

REPORT TO THE LEGISLATURE

TELEPHONE DIRECTORY
RECYCLING MATERIALS STUDY

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JUNE 1994



STATE OF CALIFORNIA



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TELEPHONE DIRECTORY RECYCLING MATERIALS STUDY

EXECUTIVE SUMMARY

Senate Bill 1066 (Dills, 1991) requires the California Integrated Waste Management Board (Board) to conduct a study of the feasibility of requiring that all telephone directories issued or sold in the state be made of materials that allow maximum recyclability, and to report the results of the study to the Legislature. The statute also requires the Board to include a finding as to whether recyclable materials are currently available that could be used in the manufacture of telephone directories. It also establishes a series of four directory recycling goals from 1994 to 2000 which, if not met, require the Board to develop strategies to meet the goals.

Recycling Rate

As published in the Board's Annual Report, 45 million tons of refuse were generated in California in 1993. The Yellow Pages Publishers Association (YPPA) reported that approximately 28,000 tons (0.05 percent of the California waste stream) of old telephone directories (OTD) were distributed in California cities and counties with directory recycling programs and were potentially available for recovery from those areas. Of those 28,000 tons of OTD, 3,600 tons, or 13 percent, were reported recycled in 1993. (Note: YPPA members publish approximately 95 percent of the directories distributed in the state). In addition, as OTD are collected for recycling, an unquantified amount become a component of the mixed waste paper stream and cannot be quantified with amounts reported recycled. Using information received from representatives of YPPA and Pacific Bell on OTD tonnages distributed in California it was calculated that directories represent 0.4 to 0.6 percent of the total California waste paper stream of 14 million tons. Although a seemingly insignificant portion of the waste stream, it was stated by a Pacific Bell representative that directories can comprise up to 2.4 percent of the total waste paper stream when OTD are discarded during distribution of new editions. The distributions of new directories tend to occur in surges that last from four to six weeks.

Collection Programs

A number of collection programs throughout the state were reviewed to determine if unique criteria make for a successful program. Methods of recovery in these programs ranged from dropoff sites, to collection by students, to curbside service. A directory collection program could be considered successful if it is diverting OTD away from valuable landfill space. In measuring established directory recycling programs in

California against the recycling goals of the statute (SB 1066) there appeared to be a mix of those that achieved or exceeded the initial goals and those that did not. Of the local (or regional) directory recycling programs reviewed, the percentage of directories recovered ranged from approximately 12 percent to an overall high of 46 percent.

It initially appeared, from discussing collection programs with individuals contacted, that even with a truly involved and recycling aware community, the highest percentages of directory recovery would be obtained through curbside collection (as in San Francisco), with lesser percentages achieved through other types of collection programs. Least effective are the commercial sector and rural programs. Rural areas are often without well-established recycling collection infrastructures for materials other than those with a high scrap or redemption value and are often located at greater distances from potential markets. The costs of separate rural directory recycling programs can often exceed the costs of regular refuse collection.

Markets

Potential markets for recovered directories exist where an industry or end user can process the fiber into new products. A few of the products that can be produced from OTD are: new directory paper, hydroseed mulch, insulation, ceiling tiles, livestock bedding, fruit pads and shipping envelopes. None of the potential markets in the state were identified with the capability to de-ink directories to produce new directory paper. All others utilize directories to produce one or more of the above noted products. Two local markets that produce some of these products were identified in the Central Valley area of the State. The current regional end-user of the majority of directories collected from California is the Daishowa America paper mill in Washington state, which de-inks the directories to produce new directory paper. The Board is working toward improving mixed waste paper markets in California, which should help to improve directory recycling rates.

Barriers

Barriers to effective collection and recycling of telephone directories include:

- inconsistent or cyclical supply;
- difficulty in organizing effective collection programs concurrent with distribution of new editions;
- a lack of funds to operate local collection programs;
- high transportation and handling costs; and

- weak recycling markets for collected directories.

Findings, Recommendations, and Strategies

A number of strategies that could be considered to achieve state goals for telephone directory recycling are outlined under the following findings and recommendations. These strategies include some steps the Board has already undertaken to expand waste paper markets. They also stress the need for partnering with established directory recycling programs, expanding those programs, and initiating new programs where none currently exist. The development of coordinated regional programs could be encouraged in rural areas to achieve economies of scale and overcome geographic barriers and inefficiencies in rural collection and hauling. The collection of directories from commercial facilities needs further refinement and greater participation on the part of building owners and managers. Commercial recycling of OTD could be expanded even further if haulers could be assured of breaking even on their costs.

The following strategies could be implemented whether required by statute or not. Their implementation should be based on accurate determination of levels of directory distribution, recovery rates, and participation in directory recycling programs.

Finding (1): The study finds that publishers, following the materials guidelines of YPPA produce approximately 95 percent of all directories published for California and that these directories, manufactured with recycled materials, are completely recyclable. It also finds that recyclable materials, which do not adversely affect durability or increase productions costs, are currently available for the production of telephone directories. Despite this, complete recycling is hampered by contaminants introduced by directory publishers who do not adhere to the YPPA material recyclability guidelines. This could be addressed by requiring all directory publishers to follow the same material guidelines for the production of environmentally-compatible directories. It would also increase the value of recovered directories by eliminating nonrecyclable directory contamination from recovered loads and thus ensuring that all directories are recyclable (re-pulpable).

Recommendation (A): (Note: The following suggested guidelines are derived from current YPPA Environmental Committee Action Plan Guidelines.) Amend **PRC 42557** to read "On and after January 1, 1995, all publishers distributing telephone directories in the state shall adhere to the following guidelines:

Closed loop recycling: Support the paper-to-paper concept as the highest value added and best use of old directories while continuing to search for new uses consistent with the goal of minimizing any associated solid waste impacts.

Source Reduction: Support the practice of reducing materials utilized in the manufacture of directories by: utilizing lower basis weight text stock, decreasing

the size of directories through redesign or technology, minimizing any required packaging, and minimizing warehouse salvage in order to minimize the materials contained in directories, the materials and processes used for producing directories, and associated manufacturing waste.

Dyes: Use dyes which do not impede recycling.

Incidental Papers: Use incidental papers that do not impede recycling

Coatings: Use coatings which do not impede recycling.

Covers: Use cover papers that do not impede recycling.

Inks: Use inks that do not impede recycling."

(Note: See Materials Section for descriptions of these materials.)

Finding (2): Given the estimated directory recycling rate of 13 percent statewide for 1993 programs, the recovery goals specified in PRC 42554 for 1994 and beyond may not be easily met. Directories recovered separately during recycling programs are usually accounted for and can be reported as a percentage of recovery determined against amounts distributed. Directories recovered in curbside during programs, and those recycled outside of organized recovery programs, cannot easily be accounted for because they are often included with the mixed waste paper stream and are not sorted out. It was stated at the Board's Directory Recycling workshop that as much as 30 percent of all OTD might be recovered in this manner. Data to support this figure was unavailable. If that estimated 30 percent figure is added to the documented 13 percent recovery reported by YPPA, the State would already be meeting its 40 percent recovery goal for the year 1998. Organized local or regional directory recovery programs have had varying levels of success in the state, with recovery rates of up to 46 percent.

Recommendation (A): Develop methodologies, or assist in improving existing methodologies, for more accurately tracking numbers of directories recycled so the Board can determine if policy goals are being met.

Strategy: The Board could develop methods to more accurately determine participation and recycling rates for OTDs not collected in dedicated directory programs. This could include sampling of curbside and other mixed waste paper streams.

Strategy: The Board could assist with improvements in, or evaluate, reporting on tonnages distributed and recovered in all areas of the state in order to arrive at a more accurate assessment of state program achievement. Reporting could be done directly to the Board, to an independent third

party, or to YPPA. YPPA currently works closely with its members and other industry associations in maintaining an established industry database.

Finding (3): Economies of scale notwithstanding, there are additional costs associated with increasing directory recycling rates because the costs of directory collection programs usually exceed revenue from the sales of the recovered materials. The adoption of additional strategies, such as those outlined in Recommendations 3A through 3D below, could be considered for meeting policy goals noted in PRC Sections 42555 and 42556. These two sections require the Board to make recommendations to the Legislature on strategies for meeting the goals, if the goals of the statute are not met for the target years of 1995 and 1999. These strategies again focus on fostering partnerships comprised of telephone directory publishers, distributors or mills, and local governments. Sustainable directory recycling markets require a consistent, uncontaminated, supply of directories. Under existing market conditions, getting regional pulp mills to buy more collected directories will require decreased transportation costs or continued transportation support by directory manufacturers, mills, or distributors. Successful directory recycling will also require a diverse mix of additional local markets.

Recommendation (A): The Board should encourage all directory publishers and distributors to follow the lead of Pacific Bell Directory (Pacific Bell) and Daishowa America Company, Ltd. (Daishowa) in supporting the costs of transporting directories to the Daishowa mill or other appropriate end-users (until markets dictate otherwise). Additional regulatory requirements are not recommended at this time; they are likely to adversely impact existing or developing directory recycling infrastructures.

Recommendation (B): Continue to develop and improve mixed waste paper markets and markets for directory grades in accordance with the Board's adopted Waste Paper Market Development Plan. (See section VI. Markets, Board Mixed Waste Paper Recycling Plans)

Strategy: Use the Recycling Market Development Zones to attract new and expand old directory end-users and link them to directory collection systems so they will have a sustainable feedstock. The creation of additional local markets will also help decrease costs of transporting directories to markets and the costs of collection programs.

Recommendation (C): The Board should take a leadership role in: developing directory markets; assisting industry, recyclers, and local governments in the coordination of collection programs throughout the state; and assisting in establishing, expanding, and maintaining a clearinghouse of telephone directory distribution/collection programs. This should help lower program costs by: improving the economies of scale through increased amounts of directories collected; keeping recyclers and potential markets more fully informed on collection programs; and improving the consistency of supply of directory feedstock for markets.

Strategy: Support and encourage improvement in directory recycling partnerships among haulers, collectors, non-profit organizations, publishers, and end-users, in order to organize more efficient directory collection programs in those areas of greatest directory distribution.

Strategy: Encourage development or improvement of directory collection programs for commercial facilities and businesses where no programs exist or where current programs are underachieving.

Strategy: Encourage the directory industry to expand collection and dissemination of information on successful directory recycling programs and assist in developing models or guidelines for successful programs.

Strategy: Encourage the directory industry to expand on, and utilize fully, existing directory recycling program infrastructures.

Recommendation (D): The Board could, if the statutory goals for 1999 are not attained, evaluate alternative sources of funding, in addition to publisher or government support, to support directory recycling programs.

Strategy: Evaluate additional methods to achieve the goals, such as initiating fees on directories and utilizing other enforcement measures.

I. INTRODUCTION

A. STATUTES

In 1991, the California Legislature passed, and the Governor signed into law, Senate Bill 1066 (SB 1066). SB 1066 (Dills, Chapter 9.5, Division 30, Title 30, statutes of 1991), (Appendix A) is codified in Sections 42550 et seq. of the Public Resources Code (PRC). PRC Section 42550 defines a telephone directory as a directory listing the calling numbers of telephones located in the state of which 1,000 or more copies are distributed to the general public. The statute requires the Board to:

(1) conduct a study of the feasibility of requiring that all telephone directories issued or sold in the state be made of materials that would allow for the maximum volume of directories to be recycled;

(2) report the results of the study to the Legislature and include a finding as to whether recyclable materials are currently available that could be used in the manufacture of telephone directories; and

(3) if the report finds that it is indeed feasible to require that recyclable telephone directories be produced, without significantly reducing their durability nor significantly increasing production costs, then PRC Section 42553 triggers Sections 42557 and 42558, discussed below.

PRC Section 42557 directs that all telephone directories distributed in the state be made of materials that will allow for the maximum volume of directories to be recycled (as determined by the Board). This requirement also includes a State goal that existing waste paper recyclers make an effort to accept telephone directories for recycling, if reasonably feasible. This requirement would be joined by PRC Section 42558, which would require the Board to adopt general guidelines regarding materials that may be used in directory production and that will advance efforts to recycle directories.

PRC Section 42554 establishes State policy goals that specified percentages of distributed directories be recycled after certain target dates:

- 30 percent after January 1, 1994;
- 35 percent after January 1, 1996;
- 40 percent after January 1, 1998;
- 50 percent after January 1, 2000.

If the Board determines that the above percentage goals are not being met after the above noted dates, the Board must make recommendations to the Legislature by January 1, 1996, and again by January 1, 1999, on strategies for achieving those goals.

The Board's 1993 *Annual Report* indicated that 45 million tons of refuse were generated in the state. More than 49 million directories were distributed in California during 1993, according to the Yellow Pages Publishers Association (YPPA). Based on directory distribution information for 1993 collection programs (28,000 tons, as reported by YPPA), and deducting tonnages of directories reported as recovered for recycling (3600 tons), it was calculated that these directories comprised .05 percent of the 45-million-ton California waste stream. (Appendix B).

B. METHODOLOGY

With the exception of articles in a few periodicals, few resources in the form of published studies, references, or other investigations of directory recycling are available. As a result, it was determined that creating a study methodology required consultation with telephone companies, YPPA, publishers and printers, public agencies, haulers, and recyclers. To assist in the data gathering, the Board sponsored a workshop January 21, 1994, with representatives from all of the above sectors attending. Information derived from the workshop was intended to be the cornerstone of this report.

Contacts and personal communications with industry experts were expanded to develop

additional information from the directory recycling community. Additional literature searches were conducted. A survey was also sent to selected individuals in advance of the workshop to obtain additional information and to expand data collected. The collected material was analyzed and conclusions were drawn from the data.

II. PROBLEM

A. Inaccurate Reporting and Quantification

Directories are collected and distributed for only brief periods during the year. The potential for recovering the greatest number of old directories is during the period when new editions are distributed. A number of barriers to accurately accounting for recovered directories were discovered during the study. Directories recovered separately from other wastes during a directory recycling program can usually be counted. Directories recycled into the mixed waste paper stream can be counted only if they are subsequently separated from the mixed paper. If they are not separated, they cannot be counted, and yet they are still recycled. Directories recovered during periods outside organized directory recycling programs usually dribble in over the course of the year in small amounts. They are also usually recycled into mixed paper; again these are not counted unless separated out of the mixed paper stream. Examples of the dilemma of inaccurate accounting can also be seen in the following discussion where different sources of information may be in conflict.

B. Low Recycling Rates

Although directories may comprise a .05-percent fraction of the total California waste stream, they are perceived to be a problem when it comes to their recyclability. These perceptions are caused by several key factors:

- 1. High visibility:** Telephone directories have a high visibility. Their use, especially the yellow pages, is heavily advertised and the public is reminded of their existence on a regular basis. Directories are also highly visible because they are seen almost every time the telephone is used and because of their size.
- 2. Low collection/recycling rates:** Telephone directories are perceived to have low recycling rates because people have historically thrown them away upon arrival of the replacement edition(s). In reality, their reported 13-percent recycling rate is greater than for some commodities such as HDPE containers (6 percent) and yard waste (8 percent), but much less than for commodities such as PET containers (18 percent) and aluminum cans (58 percent).
- 3. Perceived problems with the recyclability of directory materials:** In the past it has been commonly understood that OTD could not be easily repulped to

produce new directory paper because of the adhesives and dyes used, and because of plastic covers and other contaminants. While no longer totally correct, this perception has been retained by a significant portion of the recycling public. There are a number of mills that can now accept these "nonrecyclable" old directories, and there are a number of other industries that can use OTD as a raw material feedstock to produce various products. Plastic materials, however, continue to be a contaminant in nearly all cases except where the end-use may be as a fuel.

C. Collection Programs

There is a conspicuous lack of consistency in regard to organized collection programs. In some areas of the State they are well organized and have been operating for up to eight years; in other areas they are nonexistent. Organized directory collection programs typically occur during the period of distribution of new editions. If organized directory collection programs are unavailable, most directories will go into the mixed waste paper stream or be disposed of. The new directory distribution periods are usually targeted by program organizers as the most cost effective and best opportunity to easily recover the greatest number of old directories. It is during these relatively brief periods that OTD can account for an estimated 2.4 percent of the solid waste stream. Collection programs usually involve several methods or strategies to: 1) motivate the consumer to recycle his or her old directory; 2) recover and consolidate the directories for economies of scale; and 3) locate markets willing to accept the collected directories.

Collection difficulties in the commercial sector include:

- restricted access to docks and storage space;
- the fact that it is easier to dump directories into mixed waste or mixed paper and remove in one load instead of separated loads (see San Francisco, below);
- the labor intensive nature of collection; and
- low recycling participation rates by commercial sector building managers/owners.

D. Markets

In recent years markets for OTD have been very weak. Some collected directories have been exported to Pacific Rim countries to be used for various products such as fruit wrappers and the production of low-grade papers. Old directories have recently been utilized in California by a few local markets to produce a number of products such as

hydroseed mulch, insulation, fruit pads and padded shipping envelopes. At the current time Daishowa is the only major mill in the western states that de-inks, or repulps, OTD to produce new directory paper. Most directories collected in California are currently shipped to this mill and the amounts continue to increase. The mill does have excess capacity to use directory feedstock but because of current low values of recovered directories and Daishowa's location in northern Washington state, collection programs and freight still require subsidy.

III. WORKSHOP

On January 21, 1994, a workshop was sponsored by the Board to address OTD recycling and the requirements of SB 1066.

Workshop attendees represented a cross-section of industry involved in OTD recycling (Appendix C). Attendees were invited to address the questions posed by the statute and by Board staff, to provide information and to help establish a base position on OTD recycling for the Board. The answers to the five basic questions posed and the attending discussion were distilled into the following:

1. **How can it be demonstrated that the materials used in the majority of telephone directories distributed in California are, or are not, recyclable?**
 - More than 95 percent of the directories distributed in California are distributed by YPPA member publishers who adhere to the YPPA guidelines for environmentally compatible directories. These directories are fully recyclable and do not require any changes in materials to improve their recyclability.
 - It is the end market and the uniformity of the recovered material that ultimately determine recyclability.

2. **How can the Board show that recyclable materials that meet the durability and production cost requirements of directory publishers are, or are not, available for the manufacture of telephone directories distributed in California?**
 - As previously stated, more than 95 percent of the directories distributed in California are recyclable and the majority of materials available and now in common use to produce those directories are recyclable. (The paper utilized for directory manufacture in California falls under minimum recycled content newsprint requirements [see Directory Materials, Section IV, Paper], and is required to be utilized in all directories)

- Recycled content directory paper is as printable and tends to exhibit higher strength than virgin stock.

3. What are the barriers to recycling telephone directories and what are the possible solutions?

- OTD are not included in most curbside collection programs.
- Collection programs are short (two weeks to six weeks) and not ongoing.
- Not all directories are collected during the collection program. Directories continue to dribble in after programs end and are recovered as mixed waste paper.
- There is a lack of public education on collection and recycling programs.
- There is a lack of local markets for recovered directories.
- Haulers lose money on the collection programs.
- There are high local transportation costs from the collection point to a processor.
- There is a lack of knowledge concerning available haulers, recyclers, and markets.
- OTD are not included in a paper grade and are more difficult to market as a waste paper. (See paper, Materials Section)

4. What are barriers to hauling?

Note: Most of the attendees present distinguished between, "hauling" as usually local collection and transportation, and "freight" or "freighting" as out-of-area transportation to a mill or other end user from a central collection or consolidation site.

Hauling

- Zoning restrictions may prohibit convenient bin placements.
- Additional processing is costly; the less the material is handled the more cost effective the program will be.

- OTD is a difficult commodity to handle, because it can't be easily baled and hand loading of trailers is difficult.
- There is a Lack of full loads at collection points.
- Decentralized collection programs add to the costs.
- Some haulers won't accept directories collected by other haulers.
- Directories are not normally integrated into the mixed waste paper stream, which increases collection and processing costs.
- Flow control problems stifle collection and hauling procedures.

Freight

- There are too many diverse collection programs throughout the state for one waste paper recycler or publisher to pay transportation costs.
- Full freight loads are needed to meet economies of scale and compete with higher revenue freight.
- Freight costs are too high compared to the value of the resource.
- The least handled bulk loads are best (cheapest) and loose loads are preferred by mills because they are the easiest to handle.
- There tend to be high load contamination rates.

5. How can the Board best quantify amounts of OTD collected and recovered?

- YPPA could provide quantities distributed by member publishers and quantities reported by the members as collected for recycling for areas where programs exist. The information is based on approximately 95 percent of all directory production.
- Data on collection of OTD is difficult to reconcile because OTD are often lost from the recycling collection stream and are recycled as other paper grades.

- If YPPA statistics cannot be used, the Board must determine all end-users accepting California OTD.
- If YPPA statistics cannot be used, or the Board needs to verify YPPA statistics, those haulers that collect OTD must be determined.

Additional Comments Received After the Workshop

- The State should consider requiring all manufacturers to conform to YPPA guidelines since more than 95 percent of directory production is done by companies that voluntarily follow the guidelines and their goal is environmental (recycling) compatibility.
- The State should not upset already developed, or developing, directory recycling infrastructures with new requirements or regulations.
- The key to maximizing recovery of directories will be to expand, improve, and enhance programs already established or under development.
- Participation of all manufacturers in the state in collection programs should be required.
- Hauler involvement with collection programs and their problems should be improved.

IV. DIRECTORY MATERIALS

In its *Environmental Committee Action Plan* (1993), YPPA sets forth technical guidelines that:

- establish specific member goals for the use of directory paper with recycled fiber;
- set the standards for members' publications;
- establish additional processes to maximize the environmental compatibility of directory production;
- focus industry support on developing a method of providing technical assistance for research on dyes, inks, adhesives, and coatings as well as collection, market development, and industry training;

- recommend that association members and other publishers become proactive in the use of quantities and percentages of recycled papers and fibers to impact market forces that are shaping the demand for recycled content papers;
- attach importance to the guidelines because nonrecyclable directories, if commingled with conforming recyclable directories, will contaminate the entire load, regardless of their percentage of the total, and significantly degrade the value of the load;
- support the paper-to-paper concept as the highest and best use of OTD while continuing to search for new uses consistent with the goal of minimizing any associated solid waste impacts; and
- support the practice of reducing materials utilized in the manufacture of directories by: utilizing lower basis weight text stock, decreasing the size of directories through redesign or technology, minimizing any required packaging, and minimizing warehouse salvage. These practices will result in a reduction in the materials that may be landfilled, in the materials contained in the directories themselves, and in the materials and processes required for producing directories.

The following recommended material guidelines follow the YPPA guidelines for environmentally-compatible directory materials. Directory paper must, however, adhere to current California law governing minimum content newsprint requirements as noted below:

Paper: Require all consumers of directory paper who distribute directories in California to adhere to California minimum content newsprint standards (PRC Section 42750 et seq. [AB 1305, Killea, 1989, recodified in Division 30, Part 3, Chapter 15, PRC by SB 937, Vuich, 1990]). The standards require that a minimum of 40 percent of recycled content newsprint be utilized by consumers (in California) of the paper and that the tonnage amounts of recycled content consumed shall increase bi-annually from 30 percent after January 1, 1994, to 50 percent after January 1, 2000.).

Dyes: Use dyes that do not impede recycling. Recommend publishers continue exploring other options to yellow dye, including bleachability and alternative coloring systems. The yellow dye currently in use by most yellow page directory paper mills is nontoxic and bleachable in milder nonchlorine bleaching agents such as sodium hydrosulfate. The recovered paper would, however, have to go to mills that would be able to process the dye in their de-inking process. Other end-users may be able to utilize the directories without any special processing. The use of white paper for the classified sections of directories has been suggested.

Incidental Papers: Use incidental papers that do not impede recycling. Incidental papers are usually found in special sections or inserts and are usually bleached groundwood, coated groundwood, or groundwood free. All of these papers are recyclable and, in the case of the coated papers, the coatings often assist with deinking capabilities.

Coatings: Use coatings that do not impede recycling. Cease use of solvent-based, laminated, plastic, and UV coatings in favor of water-based varnishes. The nonwater based coatings impair the recyclability of directories and should not be used. Coatings are often added to improve durability or appearance.

Covers: Use cover papers that do not impede recycling. The cover paper used in most directories is a Southern bleached Kraft, a strong fiber paper with a clay and latex coating. Coatings can be selected that can enhance cover quality and appearance without encumbering recyclability.

Adhesives: Use adhesives that do not impede recycling. There are currently two adhesives in use in the manufacture of directories, a water soluble gelatin and a non-water soluble hot melt. The properties vary significantly according to YPPA. A single adhesive that meets the requirements of every recycler does not yet exist. The technology currently exists to recycle directories containing either type of adhesive depending on the requirements of the recycler or end-user. The Daishowa mill, for example, can handle either type of adhesive in its de-inking process but, because of its advanced technology, prefers the hot-melt type of adhesive.

Inks: Use inks that do not impede recycling. Inks are carried by either a vegetable or petroleum-based oil. The vegetable-based oils are more environmentally compatible and are more easily degraded. Current de-inking capabilities can accommodate either, however. Most inks in use by directory printers are considered nonhazardous by the U.S. Environmental Protection Agency and YPPA recommends that publishers require the use of nonhazardous inks by their printers. (Note: because of the typically thinner paper used in directories there is proportionally more ink to remove from old directory paper than from newsprint and this requires more de-ink processing, chemicals, etc., in the production of new paper.)

V. DIRECTORY COLLECTION PROGRAMS

This section provides examples of several collection programs in California and describes general characteristics of programs in four other states. The amounts of directories distributed and collected are from the latest available reports and the percentages of recovery were calculated from that information. The figures include combined

residential and commercial recovery, even though the percentages recovered from the commercial sector are consistently less than residential collection. Most directory collection programs in California involve a combination of some type of partnership with community or volunteer organizations, a directory publisher or telephone company, and a recycler or hauler, and in a few cases a local end-user.

Sacramento:

Tons Distributed: 2,186.
Tons Recovered: 876 (including 174 tons collected by the Board from State facilities).
Percent Recovered: 40.

A regional program is organized yearly by a consortium of representatives of State government, three counties, several cities, the two major telephone companies serving the area, the media, a large grocery chain, a hauler, and for 1994, a local end-user who could process all of the collected directories as a raw material in its manufacturing process. The latest drive was organized for January 1994 and consisted of a pre-drive media campaign advising the public of the program and when and where to take their directories. The campaign was organized with grocery chain stores as dropoff sites for the public. The hauler would pick up the directories at the markets and transport them to the local end user. Commercial customers with large numbers of directories could: collect and self-deliver the directories to the end-user; contract with their normal refuse hauler for delivery of the directories to the end-user; or do nothing and include them with office refuse.

During the regional program the Board organized and coordinated the collection of directories at state agencies and facilities in Sacramento. The regional program collected 854 tons of directories; the Board collected 174 tons of directories from State agencies; and the County of Sacramento collected 22 tons of directories at county facilities. For information, Contact Doug Eubanks, County of Sacramento, (916) 855-5665.

San Francisco:

Tons Distributed: 2,658.
Tons Recovered: 1,222.
Percent Recovered: 46.

Now in its eighth year, one of the most successful directory collection programs is conducted in the City of San Francisco. The City's residential directory recycling campaign is quite successful, achieving a respectable 56 percent recovery rate compared to the overall 46 percent rate noted above.

The program is preceded by a public education and media blitz and is conducted as part of the in-place curbside recycling collection program. Less effective, however, is the collection of directories from the commercial sector (approximately 19 percent), particularly from the many highrise buildings in the city. Logistics of commercial collection are more difficult and the hauler must charge businesses for the pickup of directories on site. The per ton fee collected from commercial clients was \$35 and the cost to the hauler was \$74, leaving a net loss of \$39 per ton. In many cases it is more cost effective to the San Francisco commercial customer to recycle the directories with mixed waste paper or newspapers or dispose of them with building refuse. Similar difficulties could be anticipated for most major urban areas. For information, contact David Assman, City of San Francisco, (415) 554-3400.

San Diego:

County 1992: 20 percent recovered

City 1992: 500 tons recovered, distribution figures not available.

Collection rates were not available for the County; a program was not operated last year because of lack of publisher sponsorship. The City program was underway at the time of this report and current figures were not available. The programs were held in previous years but, because of the city and county size and because there are several distributors delivering at different times, several recycling programs are conducted.

One example of a San Diego program is a project organized with an independent directory distributor in the North county area in conjunction with the distribution of their new directories. The program operated in partnership with eight local communities and Thrifty Drug stores. The distributor subsidized the directories at \$15 a ton so that a local recycler would take them. In addition, \$20,000 was spent on promoting the event. To get people to recycle organizers used the incentive, "get an ice cream cone at the drug store if you bring in your old phone book." The current City of San Diego program is being supported by PacBell and utilizes a combination of curbside and dropoff, with most of the directories going into curbside collection, not being sorted out by the hauler, and recycled into the mixed waste paper stream. For more information contact City: Jerry Davenport (619) 492-5019, County: Trish Ferrand (619) 974-2629.

Monterey County:

Collection rates not available for previous years.

Monterey County runs a six-week program that begins in May. The program, now in its fourth year, is operated in a manner similar to the Sacramento campaign. It includes the

participation of a directory publisher and is focused on dropoffs at the stores of a local grocery chain. The area covered includes the Monterey peninsula, the City of Salinas, and parts of Santa Cruz. Organizers of the upcoming (May 1994) program are considering exclusion of rural area participation because of excessive transportation costs. The program has had problems in the past with load contamination, and directories dribbling in after the collection program ended. Organizers have been working with the directory distributor on a plan for year-round participation in an effort to solve the problem. There are no local end-users for the directories. For more information, contact Curt Hunter (408) 755-5425.

Sonoma County:

Tons Distributed: 778
Tons Recovered: 124
Percent Recovered: 16

The collection program was organized county-wide as a joint community effort and involves Pacific Bell, the Sonoma County public works department, private haulers, and local recycling centers. The program utilized a combination of curbside collection and dropoff at 11 recycling centers throughout the county. An insert was included in the distribution of new directories advising residents and businesses of the program dates and what steps to take to recycle their outdated directories. It also included a hotline number that could be called for additional information. For more information, contact Paula Magyari (707) 527-3587.

City of Visalia:

Tons Distributed: 240
Tons Recovered: 30
Percent Recovered: 12.5

The City sponsors the program through the schools by running a contest. Each participating school receives \$20 plus a penny for each book collected. Prizes of \$100, \$75, and \$50 are awarded to the first, second, and third place schools that collect the most directories. Directories may also be deposited in newspaper drops at any of the city's six recycling dropoff boxes around town. The directories collected at the schools are picked up by volunteers using personal vehicles and taken to a city corporation yard where they are consolidated into 30-yard containers before being hauled by city crews to a local end-user.

Of all California programs surveyed, the City of Visalia program was the only one in which an accurate accounting could be made of directories collected because each

directory was counted for prize purposes. The program collected 19,777 directories (about 30 tons) and the city spent about \$2,400 for advertising and prizes. These costs do not include city and volunteer labor, expenses, or transportation to the local end-user. The city calculated that approximately 105 cubic yards of space was saved by keeping the books out of the city-owned landfill. This landfill space savings could likely be determined much more valuable than the funds expended for the collection program. For more information, Contact Linda Herman, City of Visalia (209) 738-3247.

Other States

Directory recovery in other states in 1993 as reported by YPPA ranged from 0.84 percent in Washington, D.C. to 63.0 percent in Oregon, with a national average of 17 percent. *As with California, the figures shown cover only those areas with reporting programs and would likely be much lower if the rest of the state were factored in.* Only eight states were reported to have directory recovery levels above 30 percent. The four states with the highest rates of OTD recovery were surveyed to see what unique characteristics their directory recycling programs might exhibit, if any. The top four reviewed are: Indiana (43 percent), Nebraska (41 percent), Oregon (63 percent), and Wisconsin (48 percent).

Contact with individuals in these states determined that the programs are as diverse as in California. The programs surveyed were organized primarily around local dropoff sites, with some curbside collection in areas providing the service. Central warehouse dropoff was also available for commercial facilities and for larger quantities. The recovered materials were sent to both local and out-of-area markets. In general, dropoff programs may work as well or better than curbside collection programs. The advantage to dropoff programs is that the books can be collected in homogeneous loads, while from curbside collection they must usually be sorted from newsprint or mixed paper, if at all. The advantage to curbside is that it is very easy for the customer. The key to successful directory recovery in these states seems to be in the well-organized partnerships set up for recovery programs; the methods of collection were similar. This information was particularly interesting in view of the fact that San Francisco's successful program was based on curbside collection and it had been assumed that a successful program would require curbside service.

Nebraska

Rank in size:	16
Population:	1.5 million
Recovery rate:	41 percent

There is little if any state government involvement. The major population concentration in the state is in the Omaha-Lincoln corridor where three telephone companies provide

service. Programs are organized and advertised by the telephone companies and publishers and are operated in partnership with local food market dropoff sites and haulers. In the Lincoln area the directories contain a hotline number for information on all types of recycling. Businesses and state agencies take their books to a central warehouse location and residents have a choice of six market dropoff sites. The program in the Omaha area, in its fourth year, is coordinated by the counties and is run in a similar manner to that in Lincoln. Directories are collected in Gaylord containers at 13 market dropoff sites, including two sites in Council Bluffs, Iowa. It was stated that a few years ago the Omaha City Council had considered a \$.75 cent tax on directories to help solve the recycling issue but it was not enacted because the telephone companies worked cooperatively toward effective recovery programs. The programs in the cities and surrounding areas exhibit generally good public and commercial participation, although it was stated that more work needs to be done on commercial participation. Some of the directories are utilized in the local area to produce a livestock bedding material; the bulk is freighted to the Daishowa mill in Washington state.

Indiana

Rank in size: 38
Population: 5.5 million.
Recovery rate: 43 percent

In this program the directory publisher takes the lead in organizing the partnerships required to recycle directories during a six-week collection period, targeting the Indianapolis metropolitan area. The directories are collected at market dropoff sites in Gaylord containers paid for by the publisher. A softdrink company participated with the last program and hauled the directories from the markets to a central consolidation site where they were transferred to regional markets, including a paper mill in Ohio.

Wisconsin

Rank in size: 23
Population: 4.9 million
Recovery rate: 48 percent

The directory publisher takes the lead in organizing local partnerships to recycle directories during the distribution period of the new edition, again targeting the major metropolitan areas. Four recycling sites were used in the City of Milwaukee; an additional 35 dropoff sites were used in the surrounding counties. Seventeen of the communities in the area have curbside recycling service with some utilization for directory recovery. The recovered materials go to a local paperboard industry.

Oregon

Rank in size: 9
Population: 2.9 million
Recovery rate: 63 percent

Oregon state law requires that directory publishers provide opportunities for directories to be recycled. The directory recycling program in the Portland metropolitan (Metro) region, a three county area, is now in its ninth year and is organized by a committee of partners representing publishers, mills, local market dropoff sites, Girl Scouts, haulers and recyclers, and local governments. In 1993 the program expanded to 50 dropoff sites (up from 40 in 1992) and involved 40 haulers. A major component of the program includes an involved and cooperative public education campaign and a contamination prevention program. The tonnages collected over the years have generally increased except when markets were insufficient. Program tonnages over the past three years are reported to have increased dramatically with the participation of publishers, a large local food market chain, the Girl Scouts, and the opening of the Daishowa mill, as well as other market opportunities.

VI. MARKETS

Depressed paper markets, cyclical supply, contamination of loads, and high costs of handling and transportation have made the marketing of recovered directories difficult. It was noted during the workshop held by the Board that directories can be utilized to produce just about anything that can be produced from newsprint or similar recovered fiber. It was also noted that more local end-users need to be developed. Local markets can keep transportation costs down and benefit local business and industry by keeping resources in the community.

Directories are delivered to mills for repulping into new directory paper and for the production of paper products such as boxboard and fiberboard. Directory fiber is used as a raw material for the production of cellulose insulation, hydroseed mulch, shipping pads/packing, ceiling tiles, boxboard, directory paper, wallboard backing, paper towels and tissues, corrugated medium, fuel pellets, livestock bedding and cat litter. Actual end user markets lack diversity and are unevenly located throughout the state.

Past years have seen many directories sent to export markets in Pacific Rim countries where they were used as fruit wrappers, incense papers, or made into cardboard. In California there are several end-users who utilize directories as a feedstock in their manufacturing processes. Two examples of local end-users are Fiberwood, a company that produces a hydroseed mulch (applied as a slurry spray to areas that need slope stabilization or reseeding), cellulose insulation, and a fiber product for asphalt pavement sealers and IVEX Corporation, which produces packaging and shipping materials for

agricultural products. Another example, though not in California, is a company that utilizes approximately 2 million pounds of old directories per year (received under transportation subsidy from the large regional phone company) to produce ceiling tiles.

Barriers to Directory Recycling/Recovery Markets

- Markets are weak and thus do not drive collection.
- It is inconvenient for the customer (this can be improved with expansion of curbside programs instead of central dropoff, although central consolidation is needed for load consolidation to obtain lowest haul costs—see San Diego collection program).
- Haulers prefer not to separate directories from curbside collected mixed paper.
- There is a need for more/better public education.
- There is a cyclical supply of directories.
- There is a lack of more diverse local markets.
- There is a need for a waste paper grade for directories.

The Institute of Scrap Recycling Industries (ISRI) Board recently approved changing telephone directories from specialty grade 27S, to a full grade, 23. This change became effective on February 10, 1994, and is defined as follows: consists of clean, dry telephone directories printed for or by telephone directory publishers. Prohibitive materials: none permitted; total outthrows may not exceed 0.5 percent. The establishment of this grade gives industry a foundation specification to work with, provides a specification for consuming mills, processors, and packers, and should promote better marketing of OTD.

YPPA developed a National Directory Distribution Database (a compilation of all directories distributed in the nation by state and county) that is available to provide information to local recycling programs on distribution dates, quantities, and tonnages in advance of planned collection efforts. The YPPA *Recycling Directory End User Database* provides market information to publishers, solid waste officials, municipal recycling centers, and environmental organizations to assist them in locating markets for outdated directories. The CIWMB has provided supplementary information to this database, with names of additional firms in California that may accept OTD for recycling (Appendix D). An additional goal also under development by YPPA will address the need for economically-viable collection systems for directories and the development of secondary markets.

Board Mixed Waste Paper Recycling Plans

Since paper represents nearly 29 percent of the California waste stream and has a diversion rate of approximately 21 percent the Board has identified waste paper as a priority material for which to develop additional markets. This market development activity is evident in the Board's Waste Paper Recycling Plan entitled, *Meeting the Challenge, A Market Development Plan for California*, March 1993, which was prepared in response to the California Integrated Waste Management Act of 1989. It is also seen in the staff report *Options to Increase Demand for Old Corrugated Containers and Postconsumer Printing and Writing Papers Generated in California*, as presented to the Board's Market Development Committee, November 1993 and again, in the Board's December 1993 Report to the California Legislature, *Recommendations to Increase Recycling of Mixed Paper Generated in California*.

The Board is currently working to achieve the four market development goals for mixed paper, as outlined in the report to the Legislature, by undertaking the following activities.

- Increase market demand for mixed paper recovered in California.
 1. Provide Recycling Market Development Zone loans to end-users of mixed paper, such as Fiberwood, Sutta Company, and Badger Forest Products, with a current total of \$390,000 in active loans.
 2. Work with the Trade and Commerce Agency's "Red Team" to provide assistance to proposed paper mill developments in meeting environmental standards and moving smoothly through the State permitting process. The Red Team is comprised of representatives of local and State regulatory agencies who are convened by the Trade and Commerce Agency to assist project proponents in addressing all permit and environmental requirements from the inception of the projects.
 3. Establish Industry-Wide Paper Utilization Goals. On December 15, 1993, the Board established nonmandatory interim goals for the paper industry to utilize 40 percent of the paper generated in California by the year 1995, and utilize 50 percent of the paper generated by the year 2000.
 4. Establish a Paper Recycling Advisory Committee. The Board plans to establish a multi-disciplinary Paper Recycling Advisory Committee as a continuation of the upcoming market development workshops for mixed paper (see last two items). The Advisory Committee will focus on identifying recycling problems and proposing solutions.

- Increase market demand for recycled-content products made with mixed paper.
 1. Complete a report profiling the recycled paper industry. This report, prepared by Cal Recovery, Inc., includes identification of barriers to increasing demand for recycled-content products and makes recommendations to the Board on methods to overcome those barriers. The report is presently in preliminary draft form and will be presented to the Market Development Committee on completion of a survey of U.S. distributors of recycled-content papers (see next item).
 2. Conduct a survey of U.S. paper distributors to assess market share, quality, price, and availability of recycled-content papers. This survey is in draft form and will be mailed out soon.
 3. Work with the Buy Recycled Business Alliance of the National Recycling Coalition to provide more information to private and public procurement officials about the availability of recycled-content products

- Promote the development of efficient local mixed paper collection and use.
 1. Conduct a workshop focusing on optimizing paper recovery and processing strategies. This workshop is one of two market development workshops designed to increase manufacturer demand for mixed paper. It will be held in 1994 or early 1995.

- Promote the long-term competitiveness of mixed paper collection and use.
 1. Conduct a workshop focusing on minimizing paper recycling contaminants in product manufacture. This workshop is one of two market development workshops designed to increase manufacturer demand for mixed paper. It will be held in 1994 or early 1995.

Public/Private Partnership Strategies

Although directories comprise only 0.05 percent of the total California waste stream and 0.2 percent of the waste paper stream, they can temporarily represent up to 2.4 percent of the total waste paper stream during the distribution of new directories. It is by targeting this OTD waste generation peak in community after community, that Pacific Bell, Daishowa, and local programs hope to capture the bulk of the OTD waste stream. This will conserve scarce collection program assets that would otherwise be spent on

recovery of a much smaller fraction of the directory waste stream throughout the rest of the year.

Pacific Bell, as announced at the Board's workshop, will be working to expand partnerships with local programs, developing markets and, perhaps more importantly, supplying collected directories to Daishowa to produce new directory paper. Since Pacific Bell does not have the staff expertise to run hundreds of local recycling programs statewide, it determined that it can more effectively support local programs by providing a pipeline for the directories to a mill. Transportation costs will usually dictate that viable local end-users for OTD receive first bid on the resource.

New Technologies

Two new technologies that may demonstrate some impact on the number of paper directories printed are directories available on CD ROM (Compact Disc, Read Only Memory) for access by appropriately-equipped computers, and those resident in a host mainframe computer and available as an on-line service, being accessed by personal computer or computer workstation. Businesses, libraries, and government agencies that require frequent access to directory information could well justify installation of this capability and essentially forego the need to have paper directories on hand.

All directory listings for the state of California will fit on two CD ROM discs. Yellow pages listings for nearly the entire country will fit on one disc. Directories in either of these formats may be searched rapidly and with a greater number of variables of search criteria than the solely alphabetical, manual search method. Many of the ROM discs that list businesses also allow searches by SIC (the federal Standard Industrial Code) number and often provide additional information such as the number of employees. Rather than totally replace paper directories, application of these new technologies could create *entirely new types of directory markets.*

VII. STATE OF CALIFORNIA RECYCLING GOALS ATTAINMENT

Directories Distributed:	28,000 Tons
Directories Collected:	3,600 Tons
Statewide Recovery:	13 Percent

These figures were obtained from and were calculated using information contained in Yellow Pages Publishers Environmental Network (YPPEN) *Progress Report: For the Year 1993, March 1, 1994* (Appendix B). The report compiles directory distribution figures and OTD collection rates for reporting collection programs for the entire United States. YPPEN is a sub-committee organized under the auspices of YPPA. Figures and calculations in this report do not include:

- Any year-end amounts that had not been reported to YPPEN by the closing date of the report.
- Numbers of directories recovered after collection programs end and recycled with the mixed waste paper stream.
- Directories distributed by non-YPPA members, which comprise approximately 5 percent of total production.
- Directories recovered during recycling programs and recycled with mixed waste paper. These amounts cannot be tracked, although they could be as high as totals recovered during directory-only recycling programs.
- Rectification between amounts reported by YPPA and Pacific Bell. Pacific Bell provided information that it had distributed approximately 43,000 tons of directories in California in 1993 and had been instrumental in recovering approximately 3,000 tons for a recycling rate of 7.0 percent. As noted above, YPPA had reported 28,000 tons distributed (in areas with recovery programs) with a reported 3,600 tons of OTD being recycled from those areas. The total distribution of all publishers in California is estimated by Pacific Bell as 75,000 tons and by YPPA as between 60 and 80 thousand tons. This reaffirms the need to evaluate methods of providing accurate assessments of directory recovery programs.

VIII. SUMMARY

This report has looked at the many facets of the telephone directory recycling industry and has made several determinations and recommendations. And it is hoped that these recommendations will assist in increasing amounts of directories to be recycled. It is also intended that this document will assist local agencies to initiate or improve their directory recycling programs.

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X. APPENDICES

APPENDIX A: Senate Bill 1066 and Assembly Bill 1083.

APPENDIX B: Yellow Pages Publishers Environmental Network (YPPEN) Progress Report: For the Year 1993. (March 1, 1994).

APPENDIX C: List of CIWMB workshop participants.

APPENDIX D: Listings of potential markets for recovered directories in California. This appendix includes the California sections from the YPPA *Recycling Directory*, 1993, a San Francisco waste paper markets list, and the CIWMB Hotline old directory markets referral list.

APPENDIX A

Chapter 9.5. Telephone Directory Recycling
(Chapter 9.5 as added by SB 1322 (Bergeson),
Stats. 1991, c. 1066)

Article 1. Telephone Directory Goals
(Article 1 as added by SB 1066 (Dills), Stats. 1991, c. 1066)

42550. For purposes of this chapter, "telephone directory" means a directory which lists the calling numbers of telephones located in this state of which 1,000 or more copies are distributed to the general public.

As added by SB 1066 (Dills), Stats. 1991, c. 1066.

42551. The board shall conduct a study of the feasibility of requiring that all telephone directories issued or sold in this state be made of materials that will allow for the maximum volume of directories to be recycled. The board shall consult with representatives of telephone directory publishers, including the Yellow Pages Publishers Association, as well as representatives of recycling operators. The board shall make use of public hearings and workshops as a means of providing an opportunity for public comment. The board may create an advisory board consisting of members representing telephone directory publishers, recycling operators, and other interested parties.

As added by SB 1066 (Dills), Stats. 1991, c. 1066.

42552. The board shall report the results of the study to the Legislature on or before July 1, 1994. The report shall include a finding as to whether recyclable materials are currently available which could be utilized in the manufacture of telephone directories which can and will be recycled without significantly reducing the durability of the directories nor significantly increasing production costs. If the board determines that recyclable telephone directories cannot be cost-effectively produced, the board shall include in its report recommendations on alternative methods of removing telephone directories from the waste stream, such as the development of new recycling techniques.

As added by SB 1066 (Dills), Stats. 1991, c. 1066.

42553. Article 2 (commencing with Section 42557) shall become operative only if the report required in Section 42552 contains an affirmative finding regarding the feasibility of producing recyclable telephone directories without significantly reducing the durability of the directories nor significantly increasing production costs.

As added by SB 1066 (Dills), Stats. 1991, c. 1066.

42554. It is the goal of this state that not less than 30 percent of telephone directories distributed in this state be recycled on and after January 1, 1994, that 35 percent of telephone directories distributed in this state be recycled on and after January 1, 1996, that 40 percent of telephone directories distributed in this state be recycled on and after January 1, 1998, and that 50 percent of telephone directories distributed in this state be recycled on and after January 1, 2000.

As added by SB 1066 (Dills), Stats. 1991, c. 1066.

42555. If the board determines that the policy goals established by Section 42554 are not being met by January 1, 1995, the board shall make recommendations to the Legislature, on or before January 1, 1996, on strategies for meeting the goals established in Section 42554.

As added by SB 1066 (Dills), Stats. 1991, c. 1066.

42556. If the board determines that the policy goals established by Section 42554 are not being met by January 1, 1999, the board shall make recommendations to the Legislature, on or before January 1, 2000, on strategies for meeting the goals established in Section 42554.

As added by SB 1066 (Dills), Stats. 1991, c. 1066.

Article 2. Recyclable Telephone Directories
(Article 2 as added by SB 1066 (Dills), Stats. 1991, c. 1066)

42557. On and after January 1, 1995, all telephone directories distributed within the state shall be made from materials that will allow for the maximum volume of directories to be recycled, as determined by the board. If reasonably feasible, it is the goal of this state that existing waste paper recyclers make an effort to accept telephone directories for recycling.

As added by SB 1066 (Dills), Stats. 1991, c. 1066.

42558. For the purposes of implementing and enforcing this chapter, the board shall adopt general guidelines regarding the materials which may be used in the production of telephone directories which can and will be recycled. The guidelines shall be reviewed and promptly updated, as necessary, in order to avoid delay in the introduction of new materials or new recycling processes which will advance efforts to recycle telephone directories.

As added by SB 1066 (Dills), Stats. 1991, c. 1066.

Chapter 15. Newsprint
(Chapter 15 as added by SB 937 (Vuich), Stats. 1990, c. 35)

Article 1. Definitions
(Article 1 as added by SB 937 (Vuich), Stats. 1990, c. 35)

42750. "Consumer of newsprint" means a person who uses newsprint in a commercial printing operation or in a commercial publishing operation.

As added by AB 1305 (Killea), Stats. 1989, c. 1093, formerly in the Gov. C., and added by SB 937 (Vuich), Stats. 1990, c. 35.

42752. "Deink" or "deinking old newspapers" means a process in which old newspaper is mixed with water, the paper fibers are separated to form a paper pulp, and the pulp is cleaned to remove contaminants.

As added by AB 1305 (Killea), Stats. 1989, c. 1093, formerly in the Gov. C., and added by SB 937 (Vuich), Stats. 1990, c. 35.

42753. "Newsprint" means uncoated paper, whether supercalendered or machine finished, of the type generally used for, but is not limited to, the publication of newspapers, commercial advertising inserts, directories, or commercial advertising mailers, which is made primarily from mechanical woodpulp combined with some chemical woodpulp. "Newsprint" includes paper made from old newspapers which have been deinked, using the recycled pulp in lieu of virgin pulp. "Newsprint" includes all grades of paper sold as newsprint, supercalendered (SC) uncoated groundwood, or machine finished (MF) uncoated groundwood.

As added by AB 1305 (Killea), Stats. 1989, c. 1093, formerly in the Gov. C., and added by SB 937 (Vuich), Stats. 1990, c. 35.

42754. "Old newspaper" or "recovered newspaper" means any newsprint which is separated from other types of solid waste or collected separately from other types of solid waste and made available for reuse in making new newsprint, and which meets quality standards for use as a raw material in the manufacture of a new paper product.

As added by AB 1305 (Killea), Stats. 1989, c. 1093, formerly in the Gov. C., and added by SB 937 (Vuich), Stats. 1990, c. 35.

42755. "Post consumer waste paper" means a finished material which would normally be disposed of as a solid waste, having completed its life cycle as a consumer item, including, but not limited to, printing plant waste paper.

As added by AB 1305 (Killea), Stats. 1989, c. 1093, formerly in the Gov. C., and added by SB 937 (Vuich), Stats. 1990, c. 35.

42756. "Recycled-content newsprint" means newsprint in which not less than 40 percent of its fiber consists of post consumer waste paper.

As added by AB 1305 (Killea), Stats. 1989, c. 1093, formerly in the Gov. C., and added by SB 937 (Vuich), Stats. 1990, c. 35.

Article 2. Recycled-Content Newsprint Program
(Article 2 as added by SB 937 (Vuich), Stats. 1990, c. 35.)

42760. On and after January 1, 1991, every consumer of newsprint in California shall ensure that at least 25 percent of all newsprint used by that consumer of newsprint is made from recycled-content newsprint, if recycled-content newsprint is available at a price comparable to that of newsprint made from virgin material, if the recycled-content newsprint meets the quality standards established by the board pursuant to Section 42775, and if the recycled-content newsprint is available within a reasonable period of time.

As added by AB 1305 (Killea), Stats. 1989, c. 1093, formerly in the Gov. C., and added by SB 937 (Vuich), Stats. 1990, c. 35.

42761. The percentage of newsprint used which is made from recycled-content newsprint shall be calculated in tons used on an annual basis and shall increase to:

- (a) Thirty percent on and after January 1, 1994.
- (b) Thirty-five percent on and after January 1, 1996.
- (c) Forty percent on and after January 1, 1998.
- (d) Fifty percent on and after January 1, 2000.

As added by AB 1305 (Killea), Stats. 1989, c. 1093, formerly in the Gov. C., and added by SB 937 (Vuich), Stats. 1990, c. 35.

42762. This division does not apply to any newsprint purchased prior to January 1, 1990.

As added by AB 1305 (Killea), Stats. 1989, c. 1093, formerly in the Gov. C., and added by SB 937 (Vuich), Stats. 1990, c. 35.

Article 3. Certification of Use
(Article 3 as added by SB 937 (Vuich), Stats. 1990, c. 35)

42770. Each consumer of newsprint within the State of California shall, on or before March 1 of each year, certify to the board the number of tons of newsprint used during the preceding calendar year and the number of tons of recycled-content newsprint used during the preceding calendar year.

As added by AB 1305 (Killea), Stats. 1989, c. 1093, formerly in the Gov. C., and added by SB 937 (Vuich), Stats. 1990, c. 35.

42771. Every consumer of newsprint who submits recycled-content newsprint usage certification pursuant to Section 42770 may be subject to an audit to ensure that the recycled-content newsprint was used.

As added by AB 1305 (Killea), Stats. 1989, c. 1093, formerly in the Gov. C., and added by SB 937 (Vuich), Stats. 1990, c. 35.

42772. Each person who supplies a consumer of newsprint with newsprint shall certify the amounts of recycled-content newsprint contained in each shipment to each consumer of newsprint. If a shipment contains no recycled-content newsprint, the supplier

shall so certify.

As added by AB 1305 (Killea), Stats. 1989, c. 1093, formerly in the Gov. C., and added by SB 937 (Vuich), Stats. 1990, c. 35.

42773. If a consumer of newsprint is unable to obtain sufficient amounts of recycled-content newsprint within any reporting period because recycled-content newsprint was not available at a comparable price to that for virgin material, failed to meet the quality standards established pursuant to Section 42775, or was not available within a reasonable period of time, the consumer of newsprint shall so certify to the board and shall provide the board with the specific reason for failing to use recycled-content newsprint. In order to make that certification in good faith, the newsprint consumer shall have contacted, for the purpose of obtaining recycled-content newsprint, every producer of recycled-content newsprint that offered to sell recycled-content newsprint to the consumer of newsprint within the last 12 months. The name of each person contacted, the corporate name, if any, and address and telephone number shall accompany each filing with the board.

As added by AB 1305 (Killea), Stats. 1989, c. 1093, formerly in the Gov. C., and added by SB 937 (Vuich), Stats. 1990, c. 35.

42774. For the purposes of implementing and enforcing this chapter, the board shall develop and maintain a list which identifies every consumer of newsprint, as defined in Section 42751, and every person who supplies a consumer of newsprint with newsprint, in the state. The board may use information from local business permits, trade publications, or any other relevant information to develop the list.

As added by AB 1305 (Killea), Stats. 1989, c. 1093, formerly in the Gov. C., and added by SB 937 (Vuich), Stats. 1990, c. 35.

42775. (a) For the purposes of implementing and enforcing this chapter, the board shall set newsprint comparable quality standards for each of the grades of newsprint specified in Section 42753 to determine the comparable quality of recycled-content newsprint to virgin material. These standards shall be based on the average numerical standards of printing opacity, brightness level, and cross machine tear strength available from all producers selling recycled-content newsprint in the state in quantities of at least 5,000 metric tons per year. The board shall set standards which deviate from this average by not more than 5 percent.

(b) The board shall review its standards at least once every two years and determine whether they should be adjusted to reflect changes in industry standards and practices, and, if so, the board shall set new standards according to the criteria in subdivision (a).

As added by AB 1305 (Killea), Stats. 1989, c. 1093, formerly in the Gov. C., and added by SB 937 (Vuich), Stats. 1990, c. 35.

42776. After January 1, 1994, the board shall conduct a survey of the paper industry to assess the availability of, quality of, and market for all recycled-content papers, including coated groundwood papers and other papers which are not newsprint. The board shall report the findings of its survey to the Legislature on or before July 1, 1994.

As added by AB 1305 (Killea), Stats. 1989, c. 1093, formerly in the Gov. C., and added by SB 937 (Vuich), Stats. 1990, c. 35.

Article 4. False Certification
(Article 4 as added by SB 937 (Vuich), Stats. 1990, c. 35)

42780. If any person provides a consumer of newsprint with a false or misleading certificate concerning the recycled content of the delivered newsprint pursuant to Section 42772, the board, within 30 days of making this determination, shall refer the false or misleading certificate to the Attorney General for prosecution for fraud.

As added by AB 1305 (Killea), Stats. 1989, c. 1093, formerly in the Gov. C., and added by SB 937 (Vuich), Stats. 1990, c. 35.

42781. If any consumer of newsprint provides the board with a false or misleading certificate concerning the percentage of recycled-content newsprint used pursuant to Section 42770, the board within 30 days of making this determination, shall refer the false or misleading certificate to the Attorney General for prosecution for fraud.

As added by AB 1305 (Killea), Stats. 1989, c. 1093, formerly in the Gov. C., and added by SB 937 (Vuich), Stats. 1990, c. 35.

42782. If any consumer of newsprint provides the board with a false or misleading certificate concerning why the consumer of newsprint was unable to obtain the minimum amounts of recycled-content newsprint pursuant to Section 42773, the board, within 30 days of making this determination, shall refer the false or misleading certificate to the Attorney General for prosecution for fraud.

As added by AB 1305 (Killea), Stats. 1989, c. 1093, formerly in the Gov. C., and added by SB 937 (Vuich), Stats. 1990, c. 35.

42783. Specific information on newsprint prices included as part of a certificate submitted to the board by newsprint consumers or suppliers of newsprint is propriety information and shall not be made available to the general public.

As added by AB 1305 (Killea), Stats. 1989, c. 1093, formerly in the Gov. C., and added by SB 937 (Vuich), Stats. 1990, c. 35.

Article 5. Penalties
(Article 5 as added by SB 937 (Vuich), Stats. 1990, c. 35)

42790. Any person who violates Chapter 3 (commencing with Section 42770) is guilty of an infraction punishable by a fine of not more than one thousand dollars (\$1,000).

As added by AB 1305 (Killea), Stats. 1989, c. 1093, formerly in the Gov. C., and added by SB 937 (Vuich), Stats. 1990, c. 35.

42791. In addition to Section 42790, any person who violates this division may be assessed a civil penalty by the board of not more than one thousand dollars (\$1,000) for each violation, pursuant to notice and hearing. Any civil penalties received pursuant to this subdivision shall be deposited in a separate account in the Solid Waste Management Fund and, upon appropriation, shall be used by the board for the administration of this division.

As added by AB 1305 (Killea), Stats. 1989, c. 1093, formerly in the Gov. C., and added by SB 937 (Vuich), Stats. 1990, c. 35, and amended by AB 2211 (Sher), Stats. 1992, c. 280.

APPENDIX B

**YELLOW
PAGES
PUBLISHERS
ENVIRONMENTAL
NETWORK**



**PROGRESS REPORT:
FOR THE YEAR 1993**

MARCH 1, 1994

**Yellow Pages Publishers Association
820 Kirks Blvd. Suite 100
Troy, Michigan 48084
(810) 244-0710**

**Text printed on 20# Hammermill Unity DP, a 100% recycled sheet made from
old de-inked newspapers and magazines**

Printing courtesy of NYNEX Information Resources Co.

YELLOW PAGES PUBLISHERS ASSOCIATION

PROGRESS REPORT FOR THE YEAR 1993

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I. INTRODUCTION

The Yellow Pages Publishers Association (YPPA) was established in 1988 as a not-for-profit organization dedicated to meeting the needs of the Yellow Pages industry and all those related to it.

YPPA currently represents 163 publishers who collectively produce more than 95% of all Yellow Pages directories in North America. The Association also represents 149 certified marketing representatives who sell national Yellow Pages advertising, as well as 70 associate members (among them are directory printers and directory paper mills).

YPPA proactively develops programs & services designed to advance the common interests of those associated with the Yellow Pages medium. YPPA also acquires information for dissemination to members of the Yellow Pages publishing industry to aid in the conduct of their business and in communicating their needs and interests to federal, state and local legislative and administrative bodies.

BACKGROUND & PURPOSE

In 1991, YPPA created the Yellow Pages Publishers Environmental Network (YPPEN) as the Association committee charged with identifying proactive efforts that can be undertaken by YPPA and the industry. This committee developed a strategic plan for environmental leadership which led YPPA to bring together, through YPPEN, representatives of publishers, printers and paper mills to develop and work toward implementation of national standards for the directory industry.

Later that same year, as a result of this effort, the Northeast Recycling Council (NERC) met with YPPA and subsequently approved the YPPA Environmental Committee Action Plan. The Action Plan is a three-phase plan.

Part of the three-phase plan is an annual progress report to be distributed to the public by March 1 of each year summarizing the previous year's progress, beginning with data from 1992. This report provides aggregate data for the industry, summary of progress, statistics, barriers and quality issues as well as appropriate revisions to YPPA's goals.

NOTE: *YPPA secures information for this report from publishers and paper mills for the sole purpose of issuing an industry-wide, national report to the public. While publishers and mills provide detailed information to YPPA that is otherwise considered proprietary, it is with the understanding that the information will be aggregated into an overall industry report, thereby masking company-specific proprietary material.*

II. SOURCE REDUCTION INITIATIVES

In 1993 YPPA publisher members continued to incorporate source reduction activity into their operations. Actions initially reported in the 1992 report, such as reducing the basis weight of directory paper (e.g. changing from a 22.5 lb sheet to a 20 lb sheet, again, the simplest explanation would be to consider that this sheet weighs less & is thinner, requiring less fiber to produce), reducing the size of the directory (a 9 x 11 directory reduced to an 8 7/8 x 10 7/8 as an example), adjusting print orders to reduce salvage at the end of the directory cycle and special features that reduce the amount of pages required have become more widespread among publishers. The net result is a savings of paper, and a reduction in the amount of material that would need to be recycled.

Ink manufacturers have developed inks that reduce the use of heavy metal pigments in colors such as red and blue. Some printers and publishers have conducted trials with these inks, and they do hold promise for widespread use. Additional testing is being conducted. The potential to decrease the use of a hazardous material is the driving force in this testing.

Some publishers use water base inks, reducing the amount of Volatile Organic Compounds (VOC's) generated during the printing process and thus eliminating the need for hydrocarbon based solvents and their resultant hazardous waste.

III. RECYCLED CONTENT

The report for the year 1993 indicates a 136% increase in participation from publishers over 1992 (although the recycled content goals did not officially begin until 1993) with a response rate of 26 publisher members in 1993 as opposed to 11 in 1992. This increase in participation is indicative of the commitment of YPPA publisher members to the recycling goals as outlined in the **YPPA Environmental Committee Action Plan**.

It should also be noted that the 10 largest publisher members reporting account for 95% of the overall YPPA member paper usage reported. Additionally, directory paper is used in such non-directory products as parts catalogs, the Official Airline Guide, Real Estate Multiple Listing Guides, as well as shipments overseas by mills.

YPPA PROGRESS REPORT: *FOR THE YEAR* 1993

-Summary of information:

➤The seven major directory paper mills in 1993 produced 865,624 tons of directory paper, and of that amount 83%, or 720,443 tons contained recycled fiber.

➤ Publishers reporting to YPPA, purchased 564,963.64 tons, or 66% of the total production. Non-reporting YPPA member publishers, non-YPPA publishers, non-directory products as well as overseas shipments by mills would account for the difference.

➤YPPA member publishers (responding for this report) purchased 98.99% of their paper with recycled content.

➤Recycled content in 1993 ranged from 10 - 40%, with the bulk (1/3) in the 20% area. YPPA recycled content goals took effect in 1993, set at the 10% level.

In 1993, information from the 26 publishers responding to YPPA indicated that publisher members used 564,963.64 tons of recycled paper out of the overall 720,443 tons of recycled paper produced (accounting for 78%). Again, non-reporting YPPA member publishers, non-YPPA publishers, non-directory products as well as overseas shipments would account for the difference.

NOTE:

The reader will also find that one publisher (identified as Publisher E in the PUBLISHER PAPER PURCHASES matrix) used a 100% recycled sheet, yet no directory paper mill is on record as having produced the paper! That is because the publisher used newsprint. The paper used to print newspapers (newsprint) is a heavier weight, different grade of paper, with different physical and optical properties, and is used by some directory publishers.

MILL	TONS PRODUCED	TONS W/RECYCLED	TONS 10 %	TONS 15%	TONS 20%	TONS 30%	TONS 40%
A	202,000	145,000		70,000	75,000		
B	201,000	201,000				42,000	159,000
C	106,975	104,152	58,311	16,467	19,298		10,076
D	105,628	76,170	50,500	25,670			
E	105,951	105,951	105,951				
F	86,000	30,100					
G	58,070	58,070	31,245		26,285		
TOTAL	865,624	720,443	246,007	112,137	120,583	42,000	169,076
% of TONNAGE w/RECYCLED CONTENT:							
			OVERALL =	83.23%			
			10% =	28.42%			
			15% =	12.95%			
			20% =	13.93%			
			30% =	4.85%			
			40% =	19.53%			

PUBLISHER	TONS- PURCHASED	TONS W/RECYCLED	TONS 10%	TONS 15%	TONS 20%	TONS 25%	TONS 30%	TONS 40%	TONS 100%
A	61,421.00	61,421.00		61,421.00					
B	122.25	122.25	122.25						
C	7,803.15	7,803.15		7,803.15					
D	1,858.20	1,286.60	1,097.20	189.40					
E	21.00	21.00							21.00
F	334.50	334.50	334.50						
G	54,000.00	54,000.00			54,000.00				
H	417.24	110.44						110.44	
I	45,325.00	45,140.00	43,418.00		1,602.00	120.00			
J	276.00	276.00		276.00					
K	69,116.00	69,116.00	69,116.00						
L	70,000.00	70,000.00	1,000.00	27,000.00			42,000.00		
M	1,088.00	584.00						584.00	
N	6,180.00	6,180.00	6,180.00						
O	418.22	135.00						135.00	
P	152.40	152.40	104.52	47.87					
Q	1,561.00	1,561.00						1,561.00	
R	67,600.00	64,180.00	24,700.00		1,100.00		3,150.00	35,230.00	
S	293.00	29.30	29.30						
T	617.00	617.00				617.00			
U	2,200.00	1,976.00	1,976.00						
V	75,000.00	75,000.00			75,000.00				
W	47,000.00	47,000.00			47,000.00				
X	3,018.00	3,018.00		3,018.00					
Y	18,900.00	18,900.00			18,900.00				
Z	36,000.00	36,000.00		25,000.00				11,000.00	
TOTAL	570,721.96	564,963.64	148,077.77	124,755.42	197,602.00	737.00	45,150.00	48,620.44	21.00
% OF TONNAGE W/RECYCLED CONTENT:									
			OVERALL =	98.99%	NOTE:				
			10% =	25.95%	PUBLISHER I OBTAINED 25% RECYCLED CONTENT AS A TRIAL				
			15% =	21.86%	PUBLISHER T DATA IS AN AGGREGATE OF RECYCLED CONTENT				
			20% =	34.62%	PUBLISHER E USED NEWSPRINT PAPER				
			30% =	7.91%					
			40% =	8.52%					

V. RECYCLABLE TELEPHONE DIRECTORIES

° Establishing a generically recyclable directory

YPPEN brought the issue of a separate waste grade for OTD before the Institute of Scrap Recycling Industries (ISRI) through the Paper Stock Institute (PSI), and was recently able to have OTD listed as a regular grade. This means that markets for OTD can specify this grade from paper brokers and Materials Recovery Facilities (MRFs).

OTD, which formerly was listed as Specialty Grade No. 275, became Regular Grade No. 23. This grade is defined as follows:

"Consists of clean, dry telephone directories printed for or by telephone directory publishers. No prohibitive materials are permitted; total outthrows may not exceed one half of 1%."

° **SUMMARY OF BARRIERS:**

A summary of committed members' barriers (and quality issues) which could block members from meeting the Action Plan's goals for the upcoming year and recommendations as to what members can do about removing them. The following comments (designated with a and in bold type) were received from publisher members responding in this area (recommendations/feedback/response is designated with a "✓-").

Recycling hampered by lack of local programs.

✓-Market development efforts to date have begun to open up new areas for OTD as potential end users learn about the value of OTD as a fiber source. However, each local area is unique in the opportunities (or lack thereof) and market development is the critical point to developing a successful recycling program. YPPA is committed to opening up markets through the work of the YPPEN Environmental OTD Market Committee.

Looking for adhesives other than Hot-Melt that can stand severe weather extremes and still is recyclable in local market

✓-Trials are currently underway (see Case Study, pg. 12) to develop new adhesives that meet performance specifications as well as recycling/environmental specifications.

° SUMMARY OF BARRIERS (continued):

Trial with a 100% recycled sheet was unsuccessful

✓-This trial is certainly welcomed, however at this stage it may not be realistic to expect a 100% recycled sheet to be able to run on all types of printing equipment. With the goal of 40% set for 1998, durability, runability and opacity issues demand long, strong fibers (e.g. kraft), as well as clay fillers. This means that a recycled content of approximately 40% may be the practical maximum range for directory paper. (Some paper reportedly has been tested with 50% content, however no conclusive results available at this time).

Ability of mills to provide recycled content to smaller publishers

✓-This remains a concern, however as demand from larger publishers for recycled content are met, the opportunity for smaller publishers to secure recycled content paper in accordance with the YPPA goals should increase, especially in spot market purchases.

Quality and cost of high % post-consumer content recycled paper.

Appearance of stock is considered an indicator of quality by customers, and the higher % content recycled paper does not have the appearance of a quality sheet to customers.

✓-This issue is not as easily addressed and varies from mill to mill. There are mills with the proper equipment which can produce a 40% recycled content paper that has an appearance and runability equal to that of a virgin sheet at competitive prices.

Quality issue - shipment of less-than-spec recycled content paper was rejected, unable to print on press. Runability is still an issue on some equipment. This meant that publisher was not able to utilize recycled paper in 100% of directories.

✓-The quality of recycled paper is continuously improving, however, as is the case with all paper, there are occasional quality issues. Paper mills are committed to providing high quality recycled papers with higher and higher recycled content.

°SUMMARY OF BARRIERS (continued):

- Smaller publishers often rely on printer to secure paper for directories, and printers utilize best available stock at order point. Recycled content stock may be priced higher than virgin. (*Virgin is being discounted in today's markets*).

✓-This again is a market driven issue. Paper mills have responded to the demand for recycled content paper in 1993, and will, within their abilities, market as much product as the demand will bear. In responding to the needs of larger publishers, the mills have increased their capacity to produce recycled content paper, which increased the overall supply and thus recycled stock is becoming more readily available to printers who supply paper to publishers.

°SUMMARY OF PROGRESS:

A summary of committed members' progress, through the "Environmentally Compatible Directory Guidelines", toward establishing a generically recyclable directory. The following comments were received from publisher members responding in this area:

- As the larger publishers request recycled content paper and mills respond, more is becoming available to smaller publishers.
- Have successfully run text stock with 40% post-consumer content.
- 95% of all paper used had recycled content of at least 10%.
(Aggregate content met YPPA requirement for 1993)
- Positive feedback from consumers regarding recycling efforts.
- 1993 content of 25% met the YPPA 1995 objective.
- 1993 content of 40% met the YPPA 1998 objective.

°SUMMARY OF PROGRESS (continued):

The following Case Study will serve to illustrate the progress that is being made through the work of the YPPEN committees as issues confronting successful recycling are addressed.

| CASE STUDY |

A publisher with a local market for OTD bound without hot-melt, worked with their printer who had binding equipment that was set up for hot-melt binding. Printer tested various non-hot-melt adhesives that did not involve a major investment in new equipment or a costly adjustment to printer's bindery, and was able to successfully use a water-soluble adhesive to bind the two directories in that local area. Adhesive manufacturer was aware of this issue, and welcomed the opportunity to develop an alternative. No adverse effects on the directory.

VI. REVISIONS TO ACTION PLAN

The Action Plan is a living document, and thus subject to modification as time and technology advance. An outline of how changes to the plan are made is found on page 13.

In 1993, there were no changes made to the YPPA Environmental Committee Action Plan.

SIX STEP PROCESS FOR ACTION PLAN REVISION

- | | |
|---------------|---|
| STEP 1 | Regular committee meeting to discuss changes in markets, materials, technology, processes, etc. |
| STEP 2 | DRAFT version of recommendation for changes are made. |
| STEP 3 | To Steering Committee for consideration and recommendations. |
| STEP 4 | Communicate with stakeholders (i.e. governments, suppliers, others) for comment. |
| STEP 5 | To YPPA Board of Directors for implementation authority. |
| STEP 6 | YPPA disseminates the changes to members and other interested parties. |

APPENDIX D

YPPA RECYCLING DIRECTORY

**End User Data Base:
Those companies that accept
outdated directories for recycling**

1993 Third Edition

Yellow Pages Publishers Association
340 E. Big Beaver Road • 5th Floor • Troy, Michigan 48083
(313) 680-8880 — Fax (313) 680-1251

Revised September 1993

RECYCLING DIRECTORY... WHAT IS IT?

Throughout the nation, communities, industries, and governments are developing new strategies to deal with our common solid waste crisis. In most areas, there is a shift away from our dependence on landfills to a more comprehensive program which includes recycling.

Why: Although outdated directories make up less than 1/2 of 1% of the waste paper stream, YPPA is committed to solving any environmental problems created by directories. Successful recycling of directories depends not only on collection efforts but also on locating markets for directories. In recognition of the lack of reliable and adequate information on these markets, in 1991 YPPA commissioned the CEIP Fund, Inc., a nonprofit environment organization, to identify markets for outdated directories.

What: Using this information, YPPA has developed this directory as a guide for telephone directory publishers, solid waste officials, municipal recycling centers, and environmental organizations to help them locate markets for outdated directories.

This directory is organized into two main sections, **USERS** and **DEALERS**. **USERS** are those U.S. and Canadian companies that use directories as waste paper in creating their products. **DEALERS** are those U.S. and Canadian waste paper dealers that either buy and sell, pack, and/or haul telephone directories.

DEALERS:

WHO: To determine which companies to include in the directory, over 1,400 companies were surveyed by mail and/or by phone. The dealers surveyed were chosen because their company was known to be a waste paper dealer.

HOW: Initial identification of companies to be surveyed was obtained through various paper industry directories and reports, solid waste governmental agencies, directory publishers, trade associations, recycling magazines, nonprofit environmental organizations, and companies that were surveyed which suggested other companies to be surveyed.

USERS:

WHO: To determine which companies to include in the directory, over 1,400 companies were surveyed by mail and/or by phone. The users surveyed were chosen because their company was thought to be a current user of directories or grades of waste paper similar to directories, or because their company's products could potentially use directories as part of the waste paper stock.

HOW: Initial identification of companies to be surveyed was obtained through various paper industry directories and reports, solid waste governmental agencies, directory publishers, trade associations, recycling magazines, nonprofit environmental organizations, and companies that were surveyed which suggested other companies to be surveyed.

Undoubtedly, there were companies that weren't surveyed which fit the above criteria. We have worked to identify those companies and surveyed them for this 3rd directory.

To get your free copy of the 1993 Edition of *Recycling Directory*, fax your request to (313) 680-0798 or, you can send your request to Yellow Pages Publishers Association, 340 E. Big Beaver Road, 5th Floor, Troy, Michigan 48083.

If you represent a Municipality, please contact your local yellow pages publisher.

N = First time in publication

R = Change since previous issue



The CEIP Fund, Inc. is a private, national, nonprofit organization dedicated to improving the supply and quality of America's environmental professionals. Since 1972, CEIP has placed more than 4,000 college students and recent graduates in paid, short term positions at over 8,000 agencies and companies. CEIP also offers career information through the Environmental Career Services and cultural diversity assistance through the Minority Opportunities Program.

If you would like intern assistance for your recycling program, contact Kevin Doyle, National Director of Programs, The CEIP Fund, 68 Harrison Avenue, 5th Floor, Boston, Massachusetts 0211-1907.

1993 editing/updating with special assistance from YPPEN Collection/Market Development Sub-Committee.

Printed on 20# Hammermill Unity DP, a 100% recycled sheet made exclusively from old de-inked newspapers and magazines

As you contact the companies listed in this directory, here are a few items to keep in mind:

- Due to the rapidly changing demand for waste paper, all information in this directory is subject to change.
- You may contact a user in your area directly, or work with a waste paper dealer to deliver your telephone directories to a user.
- If a company is listed in this directory, it doesn't automatically mean that the company can work with your organization. Sometimes an arrangement must be worked out between the two parties.
- Some companies listed in the directory may only use or deal in a specific type of directory. Telephone directories that are used for waste paper are divided into two basic types, post consumer directories and print overruns. Post consumer directories are those which are used by consumers (such as residences, businesses, and organizations) and are discarded each year when new directories arrive. Print overruns are excess directories that are never distributed and therefore never used by consumers.
- Each company listed has its own delivery and packaging requirements which can be obtained by contacting them directly. Some companies may allow the directories to come mixed in with other waste paper; others may request that the directories be separated out. Also, companies may ask for the directories to be baled, loaded on pallets, or even left loose. For example, Georgia Pacific, A U.S. User of directories, has 2 locations in Oklahoma that will accept post consumer directories only if the binding is removed and the directories are baled.

This directory will be updated yearly (or on a regular basis, as appropriate.) If you know of additional companies that we should contact about being included in next year's update or if you have any suggestions or comments about the content, format, or other aspects of this directory, please contact: John Purcell - (313) 680-9238, or mail suggestions to YPPA Headquarters, 340 E. Big Beaver Road, 5th Floor, Troy, Michigan 48083.

U.S. Telephone Directory Dealers

For your convenience in locating a company, in your area, they have been arranged alphabetically by state and alphabetically by the city name within the state.

<u>Company Name</u>	<u>Look Under</u>
AMS International Inc.....	Portland, Oregon
Allan Co.	Fresno, California
Allan Paper Stock Co. 1988 Ltd.	Victoria, British Columbia, Canada
American Independent Paper Mills Supply	Tarrytown, New York
American Waste Paper Inc.....	Cranston, Rhode Island
Angelus Western Paper Fibers, Inc.	Los Angeles, California
Arco Trading Corp.....	Pittsburgh, Pennsylvania
Arizona Fibers Co.....	Tucson, Arizona
Atlantic Coast Fibers.....	Passaic, New Jersey
Automated Material Handling	Kensington, Connecticut
Automated Recycling Industries Inc.	Erie, Pennsylvania
Avon Fibre Corp.....	Avon, Massachusetts
BFI Waste Systems	Edmonton, Alberta, Canada
Belmont Fibers.....	Montebello, California
Berg Mill Supply Co. Inc.....	Beverly Hills, California
Bestway Recycling Co.	Los Angeles, California
Browning Ferris Industries of Florida	Jacksonville, Florida
Browning Ferris Industries	Pensacola, Florida
Bryant Salvage Co. Inc.....	Madisonville, Virginia
Canada Fibres Ltd.....	Etobicoke, Ontario, Canada
Canadian Fibres	Richmond, British Columbia, Canada
Canterbury Industries of America, Inc.....	Glen Cove, New York
Canusa	Baltimore, Maryland
	Hamburg, New York
	Rockingham, North Carolina
Chesterfield Paper Co. Inc.....	Paramus, New Jersey
Clayton-Ward Co.	Kennewick, Washington
Colgate Paper Stock	Somerset, New Jersey
Columbia Paper Corporation.....	Narbeth, Pennsylvania
Cosmopolitan Industries Ltd.....	Saskatoon, Saskatchewan, Canada
Cumberland Recycling Corp.....	Vineland, New Jersey
Cycle Systems Inc.....	Roanoke, Virginia
DK International	Wynnewood, Pennsylvania
Dixie Waste Paper Co.....	Greenville, South Carolina
Edmonton Recycling Society.....	Edmonton, Alberta, Canada
Elliott Krever & Associates Limited	Markham, Ontario, Canada
Fibres International Inc.....	Bellevue, Washington
First Environmental Commitment Oper.	Vancouver, British Columbia, Canada
Genor Services Limited	Brantford, Ontario, Canada
Giordano's Recycling	Vineland, New Jersey
Great Western Fibre Inc.....	San Diego, California
Greensburg Waste Paper Co.	Greensburg, Pennsylvania
Halton's Recycled Resources Ltd.	Burlington, Ontario, Canada
Hardwick Recycling	Morrisville, Vermont
Hellman Trading Inc.	Branford, Connecticut
Hershman Recycling Inc.....	West Haven, Connecticut
Huntsville Recycled Fiber/Rock-Tenn	Huntsville, Alabama
I. Erlichman Co. Inc.....	Peoria, Illinois
IPF Recycling Corp.....	Manhasset, New York
Inland Paper Stock Inc.....	San Bernardino, California
International Paper Industries Ltd.....	N. Vancouver, British Columbia, Canada
International Paper Industries	Surrey, British Columbia, Canada
International Recycling of America.....	Glen Cove, New York

U.S. Telephone Directory Dealers

<u>Company Name</u>	<u>Look Under</u>
J.C. Fibers Incorporated.....	Chambly, Province of Quebec, Canada
J.C. Paper Co. Inc.....	Poughkeepsie, New York
J. Schwartz Motor Trans.....	Manchester, New Hampshire
James Flett Organization Inc.....	Atlanta, Georgia
	Wheeling, Illinois
Junction McGregor Waste Paper & Metal.....	Detroit, Michigan
John Rocco Scrap Material Inc.....	Elizabeth, New Jersey
Kansas Recycling & Trucking.....	See each state for listing
Korman Trading Inc.....	San Pedro, California
Luxus Corp.....	Durand, Illinois
M.S. Reilly Inc.....	Easton, Pennsylvania
M. Politinsky & Sons Inc.....	Clifton, New Jersey
Marcus Paper Co.....	West Haven, Connecticut
Medina Paper Recycling Inc.....	Medina, Ohio
Midwest Fibre Sales Corporation.....	Springfield, Montana
Mount Scrap Material.....	Montgomery, Alabama
North Shore Recycled Fibers Corp.....	Salem, Massachusetts
Orford Recycling.....	Magog, Province of Quebec, Canada
Orford Corp.....	Winooski, Vermont
Pacific Coast Fibres.....	Kirkland, Washington
Pacific Forest Resources.....	See each state/providence for listing
Pacific Forest East Inc.....	Stamford, Connecticut
Packaging Corp. of America.....	Cleveland, Ohio
Paper Chase Recycling.....	Edmonton, Alberta, Canada
Paper Processing Inc.....	Green Bay, Wisconsin
	Madison, Wisconsin
Paper Recycling International.....	See each state for listing
Pioneer Fibers.....	Indianapolis, Indiana
Pioneer Industries.....	Minneapolis, Minnesota
Potter County Solid Waste Authority.....	Wellsville, New York
Quebec & Ontario Recycling Ltd.....	Toronto, Ontario, Canada
Rapid Recycling.....	Norristown, Pennsylvania
Recycle America of Dade County.....	Miami, Florida
Rock-Tenn Co.....	Cleveland, Tennessee
	Fort Worth, Texas
S. Yaffa & Sons.....	Camden, New Jersey
SWC Recycling.....	Fredericton, New Brunswick, Canada
Schirmer Paper Corp.....	Boston, Massachusetts
Scotia Recycling.....	Dartmouth, Nova Scotia, Canada
Sisco Traders Inc.....	New York, New York
Smurfit Recycling Company.....	Torrance, California
	Oregon City, Oregon
	Portland, Oregon
	Seattle, Washington
Smurfit Recycling Corp.....	Los Angeles, California
	San Diego, California
Spector Waste Paper Corp.....	Rochester, New York
Sterling Packaging, Inc.....	Billerica, Massachusetts
Sunbright Waste Paper Co. Inc.....	Waco, Texas
Sunset Fibre Industries Inc.....	Irvine, California
T.L.E.....	Encino, California
The Newark Group.....	Cranford, New Jersey
The Owl Corp.....	Dundalk, Maryland
Third Century Recycling Inc.....	Waterbury, Connecticut
Tidewater Fibre.....	Chesapeake, Virginia
Traders International Corp.....	North Palm Beach, Florida
Trails End Waste Paper.....	Wood River Junction, Rhode Island

U.S. Telephone Directory Dealers

<u>Company Name</u>	<u>Look Under</u>
V. Monteleone & Co.....	Bronx, New York
Vista Fibers	Dallas, Texas
Walden & Sons.....	Richmond, British Columbia, Canada
West Coast Salvage & Recycling Co.....	San Francisco, California
Western Pacific Pulp & Paper Inc.....	Vancouver, Washington
Weyerhaeuser.....	Beaverton, Oregon
Weyerhaeuser Paper Company	Eugene, Oregon
William Goodman & Sons.....	Portland, Maine
Willimantic Waste Paper Co. Inc.	Willimantic, Connecticut
World Fibers Inc.	Houston, Texas

ALABAMA

N **KANSAS Recycling & Trucking**
Mr. Jim Spero
53 Frost Street
Brooklyn NY 11211
Tel (718) 387-9701

N **Pacific Forest Resources**
Don Cotter or Ashu Vayas
200 Tamal Plaza Suite 200
Corte Madera CA 94925
Tel (415) 927-1700

**Huntsville Recycled
Fiber/Rock-Tenn**
Ms. Debbie Sisk
Secretary
205 Wholesale Avenue
Huntsville AL 35811
Tel (205) 533-9888

Mount Scrap Material
Mr. Haywood Dozier
Buyer
824 N. Decatur Street
Montgomery AL 36103
Tel (205) 262-8328

ALASKA

N **KANSAS Recycling & Trucking**
Mr. Jim Spero
53 Frost Street
Brooklyn NY 11211
Tel (718) 387-9701

N **Pacific Forest Resources**
Don Cotter or Ashu Vayas
200 Tamal Plaza Suite 200
Corte Madera CA 94925
Tel (415) 927-1700

ARIZONA

N **KANSAS Recycling & Trucking**
Mr. Jim Spero
53 Frost Street
Brooklyn NY 11211
Tel (718) 387-9701

ARIZONA (continued)

N **Pacific Forest Resources**
Don Cotter or Ashu Vayas
200 Tamal Plaza Suite 200
Corte Madera CA 94925
Tel (415) 927-1700

Arizona Fibers Co.
Mr. Edmundo Santacruz
Manager
2450 S. 12th Avenue
Tucson AZ 85713
Tel (602) 622-0074
Fax (602) 622-0074

ARKANSAS

N **KANSAS Recycling & Trucking**
Mr. Jim Spero
53 Frost Street
Brooklyn NY 11211
Tel (718) 387-9701

N **Pacific Forest Resources**
Don Cotter or Ashu Vayas
200 Tamal Plaza Suite 200
Corte Madera CA 94925
Tel (415) 927-1700

CALIFORNIA

Berg Mill Supply Co. Inc.
Mr. Roger Berg
President
P.O. BOX 5568
Beverly Hills CA 90210
Tel (213) 656-8804
Fax (213) 650-7212

N **KANSAS Recycling & Trucking**
Mr. Jim Spero
53 Frost Street
Brooklyn NY 11211
Tel (718) 387-9701

CALIFORNIA (continued)

N Pacific Forest Resources

Don Cotter or Ashu Vayas
200 Tamal Plaza Suite 200
Corte Madiera CA 94925
Tel (415) 927-1700

T.L.E.

Mr. V.O. Owens
President
4514 Charmion Lane
Encino CA 91316
Tel (818) 990-4190
Fax (818) 990-8943

Allan Co.

Mr. Harold Nelson
Plant Manager
2607 E. Woodward Street
Fresno CA 93721
Tel (209) 264-4804
Fax (209) 264-3509

Sunset Fibre Industries Inc.

Mr. Chris Kazarian
Coordinator
16182 Construction Circle W.
Irvine CA 92713
Tel (714) 551-5714
Fax (714) 551-8566

Angelus Western Paper Fibers, Inc.

Mr. Greg Rouchon
President
2474 Porter Street
Los Angeles CA 90021
Tel (213) 623-8171
Fax (213) 623-3435

Bestway Recycling Co.

Mr. Dong Su Kim
General Manager
2268 E. Firestone Blvd.
Los Angeles CA 90002
Tel (213) 588-8157
Fax (213) 588-8436

CALIFORNIA (continued)

Smurfit Recycling Corp.

Mr. Ronald Brookes
General Manager
3033 E. Washington Blvd.
Los Angeles CA 90023
Tel (213) 263-2103
Fax (213) 265-0720

Belmont Fibers

Mr. Bamboo Tseng
Assistant Manager
1736 Chapin Road
Montebello CA 90640
Tel (213) 727-9232
Fax (213) 727-0142

Inland Paper Stock Inc.

Ms. Annette Rhineschild
Purchasing Agent
777 W. Riano Avenue
San Bernardino CA 92410
Tel (714) 884-8672
Fax (714) 884-0515

Great Western Fibre Inc.

Mr. John Burke
Foreman
7844 Armour Street
San Diego CA 92111
Tel (619) 268-3533

Smurfit Recycling Co.

Mr. Jesus Carrillo
General Manager
3055 Commercial Street
San Diego CA 92113
Tel (619) 239-2046
Fax (619) 235-0949

West Coast Salvage & Recycling Co.

Mr. Tom Padia
General Manager
1900 17th Street
San Francisco CA 94103
Tel (415) 621-3840
Fax (415) 621-5036

CALIFORNIA (continued)

Korman Trading Int.
 Mr. Carlo Baroncini
 1900 N. Gaffey Street
 San Pedro CA 90731
 Tel (213) 519-0042
 Fax (213) 519-0752

Smurfit Recycling Company
 Mr. Vincent Christakes
 General Manager
 20502 S. Denker Avenue
 Torrance CA 90501
 Tel (213) 533-0333
 Fax (213) 328-8694

COLORADO

N **KANSAS Recycling & Trucking**
 Mr. Jim Spero
 53 Frost Street
 Brooklyn NY 11211
 Tel (718) 387-9701

N **Pacific Forest Resources**
 Don Couer or Ashu Vayas
 200 Tamal Plaza Suite 200
 Corte Madera CA 94925
 Tel (415) 927-1700

CONNECTICUT

Hellman Trading Inc.
 Mr. D.B. Hellman
 President
 420 E. Main St., Bldg. #3, Unit 12
 Branford CT 06405
 Tel (203) 481-7286
 Fax (203) 488-1374

N **KANSAS Recycling & Trucking**
 Mr. Jim Spero
 53 Frost Street
 Brooklyn NY 11211
 Tel (718) 387-9701

CONNECTICUT (continued)

Paper Recycling International
 Mr. Richard Gordon
 Northeast Sales Manager for Connecticut
 475 Ludlow Avenue
 Buffalo NY 14227
 Tel (716) 891-6300
 Fax (716) 891-9005

N **Pacific Forest Resources**
 Don Cotter or Ashu Vayas
 200 Tamal Plaza Suite 200
 Corte Madera CA 94925
 Tel (415) 927-1700

N **Automated Material Handling**
 Mr. Bob Paterson
 655 Christian Lane
 Kensington CT 06037
 Tel (203) 223-3601

Pacific Forest East Inc.
 Mr. Jim Derrico
 Vice President
 2777 Summer Street
 Stamford CT 06905
 Tel (203) 975-7788
 Fax (203) 327-6701

Third Century Recycling Inc.
 Mr. David Swirsky
 President
 260 Railroad Hill Street
 Waterbury CT 06708
 Tel (203) 574-3131
 Fax (203) 754-6410

Hershman Recycling Inc.
 Mr. Ethan Hershman
 President
 375 Morgan Lane
 West Haven CT 06516
 Tel (203) 933-7879
 Fax (203) 933-6440

For your convenience in locating a company, in your area, they have been arranged alphabetically by state and alphabetically by the city name within the state.

<u>Company Name</u>	<u>Look Under</u>
Alternative Recycling, Inc.....	Lancaster, Pennsylvania
All-Weather Insulation Co. Inc.....	Springfield, Kentucky
American Cellulose Manufacturing Inc.....	Minonk, Illinois
American Environmental Products.....	Rockville, Maryland
American Paper Bedding.....	Philadelphia, Pennsylvania
Applegate Insulation Mfg. Inc.....	Phoenix, Arizona
	Okemos, Michigan
Armstrong World Industries Inc.....	Macon, Georgia
Austell Box Board/Carastar Industries.....	Austell, Georgia
Baldwinville Products.....	Baldwinville, Massachusetts
Banner Fiberboard Co.....	Wellsburg, West Virginia
Barry Springer Inc.....	Sabbatus, Maine
Beloit Box Board Co. Inc.....	Beloit, Wisconsin
Big M.....	Palmyra, Michigan
Bonded Insulation.....	Hagaman, New York
Bowater, Inc.....	Millinocket, Maine
	Calhoun, Tennessee
Brandywine Paperboard Mills.....	Downingtown, Pennsylvania
Brownville Speciality Paper.....	Brownville, New York
Buffalo Paperboard Corp.....	Lockport, New York
CC & C Recycling.....	Des Moines, Iowa
Carotell Paperboard.....	Taylors, South Carolina
Cascades (Joliette) Inc.....	Joliette, Province of Quebec, Canada
Cellin Manufacturing Inc.....	Elkwood, Virginia
Cellulose Insulation Mfg. Inc.....	Midvale, Utah
Celotex Corp.....	Goldsboro, North Carolina
	San Antonio, Texas
Central Fibers.....	Wellsville, Kansas
	North Canton, Ohio
Certain Teed Corporation.....	Milan, Ohio
Champion Insulation Inc.....	Lomira, Wisconsin
Chattanooga Paperboard Corp.....	Chattanooga, Tennessee
Chesapeake Paperboard Co.....	Baltimore, Maryland
Chicago Paperboard Corporation.....	Chicago, Illinois
Consolidated Packaging Corp.....	Fort Madison, Iowa
Data Disintegration.....	Detroit, Michigan
Domtar Gypsum.....	Vernon, California
Electra Manufacturing/Forest Wool.....	Wauseon, Ohio
Erie Energy Products Inc.....	Erie, Pennsylvania
FSC Paper Co.....	Alsip, Illinois
Fiber Master Inc.....	Monroe, Louisiana
Fort Howard Co.....	Muskogee, Oklahoma
	Green Bay, Wisconsin
Fraser Paper.....	Maine (Edmunston, Canada)
Fripp Fibre Forms Inc.....	Tisdale, Saskatchewan, Canada
G.E. Robertson & Co. Inc.....	Hinsdale, New Hampshire
Georgia Pacific.....	Atlanta, Georgia
	Gary, Indiana
	Ardmore, Oklahoma
	Pryor, Oklahoma
	Jarratt, Virginia
Greener Earth.....	Bennington, Vermont
Hamilton Manufacturing.....	Twin Falls, Idaho
Henry Molded Products.....	Lebanon, Pennsylvania
Impact Packaging Systems.....	Vancouver, British Columbia, Canada
International Cellulose Corp.....	Houston, Texas

Users

<u>Company Name</u>	<u>Look Under</u>
Jefferson Smurfit Corp.....	Jacksonville, Florida
John's Recycling Center	Cedartown, Georgia
Johnson Recycling Inc.	Delevan, Wisconsin
Kord Products.....	Hillsboro, Wisconsin
Louisiana Pacific Canada Ltd.....	Burlington, Ontario, Canada
Louisiana-Pacific Corp.....	Port Hawkesbury, Nova Scotia, Canada
	Savage, Maryland
	Fenton, Missouri
Lydall Inc.	Manchester, Connecticut
Manville Corp (Schuler Co.).....	Natchez, Mississippi
Maryland Paper.....	Williamsport, Maryland
Mat, Inc.	Floodwood, Minnesota
Mauston Area Recycling Service.....	Manston, Wisconsin
Modern Insulation Inc.	Spencer, Wisconsin
Mountain Fiber Co.....	Hyrum, Utah
Natick Paperboard Co.....	Natick, Massachusetts
National Fiber	Belchertown, Massachusetts
National Gypsum Co.....	Milton, Pennsylvania
Newman & Co. Inc.	Philadelphia, Pennsylvania
Newark Atlantic Paperboard CO.....	Lawrence, Massachusetts
Newark Boxboard Co.	Newark, New Jersey
Newstech Recycling Inc.....	Vancouver, British Columbia, Canada
Northern Tier Solid Waste Authority.....	Blossburg, Pennsylvania
Nu-Wool Co., Inc.	Jenison, Michigan
PABCO Paper	Vernon, California
Packaging Corp. of America.....	Plattsburgh, New York
Paper Recycling Company, Inc.....	Depew, New York
Parko Insulation.....	Norfolk, Nebraska
Penma Flake Corporation.....	Greenville, Mississippi
RPH Enterprises Inc.	Jacksonville, Florida
Recuperation Cascades Inc.....	Kingsley Falls, Province of Quebec, Canada
Recycled Fibers of Ohio	Moraine, Ohio
Red Hook Paper Inc.....	Red Hook, New York
Redi-Therm Insulation.....	Salt Lake City, Utah
Republic Paperboard Co.	Hutchinson, Kansas
Rich Insulation Co.....	Bath, New Hampshire
Rock-Tenn Co.....	Eaton, Indiana
	Chattanooga, Tennessee
Sealed Air Corp.	High Point, North Carolina
Seminole Kraft Corporation	Jacksonville, Florida
Simkins Industries Inc.....	Catonsville, Maryland
Simplicity Pattern Co. Inc.....	Niles, Michigan
Smith's Livestock Bedding.....	Ashville, New York
Smurfit Recycling.....	Bakersfield, California
Sonoco Products Inc.	Atlanta, Georgia
	Rockton, Illinois
	Newport, Tennessee
Sorenson Paperboard.....	Palmyra, Michigan
Southern Cellulose Inc.....	Atlanta, Georgia
Stal-Eaton Wood Products.....	West Swazey, New Hampshire
Stone Container Corp.	Uncaseville, Connecticut
Suburban Insulation Inc.....	Hagerstown, Maryland

<u>Company Name</u>	<u>Look Under</u>
Tagsons Paper Inc.....	Albany, New York
Tamko Asphalt Products.....	Phillipsburg, Kansas Frederick, Maryland
The Columbia Corp.....	North Hoosick, New York
Thermoguard Insulation Co.....	Billings, Montana Spokane, Washington
Total Recycling.....	Boswell, Pennsylvania
Tri-State Insulation Co.....	Miller, South Dakota
Tussey Mountain Recycling.....	Pittsfield, Pennsylvania
United States Gypsum Co.....	Jacksonville, Florida Oakfield, New York
Valley Converting Co.....	Toronto, Ohio
Vermont Rural Recyclers.....	Marshfield, Vermont
Vernacare Corp.....	Ontario, Canada
WINR.....	Prairie du Sac, Wisconsin
West Michigan Disposal.....	Traverse City, Michigan or Cadillac, Michigan
Wisconsin Paperboard.....	Milwaukee, Wisconsin
Wood Fibre Industries.....	Lisbon Falls, Maine
Wood Recycling, Inc.....	Peabody, Massachusetts

ALABAMA

ALASKA

ARIZONA

Applegate Insulation Mfg. Inc.
Ms. Karen Miller
General Manager
3404 W. Papago Suite 101
Phoenix AZ 85009
Tel (602) 272-7528
Fax (602) 278-8334

ARKANSAS

Celotex, Inc.
Mr. Billy Kelley
303 Barrett Street
Camden AR 71701
Tel (501) 231-4391
Restrictions: Water Soluble only
Capacity: 1500 tons/year (est)

Felt Mill Celotex Corp.
Mr. Billy Kelley
Felt Mill Supt.
303 Barrett Street
Camden AR 71701
Tel (501) 231-4391
Fax (501) 231-4394

Smurfit Recycling
Ms. Virginia McCabe
General Manager
2710 O Street
Bakersfield CA 93301
Tel (805) 327-3841
Fax (805) 322-5848

Domtar Gypsum
Ms. Jane Boyd
Sales Manager
2116 E. 55th Street
Vernon CA 90058
Tel (213) 583-0094
Fax (213) 585-7409

CALIFORNIA (continued)

PABCO Paper
Mr. Paul Jordan
Technical Director
P.O. BOX 58367
Vernon CA 90058
Tel (213) 581-6113
Fax (213) 581-0125

COLORADO

CONNECTICUT

Lydall Inc.
Mr. Donald C. Cossette
Plant Manager
One Colonial Road
P.O. BOX 871
Manchester CT 06040-0871
Tel (203) 646-1233
Fax (203) 646-4917

Stone Container Corp.
Mr. Lew Armstrong
125 Depot Road
P.O. BOX 1500
Uncasville CT 06382
Tel (203) 848-1500
Restrictions: Small quantities of OTD

DELAWARE

DISTRICT OF COLUMBIA

FLORIDA

R R.P.H. Enterprises
Mr. Roger Hollenback
President
1454 Belvedere Avenue
Jacksonville FL 32205
Tel (904) 387-5571

**SAN FRANCISCO-AREA
WASTE PAPER DEALERS**

May 9, 1994

TYPES OF PAPER ACCEPTED

OTHER PRODUCTS ACCEPTED

WASTEPAPER DEALERS

W.L. CPO CLRD OCC MIXED ONP MAGS. TELE. BLUE BOOKS PRINTS

ALUM. BTLS CANS CON.DESTR.

All Star Recycling 998 Indiana St. S.F. CA 94107 CONTACT: Pat Fitzgerald 550-7500 Fax: 415-821-7945	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes
	Min. lbs.	500	500	500								
	Req'd :											
PROVIDE CENTRAL CONTAINERS: Yes										WILL PICK UP MATERIAL Consolidated Only On Each Floor Yes Yes		

NOTES: Pickups can be pre-scheduled or on an "on call" basis. Small charge for confidential destruction. OCC accepted for drop-off. Btls. & cans picked up with high grades

Angel Recycling 932 Guerrero St. San Francisco CA 94110 CONTACT: Philip Rose 206-1900 Fax:	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	No
	Min. lbs.	100	100	100								
	Req'd :											
PROVIDE CENTRAL CONTAINERS: No										WILL PICK UP MATERIAL Consolidated Only On Each Floor Yes Yes		

NOTES: Will pick up ONP, bottles and cans with pickup of W.L. and CPO only.

Author Industries 1091 Bush St. S.F. CA 94109 CONTACT: Bill Norton 885-5735 Fax:	Yes	Yes	Yes	Yes	No	Yes	No	No	No	Yes	Yes	No
	Min. lbs.	100	100	100								
	Req'd :											
PROVIDE CENTRAL CONTAINERS: Yes										WILL PICK UP MATERIAL Consolidated Only On Each Floor Yes Yes		

NOTES: Will pick up ONP in limited quantities with W.L. and CPO

C.P. A. 924 Divisadero St. S.F. CA 94115 CONTACT: C.P.Artholee 563-3745 Fax:	Yes	Yes	No	No	No	No	No	No	Yes	Yes	Yes	No
	Min. lbs.	100	100									
	Req'd :											
PROVIDE CENTRAL CONTAINERS: Yes										WILL PICK UP MATERIAL Consolidated Only On Each Floor Yes Yes		

NOTES:

Excel Recycling 547 5th Avenue San Bruno CA 94066 CONTACT: Steve Walsh 588-8092 Fax:	Yes	Yes	No	No	No	No	No	No	No	No	No	No
	Min. lbs.	100	100									
	Req'd :											
PROVIDE CENTRAL CONTAINERS: Yes										WILL PICK UP MATERIAL Consolidated Only On Each Floor Yes Yes		

NOTES: Services areas from San Francisco down to San Mateo

G&C Paper Recycling Salvage 1000 1st St.	Yes	Yes	Yes	No	No	Yes	No	No	No	Yes	Yes	Yes
	Min. lbs.											
	Req'd :											

NOTE: Desk-top trays are available free of charge to San Francisco businesses through the S.F. Recycling Program. For more information call: 554-3400. Listing in this guide does not constitute an endorsement by the City of San Francisco.

***LEGEND:** W.L - White ledger CLRD - Colored
 CPO - Computer Printout OCC - Cardboard
 ONP - Old Newspaper MAGS- Magazine

**SAN FRANCISCO-AREA
WASTE PAPER DEALERS**

May 9, 1994

TYPES OF PAPER ACCEPTED

OTHER PRODUCTS ACCEPTED

WASTEPAPER DEALERS

2425 6th St.

Berkeley CA 94710

CONTACT: George Willis

843-7025 Fax:

Mln. lbs. 200 200

Req'd:

PROVIDE CENTRAL CONTAINERS: Yes

W.L. CPO CLRD OCC MIXED ONP MAGS. TELE. BLUE BOOKS PRINTS

BTLS ALUM. CANS CON.DESTR.

WILL PICK UP MATERIAL
Consolidated Only On Each Floor
Yes Yes

NOTES: Confidential destruction for a small charge.

Golden Gate Disposal

900 Seventh St.

San Francisco CA 94107

CONTACT: Adam Kaye

553-2900 Fax: 415-553-2905

Yes Yes Yes Yes Yes Yes Yes Yes No

Mln. lbs. 800 800 1-toter 1 yd.-flat 1-toter w/mix

Req'd:

PROVIDE CENTRAL CONTAINERS: Yes

Yes Yes No

WILL PICK UP MATERIAL
Consolidated Only On Each Floor
Yes No

NOTES: Only servicing current GGD customers. Fee-based mixed paper program - Incl: all paper grades except blueprints. OCC program avail. Call for more info on range of programs.

Haight Ashbury Neighborhood Council

780 Frederick

S.F. CA 94117

CONTACT: Kevin Drew

753-0932 Fax: 415-665-8124

Yes Yes Yes Yes Yes Yes Yes Yes Yes

Mln. lbs. 300 300

Req'd:

PROVIDE CENTRAL CONTAINERS: Yes

Yes Yes No

WILL PICK UP MATERIAL
Consolidated Only On Each Floor
Yes Yes

NOTES: Non-profit community recycler. Collects from bars and restaurants. Collects used toner cartridges.

K&R Paper Recycling

547 Fifth Ave.

San Bruno CA 94066

CONTACT: Kathy Costa

588-8092 Fax:

Yes Yes No No No No No No No

Mln. lbs. 150 150

Req'd:

PROVIDE CENTRAL CONTAINERS: Yes

No No Yes

WILL PICK UP MATERIAL
Consolidated Only On Each Floor
Yes Yes

NOTES: Charge for confidential destruction. Services businesses from the San Mateo-area south to San Jose

National Recycling Corp.

1312 Kirkham

Oakland CA 94607

CONTACT: Richard Wang

288-1022 Fax:

Yes Yes Yes No No No No No No

Mln. lbs. 200 200 200

Req'd:

PROVIDE CENTRAL CONTAINERS: No

Yes Yes Yes

WILL PICK UP MATERIAL
Consolidated Only On Each Floor
Yes No

NOTES: Will pick up on multiple floors with quantities over 200 lbs.

Northern Cal Pulp & Paper Inc.

2085 Wayne Ave

San Leandro CA 94577

Yes Yes Yes Yes Yes Yes Yes Yes Yes

Mln. lbs. 500 500

Req'd:

No Yes Yes

WILL PICK UP MATERIAL

NOTE: Desk-top trays are available free of charge to San Francisco businesses through the S.F. Recycling Program. For more information call: 554-3400. Listing in this guide does not constitute an endorsement by the City of San Francisco.

***LEGEND:** W.L - White ledger CLRD - Colored
CPO - Computer Printout OCC - Cardboard
ONP - Old Newspaper MAGS- Magazine

**SAN FRANCISCO-AREA
WASTE PAPER DEALERS**

May 9, 1994

TYPES OF PAPER ACCEPTED

OTHER PRODUCTS ACCEPTED

WASTEPAPER DEALERS

W.L.	CPO	CLRD	OCC	MIXED	ONP	MAGS.	TELE. BOOKS	BLUE PRINTS
------	-----	------	-----	-------	-----	-------	-------------	-------------

BTLS	ALUM. CANS	CON.DESTR.
------	------------	------------

CONTACT: Troy Bronstein
483-3255 Fax: 510-483-3852

PROVIDE CENTRAL CONTAINERS: Yes

Consolidated Only On Each Floor
Yes No

NOTES:

Paper Recovery

25670 Nickel Place
Hayward CA 94545
CONTACT: Dan Mollat
785-7311 Fax: 510-785-7311

	Yes	Yes	Yes	No	No	No	No	No	No
Min. lbs.	500	500	1000						
Req'd:									

PROVIDE CENTRAL CONTAINERS: Yes

No No Yes
WILL PICK UP MATERIAL
Consolidated Only On Each Floor
Yes Yes

NOTES:

Paper Rush

2372 Jerrold Ave.
S.F. CA 94124
CONTACT: Michael Tran
282-2344 Fax: 415-282-2359

	Yes	Yes	Yes	No	No	Yes	No	No	No
Min. lbs.	800	800	800						
Req'd:									

PROVIDE CENTRAL CONTAINERS: Yes

Yes Yes No
WILL PICK UP MATERIAL
Consolidated Only On Each Floor
Yes Yes

NOTES: Will pick up bottles and cans with W.L. and CPO

Porta Pulper

800 S. Amphlett Blvd.
San Mateo CA 94402
CONTACT: Jim Gitas
510-344-6336 Fax: 510-344-6359

	Yes	Yes	Yes	No	Yes	No	No	No	Yes
Min. lbs.	500	500			1000				
Req'd:									

PROVIDE CENTRAL CONTAINERS: Yes

No No Yes
WILL PICK UP MATERIAL
Consolidated Only On Each Floor
Yes Yes

NOTES:

REA

249 Anza St.
S.F. CA 94159
CONTACT: Dave Williamson
387-3117 Fax:

	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes
Min. lbs.	100	100							
Req'd:									

PROVIDE CENTRAL CONTAINERS: Yes

Yes Yes No
WILL PICK UP MATERIAL
Consolidated Only On Each Floor
No Yes

NOTES: Nonprofit community recycler. Will pick up small quantities of other paper grades only with high grades. Collects bar and restaurant glass. Telephone books are drop-off only.

Recycled Fibers

6555-B Smith Ave.
Newark CA 94560
CONTACT: Brian McLean

	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
Min. lbs.	2000	2000		2000					
Req'd:									

PROVIDE CENTRAL CONTAINERS: Yes

No Yes Yes
WILL PICK UP MATERIAL
Consolidated Only On Each Floor

NOTE: Desk-top trays are available free of charge to San Francisco businesses through the S.F. Recycling Program. For more information call: 554-3400. Listing in this guide does not constitute an endorsement by the City of San Francisco.

***LEGEND:** W.L. - White ledger CLRD - Colored
CPO - Computer Printout OCC - Cardboard
ONP - Old Newspaper

**SAN FRANCISCO-AREA
WASTE PAPER DEALERS**

May 9, 1994

TYPES OF PAPER ACCEPTED

OTHER PRODUCTS ACCEPTED

WASTEPAPER DEALERS

795-7228	Fax: 510-795-1391	W.L.	CPO	CLRD	OCC	MIXED	ONP	MAGS.	TELE. BOOKS	BLUE PRINTS	BTLS	ALUM. CANS	CON.DESTR.
PROVIDE CENTRAL CONTAINERS: Yes											Yes	No	

NOTES:

Secondary Fiber Products

33379 Railroad Ave. Union City CA 94587 CONTACT: Dan Martin 487-4995	Fax:	Yes	Yes	Yes	No	No	Yes						
Min. lbs. 1000 1000 Req'd :											WILL PICK UP MATERIAL Consolidated Only On Each Floor		
PROVIDE CENTRAL CONTAINERS: No											Yes	No	

NOTES: Mixed paper program available. Glass and alum. with high grades only.

Smurfit Recycling Co.

3300 Wood Street Oakland CA 94608 CONTACT: Bob Peterson 428-9499	Fax: 510-654-0189	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes	No
Min. lbs. 1000 1000 Req'd : Baled											WILL PICK UP MATERIAL Consolidated Only On Each Floor		
PROVIDE CENTRAL CONTAINERS: Yes											Yes	No	

NOTES: Deals with accounts that have space for 2-yard dumpsters or larger for paper storage.

Steve Dang

972 Rutland Ave. S.F. CA CONTACT: Steve Dang 334-4756	Fax:	Yes	Yes	Yes	No	No	No	No	No	No	Yes	Yes	No
Min. lbs. 50# 50# 50# Req'd :											WILL PICK UP MATERIAL Consolidated Only On Each Floor		
PROVIDE CENTRAL CONTAINERS: Yes											Yes	Yes	

NOTES: Picks up primarily from 3:00 p.m. to midnight

Sunset Scavenger

Tunnel Ave. & Beatty Rd. San Francisco CA 94134 CONTACT: Sonia Estrada 330-1370	Fax: 415-330-1338	Yes	No	Yes	Yes	No							
Min. lbs. 150 150 150 Req'd : 150											WILL PICK UP MATERIAL Consolidated Only On Each Floor		
PROVIDE CENTRAL CONTAINERS: Yes											Yes	No	

NOTES: Only service current Sunset Scavenger customers. Containers need to be accessible at street level. OCC should be min. of 3ft. high and stacked flat.

The Sutta Company

3401 Wood St. Oakland CA 94608 CONTACT: Bill McGowan 652-8588	Fax:	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes
Min. lbs. 10,000 10,000 Req'd :											WILL PICK UP MATERIAL Consolidated Only On Each Floor		
PROVIDE CENTRAL CONTAINERS: No											Yes	No	

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WASTEPAPER DEALERS

W.L. CPO CLRD OCC MIXED ONP MAGS. TELE. BLUE BOOKS PRINTS

ALUM. BTLs CANS CON.DESTR.

NOTES: Specialize in large printing companies or very large paper generators (10,000 lbs. or larger).

Waste Resource Technologies

895 Egbert Ave.

San Francisco, CA 94124

CONTACT: Lisa Bauer

822-2175

Fax: 415-822-3852

	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No
Min. lbs.	500	500	500	see notes	400/wk				
Req'd :									

PROVIDE CENTRAL CONTAINERS: Yes

Yes Yes Yes

**WILL PICK UP MATERIAL
Consolidated Only On Each Floor**
Yes Yes

NOTES: Bottles & cans with high grades only. Charge for confidential destruction. Minlms on W.L., CPO & CLRD are cumulative for all 3 grades. OCC & mixed - call for details. Accepts other materials.

West Coast Salvage & Recycling

350 Rhode Island St.

S.F. CA 94103

CONTACT: Chris Levaggi

621-3840

Fax: 415-621-5038

	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Min. lbs.	500	400	700			w/hi-gr			
Req'd :									

PROVIDE CENTRAL CONTAINERS: Yes

Yes Yes Yes

**WILL PICK UP MATERIAL
Consolidated Only On Each Floor**
Yes Yes

NOTES: Will picks up bottles, cans, ONP with pickup of W.L. and CPO only.

Weyerhaeuser Paper Co.

925 Toland St.

S.F. CA 94124

CONTACT: Denise Yamamoto

821-0900

Fax:

	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
Min. lbs.	500	500							
Req'd :									

PROVIDE CENTRAL CONTAINERS: Yes

No No Yes

**WILL PICK UP MATERIAL
Consolidated Only On Each Floor**
Yes Yes

NOTES: Offers a mixed office (super mix) paper program. Call for details

Youth Enterprises Recycling

3641 Haven Ave.

Menlo Park CA 94025

CONTACT: Michael McColl

583-3745

Fax:

	Yes	Yes	Yes	No	No	No	No	No	No
Min. lbs.	400	400	400						
Req'd :									

PROVIDE CENTRAL CONTAINERS: Yes

Yes Yes Yes

**WILL PICK UP MATERIAL
Consolidated Only On Each Floor**
Yes Yes

NOTES: Nonprofit recycler. Accepts used toner cartridges. Will collect from restaurants & bars. Charge for confidential destruction.

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TELEPHONE BOOK RECYCLING

04/25/94

FILENAME: hotline.doc

ALAMEDA

BERKELEY DROP OFF
669 GILLMAN ST.
BERKELEY, CA. 94710
510-524-0113

ECOLOGY
1231 2ND STREET
BERKELEY, CA. 94710
510-527-7555

MERRIT COLLEGE RECYCLING CENTER
12500 CAMPUS DRIVE
OAKLAND, CA 94602
510-891-3912

SAN LEANDRO COMM. RECYCLE
1990 MARINA BLVD.
SAN LEANDRO 94577
(510) 483-7084

NATIONAL RECYCLING CORP
1312 KIRKHAM
OAKLAND, CA 94607
510-268-1022

AMADOR

THE BUY BACK
CORNER OF 2ND AND GILMAM
BERKELEY, CA. 94710
(510) 524-0113

CALAVERAS
SMART RECYCLING
197 E. ST. CHARLES
SAN ANDREAS CA 95249
209-754-5320

THE BUY BACK
DWIGHT AND MARTIN LUTHER KING
BERKELEY, CA. 94710
510-848-5879

CONTRA COSTA

RECYCLE AMERICA
2615 DAVIS ST.
SAN LEANDRO CA.
510-638-4327

EL CERRITO RECYCLING
10890 SAN PABLO
EL CERRITO, CA 94530
510-215-4350

NORTHERN CALIF. PULP & PAPER
2085 WAYNE AVE.
SAN LEANDRO, CA. 94577
510-483-3255

FRESNO

AMERICAN MOBILE SHREDDING, INC.
5750 EAST SHIELDS STE. 104
FRESNO, CA. 93727
209-292-3927

RECYLED FIBERS
6565-B SMITH AVE
NEWARK 94560
510-795-7220

YOUTH SERVICES
2632 ELM ST.
FRESNO 93706
(209) 498-6131

TELEPHONE BOOK RECYCLING

FRESNO STATE RECYCLING CENTER
CORNER OF BARSTOW AND MAPL
FRESNO, CA 93740
209-278-4097

RE-CY-CO
929 N. MAPLE
FRESNO, CA 93702
209-255-5690

CITY OF KINGSBURG
1200 KERN ST.
KINGSBERG, CA 93631
209-897-1066

HUMBOLDT

IMPERIAL

ARC INDUSTRIES
502 E. MAIN
EL CENTRO CA 92243
619-352-2236

KERN

ASS.FOR RETARDED CITIZENS
2240 S. UNION
BAKERSFIELD CA 93307
805-834-2272

COORS RECYCLING
2101 WHITE LANE
BAKERSFIELD CA 93304
805-834-9933

CITY OF BAKERSFIELD
AT VALLEY MALL
BAKERSFIELD, CA. 93309
805-326-3114

NEW WORLD RECYCLING
1420 "N" ST
BAKERSFIELD CA 93301
805-325-3508

SMURFIT RECYCLE
2710 "O" ST.
BAKERSFIELD, CA.93302
805-327-3841

TRIPLE H RECYCLING
541 HWY 46
WASCO,CA. 93280
805-758-2167

KINGS

K.A.R.E.
980 SOUTH 10TH AVENUE
HANFORD, CA 93230
209-584-0822

LAKE

SOLID WASTE DEPT.
EAST DAVIS ST @ DEAD END
CLEARLAKE CA 95422
707-263-2381

TIMBERLINE DISPOSAL
910 BEVINS CT.
LAKEPORT CA 95453
707-263-7682

TELEPHONE BOOK RECYCLING

LOS ANGELES

BURBANK RECYCLING
500 S. FLOWER ST.
BURBANK, CA. 91502
818-953-3152

JOHNS PAPER FIBERS
571 S. HARBOR BLVD
LA HABRA, CA. 90631
310-697-9845

CAL COAST RECYCLING
20833 SANTA CLARA ST
CANYON COUNTRY CA 91351
805-252-0404

SMURFIT RECYCLING CO.
20502 SOUTH DENKER AVE
TORRANCE, CA. 90501
310-533-0333

AMBIT RECYCLING
16222 FIGUERA ST.
GARDENA CA. 90248
310-538-3798

SANTA MONICA RECYCLING
2411 DELAWARE
SANTA MONICA, CA. 90401
319-453-9677

HI-WASTE RECYCLING
11718 ARKANSAS ST.
ARTESIA CA. 90701
310-865-8068

MASTER DISPOSAL
2852 DURFEE AVE.
EL MONTE CA. 91732
818-442-4242

COMMERCIAL WASTE PAPER CO.
9610 EAST RUSH
S. EL MONTE CA 91733
213-283-5635

REDONDO RECYCLING CENTER
2420 MARINE AVE.
REDONDO BEACH, CA 90278
310-374-4006

MARIN

"B" STREET COPY
54 "B" STREET
POINT REYES STATION, CA. 94956
415-663-9108

MENDOCINO

MENDOCINO RECYCLING
940 WAUGH LANE
UKIAH, CA 95482
707-468-0228

SOLID WASTE OF WILLITS
285 N. LENORE ST.
WILLITS, CA. 95490
707-459-0272

FORT BRAGG DISP.
219 PUDDING CREEK RD.
FORT BRAGG, CA. 95437
707-964-9172

TELEPHONE BOOK RECYCLING

MERCED

T.F.D ENTERPRISES INC.
830 "I" STREET
LOS BANOS, CA 93635
209-826-1965

JOHN'S PAPER FIBERS
1250 E. WALNUT
FULLERTON, CA 92631
714-525-4567

MONTEREY

CR & R RECYCLING
11262 WESTERN AVE
STANTON, CA. 90680
714-826-9049

ORANGE

C.V.T. RECYCLING CENTER
2761 BLUE GUM AVE.
ANAHEIM, CA 92806
714-630-8615

ORANGE COAST COLLEGE
ADAM ST.(BETWEEN HARBOR & FAIRVIEW)
COSTA MESA, CA 92626
(714) 432-5131

AMERICAN RECYCLING
1200 WEST STRUCK
ANAHEIM, CA 92806
714-771-7644

ORANGE CO. SCRAP & RECYCLE
919 E. SOUTH STREET
ANAHEIM, CA 92805
714-635-2181

CITY CURBSIDE PROGRAMS
Anaheim, Brea, Placentia,
Garden Grove, Yorba Linda
714-632-7534

SUNSET ENVIRONMENTAL
16182 CONSTRUCTION CIRCLE WEST
IRVINE, CA 92714
714-551-5714

CALIFORNIA PAPER STOCK
377 S. GLASSELL ST.
ORANGE, CA 92666
714-744-4899