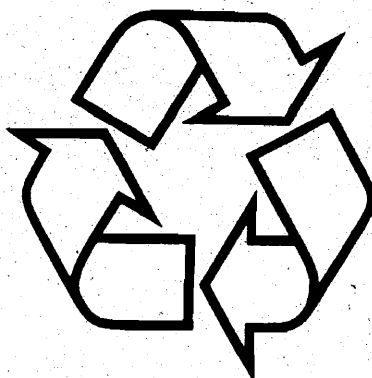


LAW OFFICE PAPER RECYCLING PROGRAMS

Opportunities And Choices
For The 21st Century



**REPORT AND RECOMMENDATIONS OF
THE BOSTON BAR ASSOCIATION
RECYCLING TASK FORCE**



April 1994

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EXECUTIVE SUMMARY

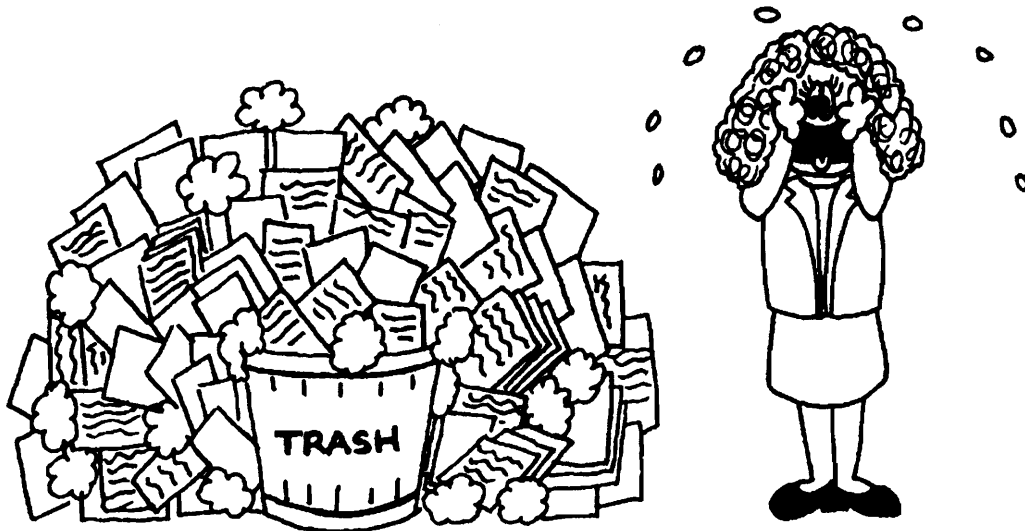
The American Bar Association estimates that each of the country's 600,000 lawyers uses, on average, 1 ton of paper a year. If America's lawyers utilized paper with 50% recycled content, the country would save more than 5 million trees, 1.23 billion kilowatt hours of energy, over 2 billion gallons of water and 1 million cubic yards of landfill space each and every year.

The Boston Bar Association ("BBA") Recycling Task Force was convened to evaluate and promote "closed loop" recycling programs. Such programs involve recycling wastepaper and purchasing recycled office products, and result in both economic and environmental benefits for law offices and other businesses. To that end, Task Force members surveyed more than 400 law firms of all sizes and several government agencies located in the Boston area. In general, we were pleased to discover that more firms than expected participated in some form of recycling program, although most recycling efforts were not comprehensive. We were disappointed to learn that few firms had active programs for the preferred procurement of recycled paper and office products.

More recently on the federal level, President Clinton issued an Executive Order directing federal agencies to

purchase paper with a progressive percentage of post-consumer recycled content. Closer to home, Governor Weld issued the Massachusetts Clean State Executive Order No. 350 which requires all state agencies to develop pollution prevention and resource conservation plans, including "closed loop" recycling programs. Law offices and the judiciary have the opportunity to join with the President and the Governor in creating a recycling future. The BBA Recycling Task Force prepared this Report to assist law offices with the implementation of successful and comprehensive paper recycling programs.

The legal profession stands as a potentially influential player affecting the transition from paper disposal to paper collection and procurement. This Report contains models of "closed loop" recycling programs in small, medium, and large law offices as well as "building-wide" recycling programs. Such programs can be easily transposed to other professions which similarly generate and discard large quantities of office paper. The members of the BBA Recycling Task Force urge lawyers to "close the loop" on recycling by committing to both the collection of recyclable wastepaper and the procurement of recycled paper products.



I. INTRODUCTION

A. Opportunities and Choices

Recycling is America's symbol of environmentalism. It is the most common environmental activity in which people participate. Public interest in recycling is high. One-third of all Americans have access to curbside collection programs. States, government agencies, and companies are adopting collection and "buy-recycled" programs. Law office participation in paper collection programs is high and growing. The country's mills are producing more recycled paper than ever before and virtually every grade of paper is now available in a recycled sheet.

However, the future of paper recycling is not entirely optimistic. Recycling is a business and, as such, is driven by the simple economics of supply and demand. During the so-called Great Waste Paper Crash of 1991, 28 percent of greater Boston's wastepaper dealers were either sold or went out of business because the paper glut from wastepaper recovery efforts in 1990 had driven the price paid to suppliers of white paper from \$60 a ton in 1990, to zero in 1991, and back up to \$40 a ton in 1992.¹ In 1992, our country collected 440,000 more tons of wastepaper than was used to make recycled paper. In 1995, the U.S. will collect 4.5 million tons of white office paper, but printing and writing paper manufacturers will use only 800,000 tons.² Only six percent of post-consumer printing and writing paper is currently recycled into paper.³

Paper collection programs are also in financial trouble as the price paid for wastepaper continues to decline. Recycling markets in the Northeast remained flat in 1992, and two recycled paper mills, one located in Massachusetts, closed due to insufficient demand for recycled paper.⁴ Simply put, manufacturers are reluctant to retrofit old mills or invest in new facilities if there is not sufficient market demand for recycled paper products. In a 1992 survey and analysis of state paper procurement policies, goals and performance, Massachusetts ranked 29th among the states with its purchase of \$1.5 million in recycled paper, only about one-third of the total amount of paper purchased by the Commonwealth that year.⁵

The three chasing arrows of the recycling logo⁶ represent the three components of paper recycling: The collection of scrap material, the manufacture of products using that material, and the purchase of recycled products. While consumers believe that recycling begins with the sorting and collection process, paper recycling truly begins with the purchase of recycled paper products. Manufacturers make more recycled paper products as consumer demands increase. As manufacturing increases, collection programs will have markets for their wastepaper. "Markets, markets, markets" will be the recycling buzzphrase for the 1990s. Accordingly, the key to enhancing paper recycling is the purchase of recycled paper products.

1. Federal and State Leadership

Recent initiatives by President Clinton and Governor Weld should advance the cause of paper recycling because the initiatives focus on increasing demand. These initiatives may also provide models for other states and businesses, such as law offices, which now have the opportunity to choose "closed loop" recycling programs.

Paper recycling was given a big boost last October when President Clinton issued a long-awaited Executive Order directing federal agencies to buy paper with at least 20 percent post-consumer recycled content by the end of 1994, and 30 percent by the end of 1998. Paper counts as "recycled" only if it is made from raw materials from community and business recycling programs, or factory waste that otherwise would have been landfilled or burned. The federal government annually buys 300,000 tons of printing and writing paper, about 2 percent of the U.S. market for white paper. It is expected that the Executive Order will (1) create a strong market for collected paper to be recycled back into printing and writing paper; (2) create recycling jobs; and (3) reduce the amount of collected paper disposed of in landfills and incinerators.⁷ As private industry generally models recycled content standards on federal standards, so the Order should set a standard for corporate purchasing.

In February 1993, Governor Weld issued the Massachusetts Clean State Executive Order No. 350, requiring all state agencies to develop pollution prevention and resource conservation ("P2/RC") plans, including "a recycling, conservation, and source reduction and waste minimization program; [and] a program for purchasing recycled goods." The Order created an intersecretariat coordination body known as the Clean State Coordinating Council (the "Council"). In September 1993, the Council issued a practical guide for state agencies to use in developing P2/RC plans. The Council urges "green" procurement as a catalyst for developing economic markets, as well as for conserving natural resources and preventing pollution. The Massachusetts Department of Procurement and General Services ("DPGS") is expected to increase the number of agreements for products made with recycled content. In fiscal year 1993, DPGS purchased \$4.1 million of goods made with recycled content.⁸

2. The Legal Profession

The American Bar Association estimates that each of the country's 600,000 lawyers uses one ton of paper a year. If all of America's lawyers utilized paper with 50 percent recycled content, the U.S. would save more than 5 million trees, 1.23 billion kilowatt hours of energy, over 2 billion gallons of water, and 1 million cubic yards of landfill space each year.⁹ The Boston Bar Association ("BBA"), law offices and the judiciary can promote the environmental and

economic goals of paper recycling. The BBA and the Bar have the opportunity to join with the President and Governor in creating a recycling future. Present collection programs can be enhanced and new programs easily instituted and operated. Procurement policies which prefer recycled and recyclable materials are urgently needed to help develop local recycled paper markets.

The BBA Recycling Task Force prepared this Report to assist law offices with the implementation of successful "closed loop" paper recycling programs.

B. The Recycling Task Force Initiative

The success of the BBA Environmental Law Section community outreach program for Earth Day 1990, and the musings of two colleagues at a Mass Recycle annual meeting, provided the impetus for convening the Recycling Task Force in 1991.¹⁰ A series of planning meetings resulted in the establishment of a BBA Task Force to evaluate and promote recycling programs which would result in both environmental and economic benefits for law offices and other businesses. The Recycling Task Force was convened by then BBA President John P. Driscoll, Jr., with membership drawn from the private and government environmental bar and the paper industry.¹¹ The mission of the Task Force was to improve and increase paper recycling programs in Boston through the education of the legal and business communities concerning recycling opportunities, purchasing alternatives, and successful recycling programs.¹² It is believed that when law firms adopt recycling programs with preferred purchasing of recycled and recyclable products, positive environmental and economic benefits will result. Such law firms can be models for other law firms, clients and businesses, and catalysts for building-wide programs. Comprehensive law office paper recycling programs would contribute significantly to achieving the Commonwealth's recycling goals for the year 2000.

Over a 24 month period, Task Force members:

- ♦ surveyed more than 400 law firms of all sizes and government agencies located in the Boston area through written questionnaires and telephone polling;
- ♦ reviewed the federal and state legal regimes which affect paper disposal and recycling;
- ♦ assessed recycling programs in small, medium and large firms, office buildings, and state and federal government offices;
- ♦ investigated non-law office recycling programs, recycling program guides, waste paper companies, and recycled paper vendors;

- ♦ reviewed the efforts of the Massachusetts Department of Environmental Protection ("DEP") to implement the Solid Waste Master Plan by the imposition of recycling percentages and waste bans at solid waste facilities, and by promotion of recycling markets; and
- ♦ began a multi-faceted public information program including open letters from the BBA President to managing partners, mailings to BBA members,¹³ a series of advocacy articles in Massachusetts Lawyers Weekly¹⁴ and regional solid waste journals,¹⁵ telephone advice to almost 50 lawyers and law firms nationwide concerning the initiation of recycling programs, and future participation in seminars to promote the findings and recommendations of this Report.

II. RECOMMENDATIONS

The Task Force recommends that the BBA and the Bar:

1. Immediately adopt "closed loop" paper recycling programs which include:
 - ♦ waste reduction measures;
 - ♦ a wastepaper collection system; and
 - ♦ procurement of printing and writing paper with a minimum of 50 percent recycled content and 10 percent post-consumer material.
2. Form law office consortiums within buildings and enter into agreements with landlords to implement cost-effective and efficient wastepaper collection programs.
3. Form procurement cooperatives to obtain better prices on recycled paper and "green" products.
4. Advise the Massachusetts Clean State Coordinating Council ("the Council") in its development of a statewide P2/RC plan which will address fundamental regulatory and policy choices to enhance paper recycling. The Council should evaluate a DPGS procurement guideline which dedicates funds to purchasing recycled products and requires buying of paper with at least 50 percent total recycled content and 20 percent post-consumer fiber (50/20).
5. Participate in DEP's formulation of a revised Solid Waste Master Plan on paper recycling goals and the development of regulations and outreach programs to achieve those goals. In its revised Solid Waste Master Plan, DEP should consider:

- ♦ establishing achievable procurement goals (e.g., by 1995, 75 percent of paper purchases shall be recycled paper products);
 - ♦ setting progressive paper standards for total recycled content and post-consumer fiber content (e.g., 50/20);
 - ♦ adopting a meaningful definition of "post-consumer" fiber to encourage paper mills to use paper from community and business recycling programs, instead of a mill's in-house waste or saw dust; and
 - ♦ developing recycling markets, "buy-recycled" workshops and information clearinghouses.
6. Encourage initiatives calling on state and federal courts and administrative agencies to require the use of recycled paper for all pleadings, transcripts, and records on appeal; double-sided copying; and use of single spacing.¹⁶
 7. Encourage the United States Congress, during the upcoming reauthorization of the Resource Conservation and Recovery Act ("RCRA"), to shift its focus from disposal of wastepaper to recycling and waste reduction by:
 - ♦ directing EPA to work with GSA, other agencies, and the White House, to establish purchasing standards which favor the purchase of recycled paper; and
 - ♦ establishing national labeling standards for recycled products.
 8. Encourage the Massachusetts Legislature and the United States Congress to enact laws:
 - ♦ discouraging the use of timber in papermaking and allowing tax credits for the use of post-consumer materials in manufacturing paper;
 - ♦ providing a tax deduction for the purchase of recycled material that is a business-related expense; and
 - ♦ assessing disposal fees against manufacturers of virgin paper and/or providing for a waste reduction credit to manufacturers of recycled paper.

III. PAPER RECYCLING

A. Recycled Paper

Recycled paper is made from wastepaper generated by paper mills, envelope makers, print shops, homes and businesses. If the paper has ink on it, it must be "de-inked" to separate this contaminant from the paper's fibers. The high-quality pulp is then made into fine bright papers, free of dirt and imperfections. The art of recycling paper has enjoyed 20 years of research and development and now meets, or exceeds, the same technical specifications as virgin paper, especially for opacity and stability. Recycled paper is now available in every grade, including bond, offset, copier, computer, coated, and text and cover stocks. It comes in a variety of colors, shades, weights, finishes and textures.

Recycled papers are priced competitively with virgin papers. For specialty papers (e.g., letterhead, rag bond, designer), recycled paper should be equal in price or less expensive than virgin papers. However, for some grades of paper produced in mass quantities (e.g., copy and computer paper), there probably will be a cost premium of about 10 percent for the recycled paper.

1. A Short History

Paper recycling is an old idea with enduring values. For most of its history, paper has been a recycled product. Only since the 1850s have trees been cut and pulped to make paper. Paper was invented in China during the second century B.C. and was, at that time, made from rags, old fishing nets, hemp and grass. These materials were macerated into separate fibers and suspended in a watery pulp prior to formation into strips. The first recorded use of wastepaper for making new paper was in Japan in 1031 A.D. Old documents were repulped for new paper. European papermaking grew in the 15th century with the invention of the Gutenberg printing press. These papers were made from old cloth rags. For over 700 years recycled rags were the only source of papermaking fiber.

With the increase of paper consumption in Europe and America, there was a shortage of rags. In 1666, the English Parliament passed a law forbidding the use of cotton and linen for burying the dead. In the eighteenth century, American newspaper editors and mills described rag saving as a patriotic duty and one Massachusetts papermill had the watermark "SAVE RAGS." In the 1850s, American mills imported Egyptian mummies or their cloth rags to make paper.

Rag shortages led to a search for alternative fiber sources. In the mid-to-late nineteenth century, wood was selected as the source because the vast forests in the U.S., Canada and Scandinavia provided an abundant, inexpensive, and consistent source of pulp. By the early twentieth century, only a small portion of pulp needs were supplied by rags and wastepaper. World War I created pulp shortages, and old books, newspapers and business papers were recycled by the paper mills. The de-inking of wastepaper for pulp began in 1915. Although the use of virgin wood pulp has dominated the twentieth century, wastepaper as a fiber source increased during the Depression in the 1930s and again during World War II. In 1944, the industry-wide utilization rate for wastepaper was 37 percent of total paper production. The rate declined to 23 percent through the 1970s. By 1990, the rate grew to 28 percent.¹⁷ Recycled pulp use rates will likely continue to rise in response to consumer choices to the challenges and opportunities presented by the current solid waste management problem.

B. The Solid Waste Management Problem

Paper recycling in the 1990s is driven by increased volumes of municipal solid waste ("MSW"); overloaded and leaking landfills which are rapidly closing; and incinerators that pose troublesome ash landfilling and air pollutant (dioxins, acid gases, greenhouse gases, and fly ash) problems.¹⁸

In 1990, Americans generated almost 196 million tons of MSW of which 70 percent was landfilled, 17 percent was recycled, and 13 percent was incinerated.¹⁹ Massachusetts residents, businesses and industries generated almost 7 million tons of MSW of which 46 percent was landfilled, 10 percent was recycled, and 44 percent was incinerated.²⁰ EPA estimates that 216 million tons of MSW will be produced annually by the year 2000.²¹ DEP projects almost 11 million tons of MSW will be generated in Massachusetts alone by the year 2000.²²

Solid waste management became a crisis in the mid-1980s when public attention focused on the shortage of disposal capacity. In Massachusetts, garbage trucks circled the State House to demonstrate the waste industry's concern and to plea for assistance. At the national level, the Mobro garbage barge and waste trains without a destination conveyed the same message. The generation of MSW was increasing, while disposal capacity was shrinking.

The federal and state governments responded with integrated waste management plans based on the generally accepted hierarchy of waste management alternatives: source reduction, recycling and composting, incineration and, lastly, landfilling. Although there is not yet a comprehensive national recycling strategy, at least 42 states have recycling laws which target waste reduction goals that will be met by source reduction and recycling.²³

Massachusetts' recycling policy is reflected in *Toward A System of Integrated Solid Waste Management: The Commonwealth Master Plan* ("Master Plan") issued by DEP in June 1990. The *Master Plan* adopts a hierarchy of methods of solid waste management, with recycling and source reduction as the preferred methods, followed by incineration of MSW not diverted through recycling, and landfilling being the least preferred method. It sets a goal of 10 percent volume reduction from the 1990 per capita generation rate by the year 2000 and establishes a recycling goal of 34 percent by 1996 and 46 percent by 2000. Incineration would dispose of 50 percent of the MSW, and 4 percent of the non-recyclable and non-combustible waste would be landfilled in 2000.²⁴ Massachusetts is now recycling about 22 percent of its MSW.²⁵

Paper is the largest single component of MSW at 38 percent. By the year 2010, 48 percent of the waste stream will probably be paper products. Printing and writing paper is the largest component of the paper waste stream representing 15 percent.²⁶ Clearly, source reduction and recycling of printing and writing paper will significantly address the waste management crisis by conserving landfill space, and by producing a host of environmental benefits. For every ton of paper that is recycled:

- ♦ 17 trees are saved;
- ♦ 7,000 gallons of water are saved (the daily water need for 30 homes);
- ♦ 4,200 kwh of energy are saved (3/4 of the annual lighting and appliance needs for an average home);
- ♦ 3 cubic yards of landfill space are spared;
- ♦ 60 pounds of pollutants are kept out of the air; and
- ♦ jobs are created (collection, sorting, transport, de-inking, manufacturing, and marketing).²⁷

C. The Recycling Legal Regime

1. Federal Law

In 1976, the United States Congress passed the Resource Conservation and Recovery Act ("RCRA"),²⁸ providing the genesis for integrated solid waste management. RCRA addresses hazardous waste management, solid waste management, and procurement of recycled products. It prohibits the indiscriminate dumping of hazardous wastes and directs EPA to regulate its generation, transportation and disposal. Congressional appropriations and EPA efforts were focused on the "cradle-to-grave" regulation of hazardous wastes. Subtitle D of RCRA requires states to develop comprehensive plans for solid waste management and

encourages the development of "methods for the disposal of solid waste which are environmentally sound and which maximize the utilization of valuable resources including energy and materials which are recoverable from solid waste and to encourage resource conservation."²⁹ EPA procurement guidelines to encourage recycling markets were not forthcoming, but were finally issued in 1988.

In November 1984, Congress enacted the Hazardous and Solid Waste Amendments ("HSWA"),³⁰ which revitalized solid waste management by requiring EPA to revise solid waste disposal criteria for landfills. The 1991 EPA regulations³¹ revised standards for municipal solid waste landfills and provided strong economic incentives for increased source reduction and recycling. There are no mandates or prohibitions, however, with respect to recycling.

On October 31, 1991, President Bush signed Executive Order No. 12780 which included goals to increase recycling and waste reduction in the federal government, increase market demand for recycled products, and establish federal leadership in the development, study, and implementation of policies that will promote "environmentally sound and ecologically efficient waste reduction and recycling."³² Each federal agency which had not yet done so was required to implement a cost-effective waste reduction and recycling program that is compatible with state and local recycling requirements. Each federal agency was to provide a report of affirmative procurement programs to the EPA administrator. EPA was to report on the efficacy of the procurement programs within one year. Only EPA and the Government Printing Office initiated these affirmative procurement procedures.

President Clinton's recent 1993 Executive Order sets procurement requirements for recycled paper with at least 20 percent post-consumer content by the end of 1994, and 30 percent by 1998. However, no increase in federal spending on paper products is allowed under the Order. Agencies will be required to make up for any price increases by cutting paper use and waste.

RCRA is due to be reauthorized in 1994, and waste reduction and recycling are high on the agenda as Congress tries to shift the focus of RCRA from disposal to recycling and waste reduction. Debate is expected over recycled content standards and labeling standards for recycled products.³³

2. State Law

The states in the Northeast faced urgent disposal problems in the mid-1980s. Many states responded by passing mandatory recycling laws and providing financial and technical assistance to municipalities and the private sector to expand collection, processing and re-manufacturing. The Massachusetts Legislature responded to the crisis with Chapter 584 of the Acts of 1987,³⁴ which rewrote solid waste facility siting laws, provided for state grants to fund landfill

closures and the construction of landfills, and authorized DEP to prepare the *Master Plan* which banned disposal of certain classes of wastes.

DEP's 1990 *Master Plan* is committed to the maximum achievable rate of waste reduction and recycling, and articulates aggressive goals for the Commonwealth's businesses, agencies, and communities. Although the *Master Plan* is not a regulation, DEP has used it to discourage new incinerators and landfills and to encourage the development of recycling operations.³⁵ A draft revision of the *Master Plan* was released in late February 1994.

DEP has imposed mandatory recycling requirements on waste-to-energy facilities and landfills. As a condition of an operating permit, a solid waste facility is required to recycle, or to provide the opportunity to recycle, a minimum of 25 percent by weight of the average yearly amount of waste a facility is approved to accept for disposal.³⁶ Consequently, waste haulers have instituted wastepaper collection programs for apartments, condominiums and offices.

DEP is also promoting recycling through the regulatory ban on disposal of different types of wastes in landfills or incinerators by certain dates. For example, waste facilities will be prohibited from accepting for disposal recyclable paper as of December 31, 1994.³⁷

In 1988, Governor Dukakis signed Executive Order No. 279³⁸ which set forth a policy of using the purchasing power of state government to stimulate the marketplace for recycled materials by buying products that contain such materials when "available at an appropriate price and appropriate quality."³⁹ There were no clear goals or targets. Procurement regulations for recycled products authorized DPGS to contract for recycled products over virgin products, if the recycled product cost "no more than 10% higher than its equivalent virgin product."⁴⁰ From 1988 to 1990, large contracts were awarded for recycled copier paper. In 1991, the price of virgin copier paper fell drastically, making the price differential 20 percent and the recycled paper uncompetitive.

Governor Weld's recent Executive Order directs progressive planning for pollution prevention and resource conservation. However, the Order does not specifically provide new operating or capital money. Agencies will be required to make up for any price increases by successful implementation of the P2/RC plans. The Order does not change the DPGS 10% price differential for procurement of recycled products.

3. Municipal Law (City of Boston)

In 1990, the City of Boston established a Comprehensive Recycling Program by municipal ordinance, which recognized that "(r)ecycling the maximum quantity of residential and commercial solid waste is an integral component" of Boston's solid waste management strategy. It directed the development of "regulations to ensure a substantial increase

in the quantity of office waste paper recycled in Boston,” and directed the purchasing agent to “research the feasibility of revising procurement specifications in order to establish a preference for those products containing recycled materials, wherever feasible”⁴¹ and make recommendations to the Mayor. Thereafter, Boston emphasized residential recycling programs but did not act to regulate commercial recycling of office paper. A renewed interest in commercial recycling programs is needed from the reconstituted City Council and newly elected Mayor Menino.

D. Reducing Office Paper Waste

A key element in the solution to the solid waste crisis is to reduce the amount of paper used by law offices. Source reduction is as simple as double-sided copying or printing fewer copies of documents. Source reduction can be a successful waste management strategy because paper is the single largest component of the country's waste stream; law firms have a high degree of control over its use and disposal, and substantial amounts of money can be saved on the front end. Bond and writing paper, which includes photocopy and laser printing paper, accounted for more than 40 percent of the office paper used in the United States in 1988. Photocopying alone accounts for more than one-quarter of all office paper use. In 1990, U.S. photocopiers used 1.9 million tons of paper, almost 400 billion sheets, or 6000 sheets per office worker.⁴²

Double-sided copying could save almost 400,000 tons of paper a year. Increasing double-sided copying and decreasing the number of copies made by one-third could save 900,000 tons of paper annually.⁴³ Single space, rather than double space, printing can reduce the amount of paper by one-half. If duplex copying and single spacing strategies are used together, one-fourth the amount of paper is used.

Law firms should consider adopting the following source reduction guidelines:

(1) Use all paper on two sides, whenever possible, by:

- ♦ increasing two-sided copying;
- ♦ printing rough drafts and informal memos on the unused side of paper (draft paper);
- ♦ loading laser printer paper trays with draft paper; and
- ♦ reusing draft and computer paper for notes and scrap paper.

(2) Eliminate unnecessary copies, notes, and memos by:

- ♦ posting office announcements in central locations;
- ♦ sharing and circulating documents;

- ♦ setting up central filing systems;
- ♦ omitting cover sheets on fax transmissions;
- ♦ editing on the computer before printing;
- ♦ storing files on computer disks;
- ♦ using E-Mail and similar electronic non-paper documents;
- ♦ using small pieces of paper for short memos;
- ♦ targeting specific audiences for direct mail;
- ♦ avoiding duplication on mailing lists; and
- ♦ refolding and reusing file folders.

(3) Use typing and printing techniques to reduce paper by:

- ♦ single spacing documents, when possible;
- ♦ narrowing margins for drafts;
- ♦ changing margins to avoid pages with little text; and
- ♦ using a smaller typeface.

(4) Encourage the office manager to buy:

- ♦ laser printers that can make double-sided copies;
- ♦ a computer program that allows faxing from a computer to avoid print outs;
- ♦ fax machines that use plain paper;
- ♦ easier-to-recycle products such as white legal pads or white phone slips;
- ♦ narrow-lined note pads;
- ♦ electronic mail systems; and
- ♦ photocopy machines that are set for two-sided copying (existing machines can be adapted).

E. Recycling Office Wastepaper and Purchasing Recycled Office Paper

In order to obtain “objective” data concerning the legal community’s recycling efforts, a telephone poll was conducted in early 1991 of various law firms located within the Route 495 belt. While the results of the initial polling indicated that more firms than anticipated had some form of recycling, the recycling efforts, generally, were not comprehensive.

Accordingly, the survey indicated that a more comprehensive approach to recycling is needed within the legal community. Recycling efforts should include not only pickup of various office products, but also preferred purchasing of recycled office supplies.

To investigate paper purchase and disposal/recycling practices in law firms and to develop a list of common problems associated with recycling and purchasing programs, a comprehensive questionnaire was sent to approximately 306 law firms and a few government law offices within Boston and the greater Boston area. The responses were both interesting and informative.⁴⁴ In response to follow-up telephone polling,⁴⁵ approximately 200 firms provided valuable information.⁴⁶ Many firms were immediately interested in instituting a collection program, so general information was offered and referrals to recycling consultants and vendors were provided.⁴⁷

In general, almost all large firms polled did have in place some form of recycling program, while only 65% of medium size firms and 49% of small firms recycled at least one product. Large firms recycled the greatest number of products, including white paper, fax paper, corrugated paper, plastic and computer toner cartridges. Within all firms, the items most frequently recycled are xerox paper, white note paper and white bond. Not surprisingly, large firms have recycling bins available in more locations within the firm. The most common location is the photocopy room. Next in popularity is the computer room, followed by recycling bins located in individual attorney offices and at secretarial stations. Based on our sampling results, when bins were placed in fewer locations, the percentage of the firm which participated in recycling dropped dramatically.

Conversely, fewer than 25% of the surveyed firms purchased recycled products. The most common products purchased are xerox, computer, white bond and white notepaper. Some firms purchase recycled message pads, self-stick notes, laser cartridges and toner cartridges.⁴⁸ Law offices or buildings had contracts with several recycling vendors.⁴⁹

1. Common Concerns and Solutions

The survey revealed some common concerns which are easily and satisfactorily addressed. In general, law offices had the following concerns and questions:

1. Confusion about what constitutes recyclable paper (e.g., can envelopes be recycled or only envelopes without gum and windows?)
2. What will the selected recycling company accept?
3. Recycling is difficult because of lack of storage and infrequent pickup (a particular problem for small firms)

4. Do we have enough waste paper to meet minimum requirements?
5. Difficulty getting attorneys (especially partners) to participate in recycling
6. Attorneys would waste time dividing recyclables from non-recyclables (which time should be spent on billable hours)
7. Confidentiality issues with respect to recycled client or office materials
8. Are obsolete law books recyclable?
9. What are the cost considerations?
10. Is there access to a city-wide or a building-wide program?
11. Can glass bottles from the office be recycled?
12. Very difficult to get information on various vendors

The Task Force survey revealed the following responses to these concerns:

- ♦ Confidentiality issues with respect to recycled client or office material

If the law office currently shreds its confidential documents, attempt to locate a vendor who accepts shredded paper. This is one of the questions to be answered in the initial contact between the office and the vendor. Many recycling vendors offer Confidentiality and Non-Disclosure Agreements. If the office currently does not shred its sensitive documents, the recycling process is safer and more confidential than the landfill disposal process. As stated above, one of the processes involved in recycling is the de-inking of the paper. Once the paper is pulped and de-inked, it is not possible to read. On the other hand, sensitive documents disposed of in a landfill remain readable.

- ♦ Recycling takes time away from the employees' regular duties

With individual recycling receptacles located in each employee's office, employees will not spend additional time recycling. It takes the same amount of time to place a piece of paper in the recycling bin as it does to place it in the wastebasket. The additional time spent transporting these individual receptacles to a central storage location may be performed by volunteers and should be nominal. If the firm or building utilizes a custodial staff, the custodians may provide this service.

- ♦ Recycling is difficult because of the lack of storage space and the infrequency of pick-ups

This concern was most commonly expressed by smaller firms. The storage dilemma does not concern the individual receptacles, but rather the intermediate or central storage areas. One solution is to negotiate with the vendor for more frequent pick-ups. However, all vendors require a minimum amount for a pick-up. Areas such as copy rooms or empty offices may be used for storage between pickups. The building may also allow storage of recyclables where non-recyclable trash is currently stored. You may also consider organizing a cooperative with fellow tenants to generate more paper at a faster pace, or see if a large client will allow your firm to add its small quantities to its major program.

- ♦ Confusion as to what constitutes recyclable paper and the availability of vendors

Confusion over recyclable material is easily clarified by contacting vendors. The vendors will supply you with a list of material that is recyclable and that which is not. Vendors will tell you whether they accept materials such as staples, envelopes with windows and colored paper. The DEP Recycling Services Directory contains a list of vendors, and the Yellow Pages may list vendors under "Waste Paper" or "Recycling."

- ♦ Cost of the recycling program

Since some vendors will pay for recyclable paper, the recycling program may pay for itself and actually turn a profit. The major cost involved in a recycling program is usually the collection equipment (for example, the bins), and some vendors may be willing to supply the receptacles. If your firm does not wish to purchase equipment and the vendor does not provide it, you can provide employees with empty paper boxes and simply label them "For Recyclable Paper."

- ♦ Difficulty in getting attorneys to participate in the program

To combat this concern, convenience in the program is imperative. Receptacles placed next to existing wastebaskets is probably the most convenient method to ensure participation.

IV. DESIGNING A SUCCESSFUL RECYCLING PROGRAM

The essential elements of a successful law office recycling program are:

- ♦ genuine support of the law office leadership;
- ♦ ease of participation for all employees;
- ♦ deskside recovery containers for everyone;
- ♦ predetermined goals or targets for continual improvement;
- ♦ well coordinated education plans;
- ♦ a procurement plan to buy recycled office papers;
- ♦ department coordinators to answer questions;
- ♦ a cooperative landlord, if help is required; and
- ♦ reliable recycling companies for collection and the purchase of paper and paper products.

A. Getting Started

Before an in-house recycling program may be instituted, it is first necessary to investigate available recycling services and identify potential markets for your office paper. In order to expedite this process, law offices should consult DEP's



Recycling Services Directory and Markets Guide for Massachusetts. This Directory includes the grade of recyclable material that is accepted and the type of vendor activity. Although an effort has been made to include all such companies, a check of the local yellow pages under "recyclers," or "waste paper dealers," may assist you. The law office can also retain a consultant who specializes in setting up recycling and/or purchasing programs. The costs are reasonable for these expert services.⁵⁰

When choosing a waste paper vendor, price should be secondary to service. Prices in the paper market may fluctuate dramatically. The most common pricing structure used between vendors and their customers is a floating price structure that is linked to the paper industry market index. Fixed prices for the term of the contract are rare. A vendor who provides excellent service during both high and low times in the market will help to insure a smoothly operated recycling program.

1. Questions for Prospective Recycling Vendors

The following information should be incorporated into a simple, written contract with the selected vendor.

- ♦ Will the vendor help you organize and promote your program?

Many vendors will assist you in the development and promotion of your recycling program. Vendors will often supply start up materials and containers at no cost.

- ♦ What grades of paper are recyclable?

Many vendors may collect only particular grades of paper. It is best to determine at the outset what the vendor accepts and what your firm cares to recycle now and in the future, so your program can expand with the same hauler.

- ♦ What is the minimum amount of paper required for a pick-up?

Vendors may either provide "scheduled" or "on call" pick-ups. If the pick-up is to be "on call" most vendors require a threshold amount of paper before they can or will pick-up. Determining the minimum amount required will assist your firm in deciding on placement of collection and storage bins.

- ♦ How will the vendor collect the recyclable material?

The vendor may either collect the material from each central recycling container, or it may require that the pick-up occur at one main office storage area.

- ♦ What is the allowable level of contamination?

A contaminant is any material other than that specified in the recycling agreement.

- ♦ Will the vendor supply containers? If not, what is the purchase price of each container?

Vendors may be willing to supply central and/or office storage bins for recyclable material at no cost. If purchase is required, determine the cost to be incurred on a firm wide-basis.

- ♦ Does the vendor also offer recycled products for sale?

Many vendors also sell the material that they recycle. As noted previously, the purchase of recycled material ensures a market for the collection of office waste.

- ♦ Will the vendor pay for the paper? If yes, which pricing structure is used?

A "floating price" is linked to market fluctuations. A "fixed price" is for the term of the contract. Periodic review and adjustment of prices is appropriate.

- ♦ Does the vendor offer destruction services for confidential materials?

Some vendors will accept shredded paper. Other vendors will offer a Confidentiality or Non-Disclosure Agreement. If the vendor does not accept shredded paper, this should not exclude your firm from recycling all non-confidential paper.

B. Collection and Separation System

In order to insure that the law firm receives the highest possible price for its recycled paper, it is necessary to separate it from non-recyclable paper. The most obvious place to begin the separation process is at the source: the employees' desks. Each desk should have a small collection receptacle that is distinguishable from the regular waste basket. These receptacles need not be large or expensive and may simply consist of empty stationary or computer paper boxes. If the office desires to purchase small recycling baskets, they may be obtained through the recycling vendor or through the office products supplier.

As these individual office receptacles become full during the day, they must be transported to a central location. Common logistical choices for these intermediate containers are the copy rooms and computer rooms. Such areas are usually out of sight from the attorneys' offices so the possibility of a cluttered office is diminished. The intermediate containers usually serve 15-20 employees. The office may also find volunteers willing to make a periodic check of the individual offices.

C. Storage and Transportation

The intermediate containers should be emptied daily into a central storage area. It is in this area that the recyclable material is stored between pick-ups. The central locations are often located where the building's non-recyclable trash is kept. Depending on the size of the office and the availability of a custodial staff, either a volunteer employee or a janitor may empty the intermediate containers into the central storage area.

As for transportation of the recyclable material from the central storage area to the vendor, the law office and the vendor must decide when and where the pick-ups will occur on a regularly determined basis or if they will be "on call" pick-ups. If the pick-ups are "on call," it must be determined what is the minimum amount required for a pick-up.

It is understandable that many firms may be concerned with the amount of time that employees spend in administering the program. However, the time commitment should be nominal. In this age of environmental awareness, employees will most certainly volunteer to empty the containers.

D. Staff Participation

It is important to appoint one person in the office to be the recycling coordinator. The coordinator will act as the liaison between the office and the vendor to ensure that proper procedures are followed. The coordinator will also ensure that proper in-house procedures are followed.

The office recycling program should be preceded by a memorandum from the most senior management group describing the program and its benefits. This memorandum should include a list, provided by the vendor, of acceptable recyclable products. Once the program is in full swing, periodic updates should be distributed outlining the successes and failures of the program. Updates may include information on the positive effect your program has had on the environment (for example, the number of trees saved). Such positive feedback will ensure continued employee support and participation.

E. Procurement of Recycled Papers

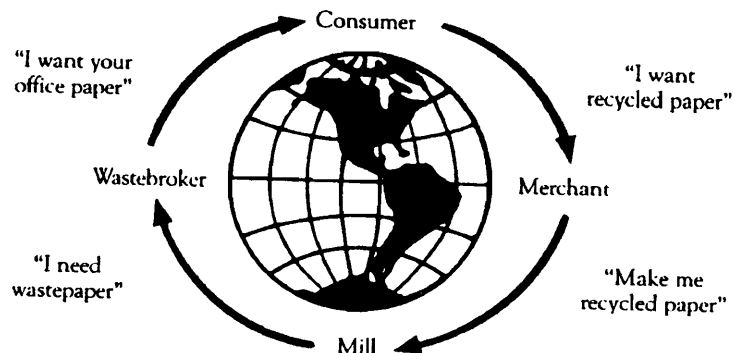
Office paper collection is not enough. Individuals, business and government also must take an active role in purchasing products that are made from recycled paper: stationery, envelopes, newsletters, publications, announcements, copy paper, fax paper, file folders and gussets, corrugated boxes and tissue products. Offices must close the recycling loop by committing to both the collection of wastepaper and the procurement of recycled paper products. The legal profession, with its large purchasing volumes, is in a powerful position to influence the marketplace. Managing partners need to establish a commitment to the purchase of recycled papers. The collective decisions of these individual consumers will determine the success or failure of law office efforts to increase recycling rates for printing and writing papers.

The purchasing agent for the law office must work closely with its paper supplier, broker or consultant to evaluate paper needs and available recyclable paper products. They might research Green Seal, Green Cross and Conservatree certifications as to recycled paper and post-consumer content. Many governments and businesses establish price preference policies which authorize the purchasing agent to buy recycled products over virgin products, so long as the recycled materials cost no more than 10% of its equivalent virgin product. For certain products such as copy paper, the price differential could be set at 20-25% to make recycled paper competitive as markets try to develop in the post-recession 90s. Recycled paper should contain at least 50 percent total recycled content with a minimum 10 percent post-consumer fiber and possibly higher amounts of post consumer, especially in letterhead grades of paper. Even special paper needs can be satisfied by the wide variety of available recycled paper products.⁵¹

To develop a successful procurement program the law office must:

- (1) make a commitment to buy recycled products;
- (2) eliminate purchasing restrictions (e.g., excessive brightness requirements);

Buying Recycled Paper Closes The Loop



- (3) realize that you may save money on some recycled papers, but be prepared to pay a small price preference for some items, like copy paper;
- (4) buy recycled paper for letterhead, copiers, laser printers and other office uses;
- (5) buy tissue products and paperboard products made with recycled fibers;
- (6) Test recycled products against "virgin" products to evaluate effectiveness;
- (7) publicize use of a recycled paperstock by using the "Printed on Recycled Paper" designation and/or the recycled logo;
- (8) form cooperative purchasing coalitions; and
- (9) stay educated on the development of definitions, procurement guidelines and labeling requirements.

V. MODEL PROGRAMS

The elements needed, and the procedures used, to ensure a successful recycling program remain constant for all size law offices, albeit on different scales. In order to facilitate an approach tailored to the size of your firm, this Report includes a brief synopsis of programs in place at 1) small law firms 2) medium size firms 3) a large firm 4) two buildings and 5) the MWRA.



A. Small Office

1. Wright & Moehrke

Wright & Moehrke is an environmental law firm with twelve employees located in the Back Bay area of Boston. Wright & Moehrke's program was spearheaded by its receptionist (who currently oversees the program) and approved by the senior partner. At the inception of the recycling program, the firm contacted a number of waste paper companies. After an appropriate vendor was chosen, a

collection and separation system was instituted. Although the firm did not purchase receptacles for individual work stations, empty cardboard boxes were used at each desk to collect waste paper. Intermediate collection receptacles were located in the copier room and the computer room.

The vendor required a one week notice for an "on-call" pick-up. The vendor required that waste paper be stored in sturdy, easy to handle containers; the firm used photocopy paper boxes. The vendor also requested a minimum of twenty boxes for a pick-up, which the firm generated about every three months. The money obtained for the recycled paper was used for office social events.

As is the case with firms of all sizes, confidentiality was an important factor. Although noting that many vendors will issue Statements of Confidentiality, the firm decided to tear up any sensitive documents before recycling.

The office has noted that the enthusiastic compliance of the staff has resulted in a virtually effortlessly-run and successful program. Small firms should be able to duplicate this program and have a positive impact upon the environment.

In contrast to successful recycling, the office has not been able to find satisfactory quality recycled paper at prices comparable to virgin stock, finding price quotes to be roughly 10-15 percent higher for recycled products.

2. McGregor & Shea

McGregor & Shea is an environmental law firm with fifteen employees located on Boston Common. Its "closed loop" recycling program collects paper and cans, and purchases recycled paper products: copy paper, file folders, note pads, crack and peel labels, bond paper, fax paper, computer paper, letterhead stationery, envelopes, and printing paper for announcements, newsletters, and profiles. Newspapers are recycled by employees bringing papers to their home community recycling centers (e.g., Arlington). Aluminum cans are donated. The collection program has been in place since the late 1970s. A former planner/research director expanded the program in the mid 1980s to require preferred purchasing of recycled products. Due to recessionary cost controls, fewer recycled products are currently purchased than were in 1990 because virgin materials are significantly less expensive.

Initially, white waste paper was picked up by Earthworm, Inc. (a non-profit organization funded by selling bulk waste paper on the paper mills market), approximately every four months. When the firm moved its offices, a new collection system was provided by the building owner and its waste collection vendor. BFI provided grey plastic "Recycle NOW" containers for all office staff members and word processing, accounting and copy machine areas. Employees still sort all paper. The building janitorial service collects the paper for storage in the building and pick up by the vendor. The firm also has waste reduction and reuse practices,

including two-sided copying, posting notices in central locations, sharing and circulating documents, and minimizing photocopying.

3. Taylor, Anderson & Travers

Taylor, Anderson & Travers is a Boston firm with seventeen lawyers. Earthworm is its recycling vendor. It has a comprehensive recycling program that is almost four years old. It buys recycled copy paper and white legal pads, but not recycled stationery because of price and quality differences. Paper and "styrofoam cups" and plates were replaced with washable mugs, plates and silverware. The system is virtually self-operating.

B. Medium Firm

1. Goulston & Storrs

Goulston & Storrs employs approximately two hundred and ninety people, of which approximately one hundred are attorneys. Its office-wide paper recycling program was started almost four years ago. The program involves recycling white paper, computer printout paper, and colored paper. Over the course of the first year of the program, more than ten tons of paper were recycled. The firm also recycles the toner containers for its printers with the help of its supplier, and recently began using recycled paper for its letterhead.

In April of 1990, several people at Goulston & Storrs expressed an interest in beginning a paper recycling program, inspired in part by Earth Day, as well as a newspaper article concerning a small firm that had successfully put in place a paper recycling program.⁵²

Several recycling companies were contacted, as well as a company that offered consulting services concerning paper recycling programs. A few of these recycling companies were interviewed and Capital Paper Recycling, Inc. was selected. Capital Paper was chosen for several reasons, including the fact that there was no charge to the firm for the services provided by the company; the owners of the company had a strong commitment to service; the company would supply the firm with as many large recycling barrels as needed at no cost; and the references that the company gave to the firm all resulted in positive reviews. A favorable newspaper article about the company printed in the Boston Globe also helped with the decision.

A notice was placed in the firm's newsletter briefly describing a proposed program, in part to learn how many people would be interested in participating in the program. Once this information was gathered, a memorandum describing the proposed program and the level of interest at the firm was forwarded to the firm's management committee. The management committee approved the program which was instituted on a voluntary, firm-wide basis. A memorandum was sent to the firm describing the program, as well as listing several contact people on each floor who were familiar with the details of how the

program was supposed to work and who could answer questions as to what could and could not be recycled. The memorandum also reminded people to be sensitive with regard to the disposal of documents that might contain confidential information.

Each person who chose to participate in the program was provided a waste basket to be used for white paper to be recycled. Most of these baskets were the same size as the regular waste baskets used by these people, and all of the baskets were a different color from those used for trash, so that the people who cleaned the firm's offices would easily be able to differentiate between the two types of baskets. In addition, large barrels for white paper were located in the main copy rooms on each floor.

All of the baskets are emptied once a week by the night crew. The large barrels are brought downstairs to the loading dock in the building by the firm's office services personnel the night before the firm's scheduled weekly pick-up. This arrangement was cleared with the firm's landlord.

The problems that were encountered with putting the program in place were essentially of two types: The first concerned confidentiality issues, while the second concerned logistics. People were reminded at the commencement of the program that any document, the disclosure of which could be harmful to the firm or its clients, should be shredded before being discarded. It was pointed out when the implementation of the recycling program was being considered that documents that are recycled are destroyed as part of the recycling process, while documents that are landfilled are not. Logistical issues primarily concerned space, and whether there was enough of it for the larger recycling barrels in the main copy rooms. Because people wanted to make the program work, space was found for these barrels. Less significant logistical issues were worked out as they arose.

The paper recycling program has run fairly smoothly since it was put in operation. Recently, the firm started using B. Ginsberg & Co. to provide services for the paper recycling program. This company pays the firm for the paper that is picked up, and is able to make pick ups in addition to the regularly scheduled once a week pick up if 24 hours advance notice is provided. In addition, the landlord uses this company for other tenants in the building.

The 10 tons of paper recycled in the first year has generally been achieved in each successive year. The participation rate in the program has conservatively been estimated at about 80%. In addition, since the program was initiated, the firm began recycling the toner cartridges for its printers, and last year began using recycled paper for its letterhead.

2. Hutchins, Wheeler & Dittmar

A waste paper recycling program was started at Hutchins, Wheeler & Dittmar when the firm moved to its present location in 1988. What is now an everyday fact-of-life required an intensive initial effort, primarily changing people's cultural perception of waste and finding common

ground and cooperation with building management. The recycling of waste paper was enhanced by recycling the firm's spent laser printer toner cartridges with a North Shore re-manufacturer. The cultural changes spawned by waste recycling created thoughts of purchasing recycled products.

The firm previously tested non-brand name laser printer toner with disastrous results. This experience made the firm quite apprehensive when approached with the idea to test re-manufactured toner cartridges. In 1991, with some trepidation, the firm agreed to test the re-manufactured cartridges. Its laser printers were then three years old (some older), and the problems that developed were initially blamed on the re-manufactured cartridges. The vendor agreed to visit the firm to review the problems first-hand and explained many intricacies of the printers, while bringing the print quality to an acceptable level.

Recycled paper has been a more difficult issue; however, recycled office supplies are becoming more prevalent. Some of the products made with recycled materials the firm currently uses are legal pads, yellow stickies, labels, mailers and envelopes, phone message pads, manila folders, pencils, trash can liners, and others. The firm does not, however, purchase recycled products simply for the sake of buying recycled. Its ability and willingness to purchase recycled lies with the vendor and manufacturer; quality must be comparable (preferably better); pricing must be competitive; and service must be provided (the vendor must be willing to back up the product).

C. Large Firm

1. Goodwin, Procter & Hoar

Goodwin, Procter & Hoar is a large Boston law firm with offices on nine floors. In 1989, a paralegal thought it would be a good idea if the firm started to recycle. Since this was the firm's first encounter with recycling, the management committee determined that a voluntary "pilot program" confined to two floors would be instituted.

The firm first contacted Earthworm, Inc., the region's only non-profit paper recycling vendor. The vendor was able to answer questions pertaining to the type and volume of paper that was required for pick-up, when pick-ups would occur, and what level of contaminants was acceptable, etc. A visit to another law firm with a recycling program was also helpful.⁵³

The separation and collection system consisted of large boxes placed on the two floors. Employees would place their recyclable paper in these boxes. Copy rooms and supply areas were chosen for placement of the boxes because of their accessibility and because a large amount of paper was already disposed of in those areas. Those areas were monitored by volunteers for neatness. A "recycling director" was appointed to oversee the program. Pick-ups were arranged from a central location on an "on call" basis.

After two months, the "pilot program" was reviewed and deemed a success. A firm-wide expansion was proposed and implemented. The approved proposal continued the program as it existed on all floors. A volunteer recycling committee was formed consisting of two volunteers from each floor. Implementation of the firm wide program resulted in a substantial increase in the volume of recyclable material. Larger collection receptacles and more frequent pick-ups were needed. The firm retained a new vendor, North Shore Recycled Fibers, that was able to accommodate these needs. In addition, the new vendor accepted colored paper, shredded paper, and books. The relaxed limitations resulted in an increase in paper volume. A scheduled weekly pick-up obviated the need for additional storage space.

Based largely on the success of Goodwin, Procter & Hoar's office paper recycling program, and pressure from the firm and other tenants, a building-wide paper recycling program was undertaken by the management of Exchange Place (Olympia & York Building Management) in January 1992. Waste basket-sized blue plastic recycling containers were provided to each employee (lawyers, paralegals, secretaries, etc.), which are kept at or under their desks, and used to recycle scrap office paper. Recycling bins are also placed in all of the copy rooms on each floor, in the central copying facilities, and by a number of printers. The paper is collected nightly by the cleaning staff at the time they empty the waste baskets, and then taken to a central location in the loading dock area.

The types of paper and restrictions on what could be recycled were further relaxed under the building-wide program. White copy paper and bond are recycled, as well as colored and mixed paper (but not newspapers, cardboard, etc.). The collected paper is collected by Laidlaw Waste Systems and taken to the Prins Recycling Facility in Charlestown, where the paper is sorted, labeled, and sold to paper merchants and mills. The paper is then processed to be used as a lesser grade of paper, such as for note pads, tissue, pizza boxes and chipboard.

Exchange Place (38 floors of offices) has generated approximately 30 to 35 tons of paper for recycling each month, including 8 to 9 tons monthly from Goodwin, Procter & Hoar. According to Laidlaw Waste Systems, the recycling program has saved the building between \$3,100 and \$3,600 per month in trash disposal fees, although we have not confirmed this number or a cost savings to the firm at this point. In terms of environmental benefits, a representative of Laidlaw has told the firm that each month the paper recycling program saves 170 trees, 70,000 gallons of water, 3,800 gallons of oil and 600 lbs. of air pollutants.

Now that Goodwin, Procter & Hoar has been recycling office paper for several years, the program has become institutionalized, and participation appears to be high. However, no studies have been done within the office to determine the percentage of recyclable paper that is actually recovered. Both white and yellow legal pads are available,

but efforts to purchase recycled office products have generally been unsuccessful due to the higher price for recycled goods.⁵⁴

D. Building Recycling Programs

In these stagnant economic times, competition among office-building landlords for the limited number of financially stable tenants is keen. The abundance of premium office space has been reflected in the dramatic downward spiral of office rents. To combat this situation, many landlords are vigorously implementing office-building cost control systems. These cost saving devices enable landlords to keep a positive cash flow. This, in turn, may allow landlords to keep tenants from being lured away by lower rents upon expiration of the lease.

An effective cost saving device is recycling. Trash hauling charges are already high, and they are sure to escalate as landfills continue to close in the Commonwealth. For every ton of paper that is recycled, the reduction in the hauling bill is \$100. Although the initial savings per ton may seem inconsequential, when measured against the tonnage of waste that is produced by office buildings per year the savings should be dramatic. These savings, when coupled with other energy saving programs, may allow office-building landlords to keep their rents low and keep their office space occupied.

The implementation of a building-wide recycling program requires a detailed survey of the tenants in the building. The survey should gauge interest levels and determine the amount of waste to be generated by each tenant in a typical month. The determination of waste to be produced will enable the landlord to determine the appropriate number of collection receptacles and on-site storage containers. This information will be useful in negotiations between the landlord and the recycling vendor. This assumes that the building will utilize privately contracted waste collection.

The procedures necessary for a building-wide recycling program are similar to those procedures identified in the model law firm programs. The collection and separation system must be uniform throughout the building to ensure a smooth transition of the waste from the collection point to the storage area. The initial survey of the tenants must determine what type of separation system is most convenient for them. Individual employee collection receptacles are usually most convenient for both the tenants and the landlord.

The removal of these individual receptacles to an intermediate area could be effectuated by the tenant's employees. Disruption of the employees' schedule should be minimal as the individual receptacles will be emptied only periodically and the intermediate storage area should be located in convenient locations.

Removal of the intermediate storage containers to the central storage area is usually the responsibility of the building's maintenance staff. This should not significantly increase the work levels of building maintenance staffs. The landlord must negotiate with the recycling vendor for pick-up from the central storage container. The central storage

container is often located by the building's loading dock. Frequency of the pick-up will be determined by the amount of material to be recycled that is generated.

An effective and ongoing promotional campaign is instrumental to the success of a building-wide recycling program. The landlord must convey to the tenants that the environmental benefits far outweigh the minimal time commitment that is required of them. Convenience is the key.

1. Burns & Levinson/125 Summer Street

Burns & Levinson is a medium-sized Boston law firm which resolved impediments to a firm recycling program by encouraging the implementation of a building-wide recycling program at 125 Summer Street. Proponents of a firm recycling program encountered two management concerns: minimizing lawyer and employee time and confidentiality. Programs that involved the sorting of colored paper from white paper, the removal of paper clips and staples, or the collection and transportation of paper to a central location were not well received on the basis that too much attorney time would be required. In addition, programs that involved collection of paper by third parties during work hours were discouraged for the reason that they might prove too disruptive. Moreover, it was difficult to convince firm management that the recycling program afforded more confidentiality than the normal disposal option. Therefore, a vendor was selected that could take shredded paper at no additional cost. Through the use of a building-wide recycling program, the only effort now required of Burns & Levinson employees is to separate their trash from the recyclable paper. As to confidentiality, the recycling vendor provided a guarantee of confidentiality and accepts "shredded" paper.

The building recycling program is administered by Sterling Packaging, Inc., a company affiliated with C & J Trucking Company, Inc. ("C & J"). C & J has been under contract to provide solid waste disposal services for the building since the building's opening. The implementation and operation of the program involved the following:

A cardboard bin is attached by a hook to the side of each Building employees's trash can. The capacity of each recycling bin is 200 sheets of paper. Free-standing cardboard bins, with 500 sheet capacities, are also placed alongside all copy machines and word processing printers within the Building. During the course of the day, employees simply deposit all waste paper into these bins. Paper clips and staples do not need to be removed before the paper is placed into the bins, nor do personnel need to sort colored paper from white paper. Shredded paper can be placed into the bins as well.

At the end of each work day, the custodial staff empties the cardboard bins into hampers separate from those used to collect the trash. The paper is then brought to the freight elevator area on each floor of the building where it is placed into a plastic collection barrel with a 200 pound capacity. These collections barrels are also placed in areas of high

office paper use, such as accounting and central copying. Once full, the custodial staff takes the collection barrels to the first floor of the building. C & J then transports the paper to its recycling facility.

The following is a list of materials that are not considered "recyclable" for purposes of the program:

- ♦ Coffee cups, plastic utensils, "styrofoam," paper plates, napkins, paper towels and tissues;
- ♦ adhesive stickers and labels (if an envelope has a mailing sticker or window, it must be torn out before the envelope can be placed in the recycling bin);
- ♦ newspaper;
- ♦ foil or plastic wrappers; and
- ♦ glossy paper, such as that used in magazines, brochures or catalogues.

Substantial economic savings and environmental benefits have resulted from the building-wide program. The disposal and dump costs for the month of August 1990, before the program was initiated, equaled \$98 per ton, or \$3,320. The recycling program has reduced the amount of trash generated by the building by approximately 25%. As C & J does not charge for transportation of the recyclable paper, after implementation of the program, a reduction in disposal costs of approximately 25% was realized. In March 1991, six months after the start of the program, those monthly costs had been reduced to \$2,748, a \$572 savings. By October 1993, the monthly costs were reduced to \$2,300. Since the initiation of the program, the Building has been generating approximately 5 tons of recyclable paper per month. In 1993, the recycling program at 125 Summer Street spared approximately 1075 trees and 315 cubic yards of landfill space, and saved for better uses 24,650 gallons of oil and 442,454 gallons of water.

2. One Beacon Street

The tenant recycling program at One Beacon Street was one of the first in downtown Boston. In the late 1980s, 1,000 tons per year of discarded paper cost the building \$100,000 a year in disposal fees. More than 44 percent of the wastepaper is now recycled, and the disposal costs were cut by \$35,000 per year. Its recovery rate is one of the highest in the country. The program is simple, comprehensive and effective for recycling many types of paper, cardboard boxes, and newspapers. One Beacon has also "closed the loop" by sending its mixed office paper to a paper mill in Maine, where it is made into bathroom towels and tissues which are sold back to the building.

E. Massachusetts Water Resources Authority

The MWRA has been committed to recycling paper, bottles, cans and laser printer cartridges for several years. The MWRA is able to partially subsidize the cost of soda from its vending machines by recycling soda cans. Large cartons similar to those found at supermarket redemption areas are located near the soda machines. The vendor redeems the cans and, in return, maintains a lower price for soda in the machines. The MWRA recycles laser-jet printer cartridges through its vendor, Towhill Office Supplies Company, located in Boston. Reconditioned cartridges are purchased at a savings of between sixty and seventy dollars per cartridge. Towhill disassembles the cartridges, cleans them and replaces worn parts, resulting in considerably better quality cartridges.

The MWRA's paper recycling program has been quite successful since its inception in 1991. Initially, the MWRA investigated several means of disposing of recyclable paper, including selling the paper to a recycling vendor. The greatest challenge was how to collect the paper. The MWRA was unable to find a vendor who would actually come into the headquarters and collect the paper from the various collection centers. The MWRA was fortunate to connect with Center House, a residential community for mentally impaired adults, which has a collection program for paper recycling. White paper is collected from locations throughout the MWRA's headquarters by the residents of Center House. A recycling vendor, Capital Paper Recycling Inc. ("CPR"), then buys the collected paper from Center House, and the profits are shared by its residents. In addition to the MWRA, Center House residents also collect paper for the City of Boston, the State Transportation Building, and the Registry of Motor Vehicles, among their public clients, and the Boston Red Sox, NESN Sports, Gnomon Copy and Mintz Levin, among their private clients.

The current collection schedule at the MWRA provides for Center House residents to pick up paper every other Monday and Wednesday. It takes them approximately 3 hours to collect and sort the paper. On average, each collection yields about 3,600 pounds of paper. The amount of recycled paper collected since the program began represents a savings of 520 trees, 214,000 gallons of water, 125 kwh of electricity and avoidance of 92 cubic feet of landfill space, according to CPR.

The MWRA has taken active steps to reduce paper usage. Staff are urged to make all reports, attachments and copied material double sided. Written testimony submitted to the MWRA's Board of Directors is encouraged to be double sided.

In addition to encouraging the recycling of paper and other products, the MWRA is committed to purchasing products made from recycled paper whenever possible. Most all of MWRA publications, including the Annual Report, are printed on recycled paper stock; in addition, letterhead, envelopes and business cards are all printed on recycled paper.

VI. CONCLUSION

The BBA has served a leadership role, through the work of its various Task Forces, in such diverse areas as parenting, court and sentencing reform, judicial compensation, drugs and the courts, the role of gender in the practice of law, and now recycling. This Report provides the tools for the BBA and other bar associations, law firms, the courts, and public agencies, as well as office buildings generally, to institute successful recycling programs immediately.

The legal profession presently stands as an influential player affecting the transition from paper disposal to paper collection and procurement. The solution to the wastepaper problem requires lawyers to consume less and reuse and recycle more. As paper recycling becomes a common business practice for the legal profession, other professions and businesses will follow, recycling markets will grow, and significant environmental benefits will be achieved. We urge lawyers to "close the loop" on recycling by committing to both the collection of recyclable wastepaper and the procurement of recycled paper products.

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VII. ACKNOWLEDGEMENTS

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The Task Force also wishes to thank all those individuals and organizations who provided valuable insight and support to make this Report possible. First, we are grateful to the Boston Bar Association leadership who commissioned this Report and supported our efforts in securing the cooperation of Boston law firms and in adopting recycling programs at BBA Headquarters and at their own firms: Past-BBA Presidents Rudolph F. Pierce, Goulston & Storrs; John P. Driscoll, Nutter McClennen & Fish; Margaret H. Marshall, Choate, Hall & Stewart; Sandra L. Lynch, Foley Hoag & Eliot; and BBA President, James J. Marcellino, McDermott, Will & Emery; Past-Chairs of the BBA Environmental Law Section Marilyn L. Hotch, formerly with MWRA, and Ralph A. Child, Palmer & Dodge; and Chair Lauren Stiller Rikleen, Bowditch & Dewey. Special thanks to Don Cordell, former Recycling Program Manager at Goodwin, Procter & Hoar, who participated actively as an associate member of the Task Force; Jeffrey Lissack, Massachusetts Department of Environmental Protection, who provided invaluable information on the procurement of recycled products; Joseph Uradnik, Esquire and Mary Ellen McPhee, who as law clerks with McGregor & Shea, researched and drafted sections of this Report; and Vanessa Ward, an intern with McGregor & Shea, who surveyed over 200 law firms by telephone. We also thank Sherifa Kaplan for donating her talents for the graphic designs in this Report; and Bonnie Sashin, BBA Communications Director for her tactical advice. Special thanks to Ms. Tina Davis who faithfully revised a half dozen versions of the draft report. Thanks also to the practitioners who called with suggestions throughout the project and who instituted law office recycling programs with only general guidance from the Task Force.

APPENDIX A: SOURCES OF INFORMATION

BOOKS

Recycled Papers: The Essential Guide. Thompson, Claudia G. Cambridge: The MIT Press, 1992.

Properties of Paper: An Introduction, Scott, William E. in collaboration with Stanley Trosset. Atlanta, GA: TAPPI Press, 1989

MANUALS AND REPORTS

Recycling Services Directory and Markets Guide for Massachusetts, Massachusetts Department of Environmental Protection, Division of Solid Waste Management (September 1993).

Buy Recycled Product Procurement and Information Source Guide, Massachusetts Department of Environmental Protection, Division of Solid Waste (October 1993).

Buy-Recycled Guide, National Recycling Coalition, Inc. Washington, D.C. (1993).

A Consumer Guide to Real Recycled Paper (1990) and *Recycled Paper Made Easy* (1992), Conservatree Paper Company, San Francisco, CA.

Office Paper Recycling Guide and Buy Recycled Paper Products, National Office Paper Recycling Project, Washington D.C. (1991).

Business Recycling Manual, INFORM, Inc., New York, N.Y. (1991).

Field Guide to Source Reduction and Recycling For Businesses, Massachusetts Audubon Society (1990).

The Official Recycled Products Guide, American Recycling Market, Inc., Ogdensburg, N.Y. (Winter Edition 1991/92).

Waste Not: Garbage as a Economic Resource for the Northeast, Conservation Law Foundation (1991).

Final Report on Recycled Paper Definitions, Procurement Standards, Measurement Protocol, Labeling Guidelines and Buy Recycled Initiatives, Recycling Advisory Council, National Recycling Coalition, Washington, DC, February 6, 1992.

ORGANIZATIONS

Recycled Paper News
6732 Huntsman Boulevard
Springfield, VA 22152
(703) 569-8670

Conservatree Paper Company
10 Lombard Street
Suite 250
San Francisco, CA 94111
(415) 433-1000

Corporate Conservation, Inc.
9 Park Street
Boston, MA 02108

Massachusetts Department of Environmental Protection
Recycling Division
One Winter Street
Boston, MA 02108
(617) 292-5960

Environmental Protection Agency
The EPA Procurement Guideline Hotline
(703) 941-4452

BACKNOTES

1. G. H. Horn, Recycling Markets Remain Flat in Northeast, Waste Dynamics of the Northeast, December 1992, at 1 and 25.
 2. Recycling At the Crossroads, Conservatree Information Services Fact Pack 6:1:2 (January/February 1993).
 3. Of the remaining 94%, 80% is landfilled, 10% is burned and 4% is exported. D. Assmann, *Environmentally Sound Paper Overview: The Essential Issues*, at 6 (CIS 1993) [hereinafter ESP Overview].
 4. Patriot Paper, Inc. Mark Baisch, its former President, was a Task Force member in 1991.
 5. CIS/NASPO Recycled Paper Survey, Conservatree Information Services Fact Pack 5:5:3 (September/October 1992).
 6. "The recycling symbol was designed in 1970, the year of the first Earth Day, as a public relations tool to promote the paperboard industry, which already had a record of using recycled wastepaper going back to early in the century. The Recycled Paperboard Division of the American Paper Institute asked the Container Corporation of America (CCA) to design an appropriate mark to be used on containerboard packaging. At CCA, Anthony Marcin, then manager of public relations, and William Lloyd, manager of design, organized a nationwide competition for graphic design students to develop the symbol. Several hundred entries were received, and the competition was judged at the Aspen Design Conference by several famous designers including Saul Bass, Herbert Bayer, and Eliot Noyes. The winning entry was a pen and ink drawing that was subsequently modified into a more graphic symbol by the design department at CCA under the direction of William Lloyd. Complete records of this material have since been lost, but Mr. Lloyd recalls that the winner was a student at the University of California named Gary Anderson.

CCA subsequently applied to the U.S. Patent Office to register the symbol as a service mark, while simultaneously beginning to license use of the symbol to industry groups such as the American Paper Institute and the Corrugated Box Manufacturers Association. Their extensive promotion led quickly to its widespread use on containerboard packaging. Meanwhile, the registration of the service mark was challenged, and rather than respond to the challenge, the corporation decided to drop its application, effectively allowing the symbol to enter the public domain. Thereafter, everyone was free to use it however they chose.
- In recent years, use of the symbol has become very widespread, and without a legal owner to define the standards under which the mark can be applied, the symbol has come to represent an idea more than a tangible reality." Claudia G. Thompson, *Recycled Paper: The Essential Guide*, at 75 (The MIT Press 1992) [hereinafter Recycled Paper].
7. 24 Env't Rep. 1166-67 (BNA October 22, 1993).
 8. Massachusetts Clean State Program: A Practical Guide, at 10 (September 1993).
 9. Environmental Sound paper News, Conservatree Information Services, Vol 5. at 3 (November/December 1992).
 10. The two colleagues were Ralph Earle III, then Assistant Secretary with the Executive Office of Environmental Affairs (now with Arthur D. Little, Inc.), and Nancy Kaplan, Esquire, of McGregor & Shea, Chair of the BBA's Solid Waste Committee. Mass Recycle is a statewide coalition of citizens, businesses, government and nonprofits located in Boston.
 11. Some original members included: Marilyn Hotch, Esquire, then Chair of the Environmental Law Section; Michael H. King, Esquire, then Director for Solid Waste Planning and Development at DEP; Brian Rohan, Esquire, EPA Region 1; and Mark Baisch, then President of Patriot Paper.
 12. In his January 28, 1991 appointment letter to the Task Force members, President Driscoll stated his "hope that the Task Force efforts will result in increased recycling in Boston by educating the legal and business communities with information on recycling opportunities, purchasing alternatives, and successful recycling programs."
 13. BBA News Release (March 4, 1991); BBA Update (February 1991); BBA Update (May 1991).
 14. 19 M.L.W. 1179 (March 11, 1991); 20 M.L.W. 137 (October 7, 1991); 20 M.L.W. 2077 (June 15, 1992).
 15. Susan Combs, Boston Lawyers Develop Recycling Manual for Local Offices, Recycling Times, August 27, 1991, at 11; Boston Lawyers Recycle, Waste Age, October 1991, at 10-11.

16. The Environmental Protection Division of the Massachusetts Attorney General's office has prepared a document entitled "Environmentally Friendly Filing." The document sets forth the state and federal courts which allow single spacing and/or double sided filings.
17. Recycled Paper, *supra* note 6, at 21-35.
18. *Id.* at 4 - 6.
19. ESP Overview, *supra* note 3, at 2.
20. Toward a System of Integrated Solid Waste Management: The Commonwealth Master Plan, Commonwealth of Massachusetts Department of Environmental Protection (Office of the Secretary of State June 1990) [hereinafter Master Plan].
21. Recycled Paper, *supra* note 6, at 5.
22. Master Plan, *supra* note 20, at 1.
23. P. Grogan, *Forum: Will the U.S. Recycling Approach Work?* at 44 (EPA Journal July/August 1992).
24. Master Plan, *supra* note 20, at ii, 2-3 and 31.
25. BBA On the Hill (October 1993).
26. Recycled Paper, *supra* note 6, at 7.
27. *Id.* at 64 - 67.
28. 42 U.S.C. 6901.
29. Subtitle D, Sec. 4001.
30. Pub. L. 98-616, 98 Stat. 3321 (1984).
31. Subtitle D, 40 CFR 257 and 258, 56 Fed. Reg. 50976 (October 9, 1991).
32. 56 Fed. Reg. 56289.
33. There is a national debate on the need for developing standards regulating environmental marketing claims. Without accurate labeling of recycled content, consumers can't know whether the paper is made from post-consumer paper or from mill scraps. There is a patchwork of different laws: EPA guidelines, Federal Trade Commission regulations, and five states have laws that govern what can be sold as recycled paper. Massachusetts Attorney General Scott Harshbarger has been involved in a multi-state Environmental Marketing Task Force that has issued recommendations for responsible advertising. In February 1993, Massachusetts reached a settlement with a company requiring it to discontinue certain "green" advertising claims to the effect that paper plates are "recyclable" and biodegradable. The company also paid a \$100,000 penalty. Agenda: Environment, at 3 (October 1993).
34. G.L. c. 21H, (a), as enacted by St. 1987, c. 584.
35. David E. Lurie, *An Overview of the Law of Recycling in Massachusetts*; at 11 (Boston Bar Journal July/August 1993).
36. 310 CMR 19.038(2)(d)(1).
37. 310 CMR 19.017.
38. In March 1990, Governor Dukakis signed a historic recycling accord which jump started the Commonwealth's recycling efforts by generating profitable new markets for newspaper recycling. Under The Memorandum of Understanding ("MOU") between Massachusetts and the Massachusetts Newspaper Publishers Association, 50 percent of the paperstock used by the print media will be recycled newspaper by 2000. This MOU encouraged the development of more mill de-inking facilities for collected newspapers and promoted a healthy market for recycled paper. This initiative could provide a model for recycling office paper.
39. Executive Order No. 279 (May 18, 1988).
40. 802 CMR 4.00.
41. Ordinances of 1990, Chapter 9, §§ 8 and 9 (August 13, 1990).
42. R. Graff and B. Fishbein, *Reducing Office Paper Waste: An INFORM Special Report*, at 4-5 (1991).
43. There are limitations and costs to increase duplexing: the lack of duplexing capability in smaller, personal or convenience copiers which account for 40 percent of all copy paper use; photocopiers are less reliable in duplex mode and take longer to make copies; and cost savings are offset by increased service costs and machine "downtime" costs. There is conflicting evidence that recycled paper may increase jamming and maintenance costs. *Id.* at 19-21.
44. Notable was the lack of participation in the survey, with only 50 law firms returning the questionnaire.
45. Approximately 30 firms were noncooperative, refusing to answer even basic questions.
46. Responses were received either by questionnaire or by telephone from 157 small firms, 77 medium firms, 46 large firms, and from one governmental agency.

47. John F. Shea and Nancy Kaplan responded to inquiries from about 30 law offices.
48. Without endorsing any particular company, the suppliers of recycling products to surveyed firms included the following:
- Allstate Legal
 - Boise Cascade
 - Crane
 - EcoNoLaser
 - Hammermill
 - Lindenmeyer
 - Recycled Paper Company
 - S & E Marketing
 - Seventh Generation
 - Staples
 - Towhill Office Supplies Company
 - Tuttle Law Printers
49. Without endorsing any particular company, these are the names of recycling companies with which the firms participating in the survey had contracts:
- BFI
 - B. Ginsberg, & Co.
 - Boston Can
 - Capital Paper Recycling
 - Center House
 - Corporate Conservation, Inc.
 - C&J Trucking Removal/Sterling
 - Earthworm
 - Laidlaw Waste Systems
 - North Shore Recycled Fibers
 - S & E Marketing
50. Corporate Conservation, Inc., Boston, MA and Conservatree Paper Company, San Francisco, CA. provide such consulting services.
51. For evaluating recycled paper choices and opportunities, see Recycled Paper Made Easy: The Product List from Conservatree Paper Company (1993), which lists the best recycled papers in coated, opaque and publishing, offset, text and cover, special, writing, copier/laser, stocktab, and envelopes and Recycled Papers, *supra* note 6, at 146-155. See also DEP "Recycling Services Directory and Market Guide for Massachusetts." The Recycling Services Directory and Marketing Guide is available through DEP at (617) 292-5960.
52. 18 M.L.W. 1513 (April 30, 1990).
53. Choate Hall & Stewart.
54. In addition to paper recycling, Goodwin, Procter & Hoar participates in a can recycling program. Receptacles are placed in the coffee rooms on each floor, near the soda machines, in all conference rooms, and in the Conference Center. Empty returnable aluminum, glass and plastic carbonated beverage containers are recycled. The firm currently recycles at least 400 cans per week. The boxes of cans are emptied once every two weeks by Boston Can, a non-profit organization that employs homeless individuals. The proceeds are used to provide income, services and training for Boston Can's homeless and formerly homeless employees.