem was the preference by many councils and collectors to collect mixed waste and accept a lower price from recyclers other than the Albury mill.

Kerbside Papers forged very strong partnership arrangements with a number of waste collectors and local councils

The unprecedented growth of the export market during the period of the Plan meant that Kerbside Papers was forced to raise its prices in line with market expectations.

In the period July 1 1992 to December 31 1995 Kerbside Papers paid more than \$13.1 million to purchase old newspapers and magazines. In addition \$8.6 million was spent to sort, bale and transport this material to the de-inking facility at Albury.

In 1995 the cost penalty to the company to use recycled fibre in place of pine thinnings was \$5 million. Kerbside Papers also incurred export losses to the end of June 1996 of almost \$5 million.

Kerbside Papers effort in procuring wastepaper for the Albury mill was commendable, especially in view of the strong demand for old newspapers on the export market and the competition domestically from packaging companies which have a long tradition and history in the market place.

PNEB \$6 million Interim Support Fund

The PNEB \$6 million Interim Support Fund (ISF) was established to provide assistance to Commonwealth and State governments the area of recycling newspapers and magazines until the ANM recycling facility came on line. In some states, major support went to councils to help maintain kerbside collections systems and export markets. Other States chose to help industries establish recycling projects in regional and remote areas which would not be economic markets for the major recycling activities such as de-inking or packaging.

Support of nearly \$300,000 was also given to Australian Paper and Visy Recycling under an increased production subsidy scheme.

Publishers Advertising Space Commitment

An Advertising Space Commitment Programme was introduced in July 1993. Publishers offered, annually for three years, \$1 million of advertising space in their Publications. This was for the use of governments at all levels to promote kerbside recycling. The scheme was well received. Some governments took up their allocation in full each year; rather unexpectedly some did not.

Publishers also undertook their own national advertising campaigns to promote the recycling of old newspapers and magazines, and to provide extensive community education campaigns through brochures, posters, a video and a website on the internet. Printed material was distributed to schools, councils, all levels of governments, environment groups, the media and the general public. It is interesting to note that the national advertising campaign elicits a steady stream of requests for further information. The PNEB also sponsored the Waste Watchers program for Keep Australia Beautiful.

Samples of advertising carried out during this period are shown in Appendix 7.

Paper cost

Paper, along with wages, is the single biggest cost in producing metropolitan daily newspapers and magazines, and consequently publishers work constantly to minimise their use of newsprint and magazine papers. During the Plan period publishers in Australia invested close to two billion dollars in the latest, state of the art printing presses which are still at the cutting edge of world-wide publishing technology.

Australia is one of the first countries to move to general use of the lighter 45g/m² newsprint weight, a saving of 7.8% over the traditional 48.8g/m. Other measures taken to reduce paper consumption included increasing the reel diameters which reduces the number of reels used and results in less stripping waste, less core waste and fewer paper breaks.

Improved paper handling techniques virtually eliminated damage during transport from the paper mill to printing presses. The total investment in these improved handling systems by publishers and producers is more than \$70 million. Circulation and distribution systems are constantly monitored to ensure minimum waste while achieving maximum sales.

Long term newsprint purchasing agreements

Publishers signed long term newsprint purchasing agreements with ANM, for paper with a recycled content, at a time when cheaper paper was available on the international market. This ensured a market for the final recycled product and enabled ANM to finance the recycling facility.

Mill environmental initiatives

ANM undertook many environmental initiatives at both its Albury and Boyer mill sites.

At Albury, ANM committed to total off-river discharge for all treated process water used at the Plant by the end of 1996. The water is used to irrigate a \$10 million pine Plantation that has been established next to the mill. The sludge from the de-inking process is mixed with other wood wastes, and is much sought after by local farmers for use as a soil conditioner.

At Boyer, over \$20 million was spent on upgrading the effluent treatment Plant.

Appendix 2

Summary of achievement during the Second Plan Period, 1996 to 2000

The second Plan period saw a continuation of most of the activity initiated during the first Plan. Most of the capital expenditure had been completed during the first Plan period at both the producing mills and publishers, although some smaller publishing sites installed new, modern high speed presses during the second Plan period. There was therefore a fine tuning of systems, particularly to improve sorting of kerbside collected material and transportation to the Albury mill. Despite these improvements source separation by householders remains the most effective in terms of maximising volumes and minimising collection costs.

Fletcher Challenge Paper: Operations

Fletcher Challenge Paper substantially increased the efficiency of the Albury recycling Plant to first meet and then exceed the installed capacity. This has given the mill ability to increase the use of recycled fibre in newsprint produced at the mill.

Despite the significant technical difficulties encountered at the Albury and Boyer mills in making newsprint with increased recycled fibre content, recycled fibre production and usage increased during the term of the second plan.

The move to lower basis weight newsprint has provided the opportunity to utilize the positive fibre properties of recycled fibre and higher recycled fibre content newsprint is being trialed.

The delivery of wastepaper to the Albury mill is now completely integrated into the total the total distribution system and wherever possible the wastepaper back load is matched to a forward load of newsprint. This enables wastepaper to be delivered to the mill from distances that would otherwise be too expensive to sustain.

By utilising the Recycled Fibre plant at Albury at maximum capacity FCPA has been able to increase the recycled fibre content of light weight paper out of Albury Mill and they have sent significant tonnes of wetlap recycled pulp for inclusion in the Boyer Mill fibre furnish.

FCPA are now able to confidently produce newsprint with relatively high recycled fibre content to the exacting standards of the modern, high speed printing presses that dominate the Australian newspaper publishing industry.

Having established recycled fibre operations it is now very important that the supply of wastepaper continues to match the operational requirements of the FCPA mills. It is now necessary to ensure that a constant supply of suitable quality wastepaper at sustainable cost is maintained.

Fletcher Challenge Paper: Recycled Fibre Division

During the Plan period there was a progressive and vigorous drive to improve transportation methods and economics of the kerbside collection system.

There were also a number of changes in collection and sorting facilities, in Sydney and Melbourne in particular. The market was, and continues to be, very dynamic.

Despite the volatility of the wastepaper market Fletcher Challenge Paper Recycled Fibre Division has managed to steadily grow its collections during the second plan period.

All contracts have been honoured and all contracted suppliers have had the benefit of the FCPA floor pricing policy that has stabilised prices and maintained a predictable and constant price to waste collectors and the local government entities who have employed them to carry out household collections of recyclables.

FCPA's policy of collecting wastepaper at levels in excess of their mill's needs has enabled contracted suppliers to continue supplying without fear of mill demand disrupting their ability to dispose of collected waste paper. The key to the stable uplift ability is the exporting of surplus collections as they occur into the Asian market.

Despite the Asian crisis FCPA continued to sell all tonnes collected in excess of their mills requirements to established markets in Asia. The presence of a viable outlet in Asia for marginal volumes is critical to the long term stability of the Australian paper recycling industry. FCPA therefore puts a great deal of effort into supplying wastepaper to its own mills as well as ensuring export markets remain viable and open to buffer mill demand and seasonal supply fluctuations.

Maintaining the supply of the required quantity of suitable quality wastepaper to the Albury mill at acceptable cost while offering collection stability has been and will continue to be the key objective the FCPA Recycled Fibre Division.

Volumes and Prices

Collection systems in main metropolitan centres had gone through a steep increase in participation rates and coverage during the first Plan period and the effects of this became apparent at the beginning of the second Plan. The result was a surplus of collections over the ability of the traditional markets to absorb the volumes available.

Other factors then became an influence, particularly the Asian financial crisis, where market demand slowed dramatically, where there was a sharp reduction in prices paid for old newspapers (ONP) from artificial highs in 1995 (See Appendix 7).

The export market is a useful safety valve for ONP sales and during 1995, during high

paper prices, the volume exported totalled about 166,000 tonnes. This volume dropped to the mid 60,000 range in the two subsequent years.

Part of the problem with collections during 1995 was that there was an offshore market for mixed waste paper where sorting was not required to achieve high prices. From 1996 the world market price for mixed waste paper was negative and a “paper mountain” accumulated, particularly in Melbourne and Sydney. The solution to this was to sort a significant proportion of the mixed waste and to export the newsprint component, although this was still at a loss in some cases, at least in the first two years of the second Plan.

Currency factors were also important because world prices for ONP are usually expressed in \$US. In late 1996 the \$A was equivalent to about \$US0.80 so returns in \$A were poor. Fletcher Challenge Paper estimated losses on export markets of \$1 million in 1996 alone and by the end of 1997 had accumulated trading losses from exporting amounted to over \$7 million.

In 1998, through sorting mixed waste and better attention to collection methods, newsprint exports returned to a level of about 115,000 tonnes.

The most important lesson here is probably that ONP has a market through the cyclical highs and lows at the waste paper commodity market while mixed waste does not. By contracts mixed waste usually has a negative value in the frequent downturns of international markets.

PNEB \$6 Million Interim Support Fund

Expenditure continued against the balance of this fund and it is anticipated that there will probably still be some funds available at the end of the Plan, in December 2000. In the first Plan period there was expenditure mainly on ensuring viability of the kerbside system and on developing new uses for old newspapers.

There was some expenditure during the plan period on some of the new projects looking for uses of old newspapers, specifically on vermiculture; production of pallet components; and the production of pelletised stock food. There was also a change in direction for the funds remaining in both Commonwealth and Victorian allocations. The Commonwealth handed management of its remaining allocation back to the PNEB with a proviso that approvals be given to projects that improved the infrastructural aspects of recycling old newspapers. Accordingly funds were allocated to:

- Tasmania:

Construction and installation of equipment to sort and bale kerbside material for export for Phoenix Recyclers, Hobart

Purchase of paper fluffers and conveyors plus a forklift to prepare material for export for Jamiesons Trading, East Devonport

- South Australia

Purchase and installation of a weighbridge at a new MRF constructed for the North Adelaide Waste Management Authority.

- Queensland (Beerwah)

Installation of a concrete slab to keep recycled paper dry and clean so free from contamination.

In Victoria, the funds in this programme are administered by EcoRecycle Victoria. In the early part of the plan period expenditure there was expenditure on a range of items, including preparation of artwork promoting recycling and for printing of recycling calendars for Councils. There was also part funding for a Melbourne based survey of efficiency of the kerbside collection system for all recyclables.

In the move to supporting infrastructural changes and improvements in system efficiency there were several projects that received funding:

- Ositech Pty Ltd
Development of a bin weighing system to be used as a mobile facility at small recycling depots.
- Aspex Paper Australia
Development and installation of equipment to achieve better loading of trucks with old newspapers.
- Australian Paper, Amcor Recycling
Conversion of three paper collection vehicles to a 60:40 split bin system to allow separation of newsprint and cardboard at the kerbside.
- Melton Recycling Centre
Conversion of a collection truck to separate newspapers and cardboard.
- Smart Distribution Pty Ltd
Construction of aluminium trailer gates to improve load efficiency of trucks travelling to Albury. O H and S aspects also improved.

At the time of preparing this report there is approximately \$372,000 in the

Commonwealth portion of the fund. There is also an unallocated sum available in Victoria of \$70,576.

Publishers Advertising Space Commitment

This programme continued during the second Plan and is \$1 million per financial year, allocated to jurisdictions on the basis of newsprint consumption. The sum is given as free advertising space and some very useful campaigns and publicity have come from this initiative.

As with the first Plan, some jurisdictions have not taken advantage of this free advertising space.

PNEB National Advertising Campaigns

Publishers continued to conduct their own national advertising campaigns aimed at increasing public awareness of recycling for old newspapers and magazines. Because of the obvious success of the recycling effort since the early 1990's, the 1999 campaign had a theme that said:

“Thank you your paper recycling is working”

Copies of the 1999 advertisement campaign are shown in th Advertising section of this website.

PNEB Community Education Programme

This continued during the period of the Plan and targeted schools, governments at all levels including local government, and members of the general public. Printed material was revised annually and now comprises

- A brochure titled “50 Fast Facts, Recycling Old Newspapers and Magazines”.
- A poster titled “Old Papers to Newspapers”, which depicts the recycling process at the Albury Mill.

Print runs for these two items are typically 150,000 per annum of each and bulk orders, for classroom use, are common.

A video explaining the recycling process is also freely available and has been bulk copied several times during the Plan period to meet demand.

The PNEB website was rebuilt in 1999 with a wealth of information on paper

recycling, including useful statistical information on newsprint recycling in Australia over the period of the Industry Waste Reduction Agreements.

A new display stand was constructed during the period and is used at trade shows and some community fairs.

A version of the display stand, reduced in size, has been made available for permanent display.

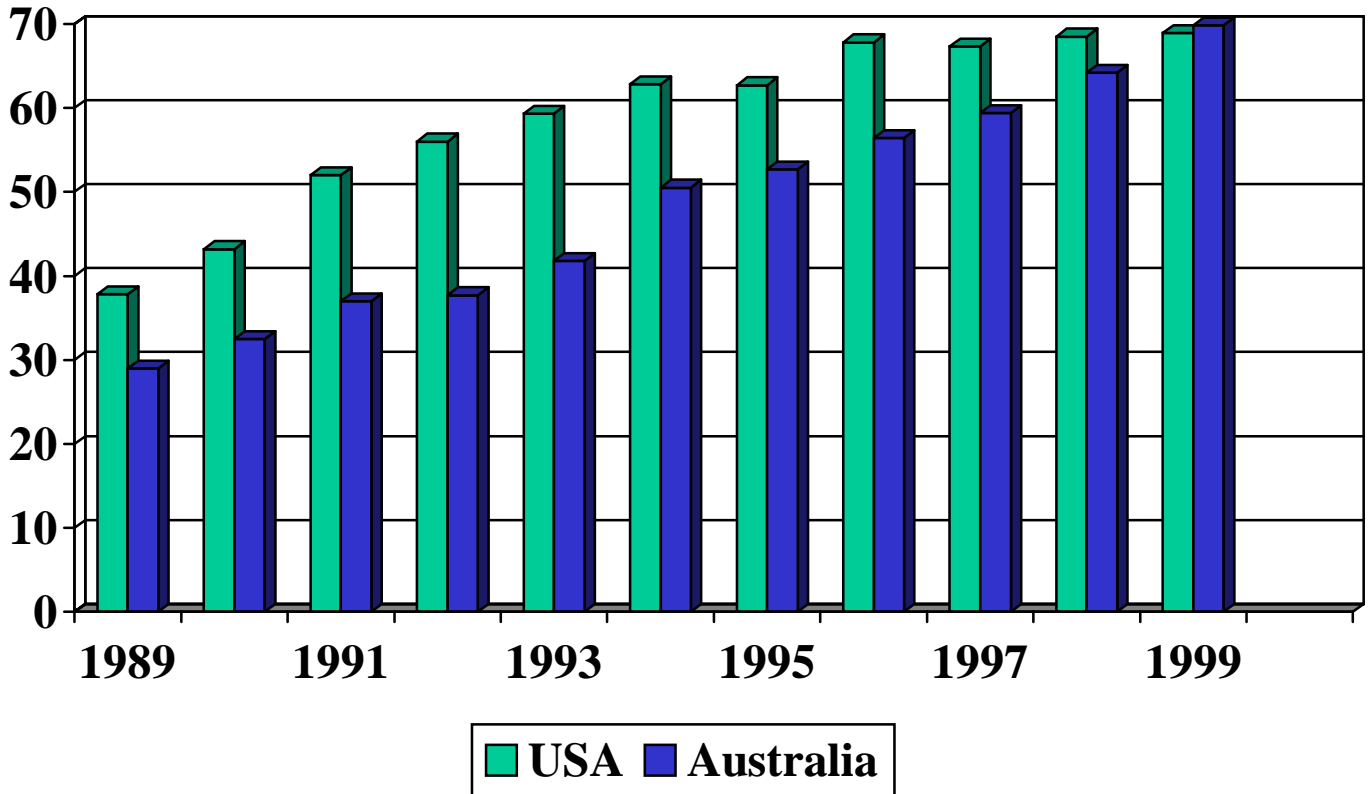
Other Activity

There has been a range of other activity at a State level, some of the items include support for:

- Kerbside recycling studies
- Life cycle assessment study
- World Environment Day
- Keep Australia Beautiful
- Environmental and waste management conferences
- Planet Ark's National Recycling Week
- Specialist State based recycling management committees

Appendix 3

International Recycling Rates



Sources : American Forest & Paper Association; PNEB

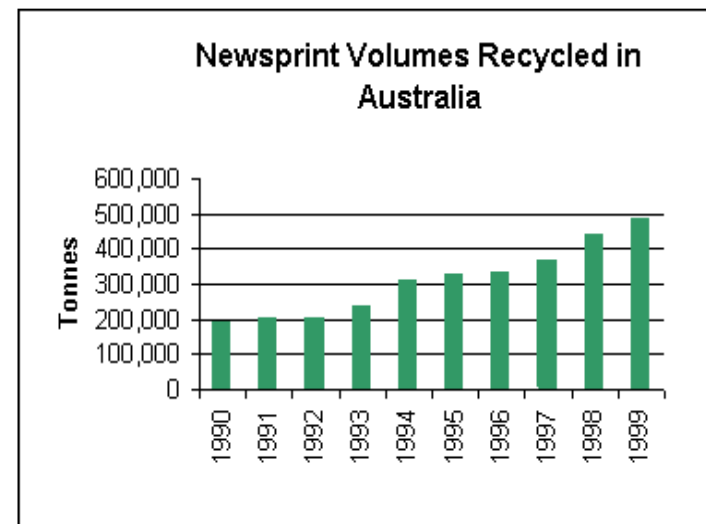
European rates are difficult to determine because the industry collects figures for all paper and board. As a general rule, collection rates tend to be in the 50% to 60% range.

Appendix 4

Newsprint Consumption and Recycling in Australia

Historical Summary

Calendar Years	Australian Consumption	Used for Paperboard	Albury & other uses	Export	Newsprint recycled by industry	Recycling rate
1990	598,000	91,068	31,150	72,137	194,355	32.5
1991	550,000	125,568	44,600	33,427	203,595	37.0
1992	535,000	120,100	37,900	43,800	201,800	37.7
1993	567,000	101,670	30,053	105,139	236,862	41.8
1994	618,056	99,250	84,415	128,455	312,120	50.5
1995	620,500	126,900	83,910	116,117	326,927	52.7
1996	590,277	139,323	125,879	67,573	332,775	56.4
1997	618,246	166,300	135,362	65,825	367,487	59.4
1998	690,239	182,520	146,193	114,558	443,271	64.2
1999	702,151	201,911	140,884	147,249	490,045	69.8



Notes

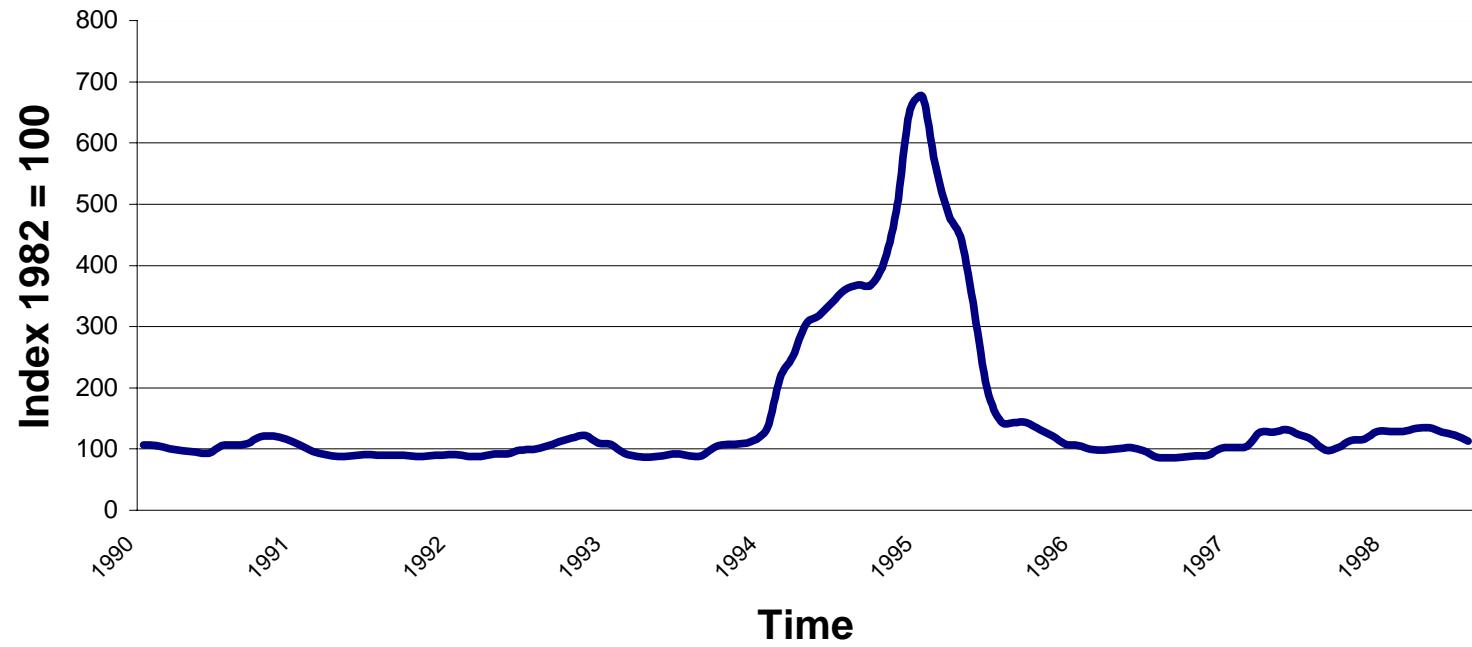
- 1 Albury mill recycling plant started Stage 1 in 1993 (December but ONP required in advance); Stage 2 started at end 1995 (November).
- 2 Other Uses include insulation and pulp trays. Albury also uses magazine grades not included here.

Source: Publishers National Environment Bureau

PO Box 5359, Sydney 2001, Australia

Appendix 7

ONP prices in the USA



Source : US Bureau of Labour Statistics