



# Paperless *Express*

*A Paper Use Reduction Guide  
for Your Business*

**STOPWASTE.ORG**  
*Reducing the Waste Stream for Alameda County*



# A Paperless HERO

StopWaste helped the East Bay Regional Park District fund a paper waste prevention program that increased productivity and saved thousands of dollars at this public agency's administrative headquarters in Oakland, California. Using software that reduces paper use, the Park District is moving away from paper and toward digital forms and documents.

Forms are circulated electronically. Documents such as newsletters and letterhead are printed on demand (eliminating overprinting), and resources like park maps are available for download on the Internet. The Park District also significantly reduced its paper use and purchasing by setting its copier default to duplex.

## The Bottom Line

Return on investment of 220%

Annual savings of \$22,000

Prevention of 11 tons of paper waste a year

**The myth of the paperless office may be just that. But there are many ways you can reduce paper use that benefit you, your business bottom line, and the environment.** This guide provides tips and tools for office workers and managers in business, government, and other organizations. You will find steps to reduce paper at your desk, in the mail room, by using new technologies, and in many other ways. See how smarter paper-buying choices can reduce cost and waste.

You may already be steps ahead in reducing paper use and purchases in your office. This guide is designed to help you—whether you don't know where to begin or you are looking for ideas to further advance your paper reduction efforts. Take a look and see if there might be more you and your coworkers can do to make a difference.

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## **7 Steps to Action**

- 1 Getting Started** p 2
- 2 At the Computer, Printer, Fax, and Copier** p 4
- 3 In the Office Supply Closet** p 8
- 4 In the Mail Room** p 10
- 5 In the Storage/Filing Cabinet** p 12
- 6 Using Technology** p 14
- 7 Tracking Success** p 16



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**FAQs** (Frequently Asked Questions) p 18

**APPENDIX: Sample Forms and Worksheets** p 19

Office Paper Use Questionnaire p 20

Sample Internal Memo: Developing a Smart Paper Plan p 22

Sample: Less Paper Pledge p 23

Purchasing Assessment Worksheet p 24

Discards Assessment Worksheet p 25

Paper Use Reduction Worksheet p 26

**RESOURCES:**

StopWaste Partnership, StopWaste.Org and California Integrated Waste Management Board p 29

**Waste Prevention.** It's a simple concept: Waste prevention means not creating waste in the first place. If you create less waste, you consume fewer resources and don't have to spend as much money to recycle or dispose of your waste.

# 1 Getting Started

## Quick Tips:

- **Sell the program:** Documenting the costs and savings
- **Identify a champion:** Selecting a paper use reduction coordinator
- **Gather ideas:** Forming a committee or Green Team
- **Secure management support**

It's no secret. Gaining management support makes it a lot easier to implement new programs and initiatives. But how do you get managers in your organization to support waste prevention? Unfortunately, there is no magic formula or even a clear step-by-step process. Each business, public agency, school, or organization will be different, but securing management buy-in is the best way to establish organizational support for new changes and practices.

To be convinced to act, management will need information about the costs and benefits of paper use reduction.

## Sell the Program: Documenting the Costs and Savings

Information about the financial and environmental benefits of reducing paper use will help you “sell the program.” Economic benefits include the potential for savings through waste prevented and disposed, and better buying choices. Environmental benefits include reduction in greenhouse gas (GHG) emissions and savings in natural resources, energy, and water because fewer materials are used and transported.

### Evaluate your paper waste stream

A waste evaluation will help you identify the paper waste your organization generates and its path through your facility, from point of purchase to ultimate disposal.

The evaluation can be as simple as a visual survey of your trash, or it can be a more detailed process of sorting, weighing, and measuring the volume of all the materials in your waste stream. It can also be as easy as looking at paper purchasing records.

Walk through your facility and note how and where paper is generated:

- What type of work is done in each area?
- What activities produce paper waste?
- What type of waste is produced?
- What waste can be prevented, reused, or recycled?

The data you gather can be used to establish a baseline for comparison after the program is in place. If a waste evaluation is done at least once a year, for example, you can track program results and identify any changes in practices to guide future reduction, reuse, and recycling efforts. The more detailed the information, the more you will be able to do with it.

Be sure to consider the paper that is being shredded or recycled, and look for opportunities to reduce the amount of paper generated in the first place. Preventing waste is not only better for the environment than recycling, it saves money too.



## Calculate savings

One major reason that many organizations implement waste prevention strategies is to realize long-term savings of money, labor, and time. Discovering what your organization's paper purchasing and disposal habits are—combined with what you learned from evaluating your paper waste—allows you to target inefficient areas in your use of paper.

By completing the following forms, included in the Appendix, your organization can identify numerous waste prevention options available to you. The [Purchasing Assessment Worksheet](#) helps you list paper purchases and answer financial and paper use questions. The [Discards Assessment Worksheet](#) helps you figure out how paper in the trash and recycling could be reduced or reused.

## Identify a Champion: Selecting a Paper Use Reduction Coordinator

Select an organized, enthusiastic, and creative person to coordinate the paper use reduction activities. The coordinator should be someone who communicates well with coworkers and can dedicate time in the immediate future to establish an effective program. It need not be a full-time position or effort. The coordinator must also have the authority or ability to make the program happen.

## Gather Ideas: Forming a Committee or Green Team

The coordinator should form a committee with representatives from key departments—such as purchasing, receiving, marketing, administration, and maintenance—to discuss how to best implement paper use reduction at your workplace. Include fellow employees in the development of the program, including department heads and support staff. The broader the base of support and enthusiasm, the greater will be the chances of cooperation and success.

The Green Team can:

- Develop a plan.** Start small—tackle one thing at a time, but create a process that will allow you to expand your efforts in phases.
- Track and evaluate your efforts.** An important part of securing both management and organizational support is to keep track of and evaluate the results of your efforts.
- Think in “What if…” terms:**
  - What if this single-sided copy could be reused?
  - What if this weekly report could be sent electronically instead of printed for distribution to staff?
  - What if this company policy document could be accessed online so it wouldn’t have to be printed every time it changes, thus preventing the waste in the first place?
  - What if this catalog could be obtained on a compact disc or online instead of as a printed book?
- Keep non-team members involved.** Share your questions and the Green Team’s progress with the rest of the organization to generate more good ideas.

## Secure Management Support

Present your cost and benefit findings to senior management. Get management on board with your plan to rethink and reduce paper use in the office. Refer to the [Sample Internal Memo: Developing a Smart Paper Plan](#) in the Appendix for an example management “buy-in” memo.



### The Short Course:

The Natural Resources Defense Council (NRDC) invites you to steal its ideas and tools for developing a smart paper program for your business:

- Evaluate your current consumption** to see which paper uses to target. Use the [Office Paper Use Questionnaire](#) (in the Appendix) to assess current practices in your office and find out where there’s room to improve.
- Survey your organization’s** use of both printer/copier and professional print materials. Look at paper use, paper recycling, and paper purchasing practices.
- Pull together key staff members** from each department. This will help you make effective change and gain officewide support.
- Refer to NRDC’s [Paper Use Reduction Worksheet](#)** in the Appendix. Start with simple paper reduction strategies like many on this spreadsheet that don’t need any budget or approval from the top. Edit the spreadsheet and add your own strategies to create a customized plan for your office.

# 2 At the Computer, Printer, Fax and Copier

## Quick Tips:

- **Use email instead of paper or faxes whenever practical.** Email is a perfect means for internal memos as well as communications with clients and customers.
- **Make fewer copies.** Make only as many copies as you need. You can always make additional copies later if needed.
- **Reuse what you can.** Reuse manila envelopes for internal mailings; use outdated letterhead for in-house memos; and use paper that has printing on only one side in a designated “draft” copier or printer.
- **Print double-sided copies whenever possible.**

## At Your Computer

Here are a few suggestions for reducing paper use in your work at the computer:

- Don't print out emails unnecessarily.**
- Create and distribute** publications electronically.
- Review and edit draft documents on-screen** rather than on paper. Use the electronic Track Changes and Comment features rather than printing out hard copies for markups.
- If you need to print lengthy reports,** consider adjusting the paper settings to allow more text to fit on each page, or print two pages on each piece of paper, an easy adjustment in the print settings.
- Employ office intranet solutions** that allow open or password-protected access to documents, presentations, or databases through an office network or via the web.
- Proof documents on-screen** when possible and always use Print Preview and the Spelling and Grammar check before printing.
- Adjust the default settings** on word processing programs to use a slightly smaller font and slightly wider margins.



On Earth Day 2006, PG&E announced that its customers helped save 85 tons of paper in the previous year by paying their bills online. That's more than 1,000 trees.

## Did you know...

The introduction of email into organizations has resulted on average in a 40 percent increase in paper consumption.



40% increase in paper consumption

## PREVENT

**Use non-paper methods to communicate.** Use broadcast voicemail, email, or web postings rather than distributing paper memos and reports. Make training manuals and personnel policies available electronically and use shared computer drives.

**Assess emails you receive.** Selectively print only the email messages you need to save as hard copies. Reset your View options, font sizes, and text/background color to enhance on-screen readability so you don't feel you need to print out a message to read it better. Suggestion→View documents at 125 percent with 12-point type using blue text on white background.

Include a note in your standard email signature or contact information that encourages others not to unnecessarily print out your email message, such as:



**Please consider the environment before printing this email.**

**Eliminate unnecessary reports and reduce report size.** Ensure that reports are printed only for the people who really need them. If applicable, print only the pages required rather than the complete document. Better yet, provide reports electronically via email or on a compact disc. For example, use executive summaries when possible and provide the entire document only upon request.

**Don't use fax cover sheets** or divider sheets between print jobs. Use sticky-note information headers for faxes. Adjust printer settings to eliminate the blank sheets between print batches.

**Set up an electronic bill-paying system.** Send bills electronically and allow customers to pay online.

## REDUCE

**Reduce the use of paper forms and reformat forms into fewer pages.** Set up forms as double-sided and redesign them to fit on fewer pages. For example, set up individual or officewide templates to default to smaller margins. Better yet, switch to electronic forms like timesheets that employees can complete online. Fill out paperwork online for outside companies/agencies (for example, IRS, INS, Social Security, courts) that have electronic forms on the web. This method can also be faster to complete and generate quicker results.

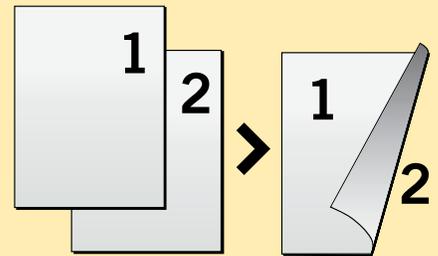
## REUSE

**Make fewer copies when you use paper methods to communicate.** Share copies and don't make more copies than you need. Route or circulate a single copy of a memo, document, magazine, journal, publication, periodical, or report, rather than distributing multiple individual copies.

# At the Copier—Duplex Printing

**Print duplex (both sides of paper).** Set up double-sided printing and copying as the default at individual workstations (or for the office as a whole); retrofit printers with a duplexer. Post signage that encourages double-siding. Buy or lease only copiers and printers that will make two-sided copies reliably. Use side-bound file folders (rather than top-bound) to accommodate double-sided documents. Institute maintenance practices that prolong the life of the duplex printer or copier. Implement a formal office policy to duplex all draft reports.

**Reuse single-sided printouts.** Save and collect 8.5- by 11-inch paper that's been printed on only one side, restack it neatly, designate a paper drawer on each copier with multiple trays (or as many copiers or printers as practical), and use it to print drafts. Alternatively, designate a "draft printer" and stock it with paper printed on one side. Similarly, stock a fax machine with paper already printed on one side. Make scratch pads from used paper.



## Print on both sides of the page

Duplex your printer so that it automatically prints documents on both sides of the page.

If your laser or inkjet printer does not have this feature, purchasing and installing an automatic duplexer typically costs less than \$300, and makes good sense in larger offices that use and/or mail a lot of paper.

As printers and copiers need to be replaced, purchase units that can print on both sides of the paper. Then set all computers, printers and copiers to default to double-sided printing.



## Duplex Copying and CO2e Reduction

If a company saved 1,000,000 sheets of paper (2,000 reams) in a year through duplex printing, the result would be an estimated reduction of 21.4 tons of annual carbon dioxide equivalent (tons CO2e).

### Assumptions and calculations:

The GHG emission factor for reducing paper is 4.28 tons CO2e avoided per ton of office paper saved.

**1,000,000 sheets of paper = 5.0 tons x 4.28 tons CO2e avoided = 21.4 tons**

Source: U.S. EPA's Waste Reduction Model (WARM)

## Did you know...

About 67 percent of all copiers are duplex capable, but the duplexing (double-sided copying) rate in the U.S. is only 15 percent?

## Avoid Paper Jams

To avoid paper jams, load the paper sheets squarely, and do not use paper that is wrinkled or has been exposed to moisture. Use high-quality copy paper that matches the functions of your copier or printer. Jamming can occur for numerous reasons, but according to many national studies by such companies as Canon U.S.A., HP, and Lexmark International, and the U.S. Government Printing Office, reusing paper or using recycled content paper is not one of the reasons.

The Oregon Department of Environmental Quality has used paper printed on only one side in a designated copier for printing drafts for nearly 10 years. The type of paper has varied over the years, but is now 100 percent post-consumer recycled content copy paper.

# Copy Centers and Professional Printers

When the author, graphic designer, and printer work together from the beginning, many benefits are possible: less wasted paper, less time and resources spent in revisions, and more environmental and economic benefits in producing a quality publication.



For publications that are professionally printed, consider the following to reduce paper use:

**Consider lighter-weight paper.** Less weight means less paper.

**Reduce trim size.** Shaving a  $\frac{1}{4}$  inch off your book, magazine, or catalog could save thousands of pounds of paper per year. Lower weight also reduces postage costs.

**Minimize paper waste when using “bleeds”.** A bleed is when text, color, or graphic elements extend to the edge of the printed page. To achieve this, printers print pages on oversized paper and cut off the unused margins to the final trim size, thus creating waste. Work with your designer and printer so your designs use the sheet size efficiently.

**Reduce print runs.** Try to specify quantities you’re sure you need.

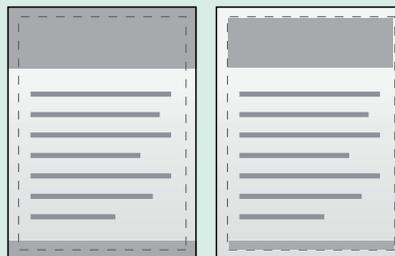
**Use standard paper sizes.** Design your printed pieces to take maximum advantage of common sheet sizes. For example, an 8.5- by 3.6-inch trifold brochure can be printed on standard 8.5- by 11-inch paper.

**Use print-on-demand technology.** Print manuals, catalogs, newsletters, and even books on an as-needed basis.

**Use bindings that are acceptable in the recycling process.** Staples and tape are acceptable; spiral plastic binders and cover sheets are not.

**Request paper with at least 30% post-consumer recycled content when printing.** You can also find a number of paper products with 100% post-consumer recycled content.

**Purchase recycled paper products that are chlorine free.** Unbleached papers are whitened with more benign chemicals.



Bleed

Non-bleed



Request paper that is 30% or greater post-consumer recycled content



# 3 In the Office Supply Closet

## Quick Tips:

- **Commit to buying high-recycled content products.** Purchase and request items made from post-consumer recycled materials. At a minimum, purchase 30% post-consumer recycled content copy paper. Look for processed chlorine-free (PCF) paper.
- **Conduct purchasing electronically.** Order supplies online; use CD-ROM catalogs.
- **Avoid overpackaging.** Select products with minimal packaging that includes high levels of recycled content.
- **Reuse file folders and dividers.** Set up a common area for reusable office supplies.
- **Eliminate the need to stockpile letterhead that can become outdated.** Create an electronic template for computer-printed stationery.

The following purchasing practices can help reduce both paper use and greenhouse gas emissions:

## Buy Recycled Paper

- Buy paper with the highest percentage of post-consumer recycled content available**, never settling for less than 30 percent for uncoated paper or 10 percent for coated stock.
- After maximizing post-consumer recycled content**, consider paper that contains other recovered materials, such as pre-consumer recycled content or agricultural residues like straw or crop fibers (including kenaf, hemp, flax, and bamboo).
- Insist on processed chlorine-free (PCF) paper.**
- If you do buy paper with virgin fiber content**, be sure the virgin fiber comes from sustainably managed forests. Look for paper products certified by the Forest Stewardship Council (FSC); see [www.fscus.org](http://www.fscus.org).
- Create a purchasing policy** that clearly outlines your goals and preferences for buying paper.
- On printed materials**, include a line about the environmental characteristics of the paper you use, such as the amount of post-consumer recycled content.
- If you have a choice, buy paper products wrapped in the least packaging.** Buy in bulk or in larger containers. Ask vendors to take back shipping containers and pallets for reuse.

## TIPS

If you purchase 40 cases of copy paper made from 100% post-consumer recycled content paper instead of paper made from virgin pulp, it saves:

- 24 trees
- 7,000 gallons of water
- 4,100 kilowatt-hours of electricity
- 60 pounds of air pollution

One metric ton of carbon dioxide equivalent is eliminated when you buy:

- 20 cases of 30% post-consumer recycled paper
- 6 cases of 100% post-consumer recycled paper

## DEFINITIONS

**Post-consumer material** is a finished material that would normally be disposed of as a solid waste—having reached its intended end use and completed its life cycle as a consumer item—and does not include manufacturing or converting wastes.

**Pre-consumer material** is a material or by-product generated after the manufacture of a product is completed but before the product reaches the end-use consumer.

For example, paper recovered from curbside collection is considered to be post-consumer, but paper scraps from a print shop are not. The print shop is not the “intended end user,” rather it is adding value to the paper that will eventually reach the end user.

## Purchasing Supplies for Your Business

- Establish purchasing guidelines** to encourage waste prevention (durable, concentrated, reusable, high quality).
- Centralize purchasing** to eliminate unnecessary purchases and ensure that waste prevention purchasing policies are followed.
- Track material usage to optimize ordering.** Suppliers can also help you with this tracking.
- Order merchandise with minimal packaging or layers of packaging.** Contact manufacturers directly and express purchase preferences. Remember to vote with your dollars by buying products with minimal packaging or with packaging containing recycled content.
- Request that deliveries** be shipped in durable reusable containers and pallets.
- Order supplies by phone or email.**
- Use optical scanners,** which give more details about inventory, allowing more precise ordering.

## Packaging Your Products for Customers

- Eliminate unneeded packaging** or layers of packaging.
- Use lightweight packaging** to conserve materials.
- Use reusable boxes and mailbags** for shipping to branch offices, shops, and warehouses.
- Ship products to your customers in the boxes that you receive from your suppliers.** Set up a place to store these reusable boxes. Ask customers to return boxes for reuse. You will save money by not having to buy as many new boxes.
- Encourage suppliers to use reusable totes or boxes,** rather than sending you disposable boxes that you have to break down and recycle.
- Print a message on products** to encourage consumers to recycle the packaging.
- Reuse packing materials** (e.g., foam peanuts, bubble-wrap, and cardboard boxes) or find someone who can.
- Use materials already on hand** for loose-fill packaging material, rather than buying new materials. One popular, low-cost option is shredded office paper.
- Set up a system** for returning cardboard boxes and foam peanuts to distributors for reuse.
- Purchase supplies and packaging that include recycled content** and are recyclable in most residential and commercial recycling programs. For information on what materials can be recycled in Alameda County, use the Recycling Wizard at [www.StopWaste.Org/recycle](http://www.StopWaste.Org/recycle).

StopWaste.Org offers free expert assistance and resources for environmentally preferable purchasing to businesses, public agencies, and institutions in Alameda County, California. Visit [www.StopWaste.Org/EPP](http://www.StopWaste.Org/EPP) to download a Resource Guide for Environmentally Preferable Products, Fact Sheets (including one about environmentally preferable paper office products), a model environmental purchasing policy, and other resources.

*The City of Berkeley's estimated annual purchase in FY 2007–2008 of 100 percent post-consumer paper was over 4,240 cases, equivalent to a reduction of 707 metric tons of carbon dioxide.*

## StopWaste Use Reusables Campaign

Reusable transport packaging offers environmental advantages while it adds to your bottom line. Reusable totes, bins, and pallets replace one-time (and limited-use) pallets and boxes for the efficient storage, handling, and distribution of products throughout the supply chain. Go to [www.usereusables.com](http://www.usereusables.com) for the basics about reusables, a cost comparison tool, and case studies to find out how reusable transport packaging can benefit your company.



## Did you know...

Every year, Californians produce 45 million tons of garbage, of which approximately one-third is packaging.

Source: California Integrated Waste Management Board, [www.ciwmb.ca.gov/BizWaste/FactSheets/Package.htm](http://www.ciwmb.ca.gov/BizWaste/FactSheets/Package.htm)

# 4 In the Mail Room

## Quick Tips:

- **Get off unwanted mailing lists!** Go to [www.stopjunkmail.org](http://www.stopjunkmail.org) for easy ways to reduce junk mail at home or at work in the Bay Area.
- **Use a stick-on label on the first page of a fax.** Avoid the unnecessary use of a full-page cover sheet.
- **Keep mailing lists current.** Avoid duplicate mailings and mailings to invalid addresses.



More tips for reducing paper use in communications typically done by mail.

## Distribution

- Use email and voicemail for interoffice messages.**
- Do not automatically duplicate originals.** Keep them centrally available (in a binder, for example) for people to make their own copies as needed.
- Consolidate pieces of mail** that regularly go to the same businesses or individuals.

## Communications

- Use recycled content items** when you want to post intra- and interoffice communications, such as corkboards and paper, and refillable pencils and pens.
- Use fax “stickies”** instead of separate full-page cover sheets, or simply write on or stamp the first page of the fax to convey transmission information or incorporate fax headers into documents.
- Invest in an online fax service** that allows you to send and receive faxes directly from your computer, or send documents by email instead of having to print them out for faxing.
- Don't prestuff packets for meetings or conferences.** Let participants take the handouts they think they will use.

## Junk Mail

Junk mail is a waste, and it costs businesses real money. It is estimated that 78 percent of third-class mail (the primary class for unsolicited mail) in the U.S. ends up being disposed. That represents not only a lot of wasted paper, but also a lot of wasted time handling all that paper. There are simple things you can do to substantially cut back the amount of junk mail you receive in your office and save money.

**It's good to recycle your junk mail. It's even better to stop getting it.**

Go to [www.stopjunkmail.org](http://www.stopjunkmail.org) to get your free Junk Mail Kit for residents or for businesses. The Bay Area Junk Mail Reduction Campaign is brought to you by the Bay Area Recycling Outreach Coalition (BayROC), a partnership of 110 Bay Area cities and counties.

Sign up for the EcoLogical Mail Coalition service at [www.ecologicalmail.org](http://www.ecologicalmail.org) to remove former employees at your company or agency from direct mailing lists. There is no charge to businesses for this service.

## Did you know...



1.5 Trees

If only one person stopped his or her junk mail, 1.5 trees could be saved every year.



150,000  
Trees Saved

If 100,000 people stopped their junk mail, we could save about 150,000 trees every year.

**PREVENT:**

**Update mailing lists.** Remove duplicate names and out-of-date entries to keep mailing lists current and avoid duplicate or wasted mailings. Send/Receive only one copy per address.

**Eliminate envelopes.** Design mailers that don't require envelopes by printing the address right on the document being sent, then folding and stapling or using a sticker to close up the document for mailing.

**REDUCE:**

**Reduce advertising mail/unwanted business mail.** First-class mail for ex-employees should be stamped "Return to Sender, No Longer at this Address" and returned to the post office (note: scratch out the bar code). Streamline the books and magazines your office subscribes to and share copies. Cut down on the number of periodical subscriptions. Survey employees' subscriptions, then work out a sharing system to eliminate multiple copies.

**Obtain catalogs and technical or regulatory text on CD-ROM or as an online service, rather than as books.** Purchase electronic subscriptions or a single department subscription rather than individual subscriptions for periodicals and newsletters. Route magazines and other subscriptions to the appropriate employees rather than ordering individual copies. Donate used magazines and trade journals to local libraries, schools, colleges, hospitals, nursing homes, and so on.

**REUSE:**

**Reuse envelopes.** Use resealable interoffice envelopes rather than plain white envelopes for all internal mailings. Place new mailing labels on previously used envelopes. Use two-way interoffice envelopes—if the To/From spaces are full, just attach a clean routing sheet.

**Save boxes and packing fill.** Reuse boxes and void-fill products for mailing items. Shredded paper can be used as packing material.

**Use the U.S. Postal Service's National Change of Address Program** (NCOALink), 800-238-3150 or [www.ncoa-processing.com](http://www.ncoa-processing.com), to update mailing addresses. The database is owned and updated by the U.S. Postal Service, and makes change-of-address information available to those who are sending out mail, to help catch undeliverable mail before it enters the mail stream.



# 5 In the Storage/Filing Cabinet

## Quick Tips:

- **Store documents in electronic archives.** No longer print hard copies for storage in filing cabinets. Establish a routine backup schedule for electronic files using a network drive, compact disc, disk, or tape.
- **Create a central storage area to file important documents.** Rather than filing multiple copies of an important document throughout the office, store a single copy centrally. Shared publications, phonebooks, and files can also be kept centrally rather than buying or printing out several copies for individual working files.
- **Share computer files on a shared network drive.**



## Business Math

**Excess paper use = Paper waste** > When we use excess paper, we routinely generate paper waste.

**Rethinking paper use = Less paper waste** > The less paper we use, the less potential for paper waste.

**Less waste = More profit** > Waste is an inefficient use of resources: energy, materials, and labor.



## The Numbers

In the U.S. alone, it is estimated that the number of paper documents generated is growing at a rate of at least 22 percent per year.

Of the pages handled each day in the average office, 90 percent are merely shuffled.

The average number of copies made of a document is 19.

In California, business generates 47 percent of the waste stream, and paper is the second-largest component.

Americans use 50 million tons of paper each year—that's 850 million trees.

**How many reams of paper does your business purchase annually?**

**How much could you save your business?**

## The Economic Case

When purchasing, handling, and disposal costs are included, it is estimated that businesses spend at least \$0.05 for each sheet of paper. Consider the following examples.

**An Alameda County study for StopWaste.Org** showed that cost savings in paper purchase and disposal are just the tip of the iceberg in paper use reduction savings:

Savings	Per ream of paper
Purchase savings	\$ 2.50
Disposal savings	\$ 0.13
Labor savings* (in processing and handling)	\$25.00

*That is a savings of \$27.63 for each ream of paper you avoid using, or 5.5 cents per sheet. And that doesn't even include storage and mailing costs.*

Source: StopWaste.Org, "Profiting from Waste Prevention: Measuring the Benefits," December 1999, [www.stopwaste.org/docs/11557412005pfpw.pdf](http://www.stopwaste.org/docs/11557412005pfpw.pdf)

\*Labor savings are generated from the avoidance of paper waste; e.g., reading reports from disk vs. hard copy, sending email vs. printing and distributing paper memos, or filling out forms on the web. Paper waste is not generated that needs to be printed, filed, faxed, or found.

**A Minnesota study** estimated that the costs of using paper (not including labor) in the office can run 13 to 31 times the cost of purchasing the paper in the first place. The costs of storage, copying, printing, postage, disposal, and even recycling add up.

Costs	Per Ream of Paper	Per Sheet of Paper
Purchase costs	\$5.00	\$0.01
Storage, handling and disposal costs	\$65.00 - \$155.00	\$0.13 - \$0.31

*The ream of paper that you paid \$5 for could actually cost up to \$155, or a minimum of 13 cents per sheet!*

Source: Minnesota Pollution Control Agency, statewide office paper reduction campaign, [www.reduce.org](http://www.reduce.org)

**Storage costs.** Paper is bulky to store, in boxes or in file cabinets. By using fewer sheets, storage space can be put to more productive use. For example, Owens Corning made all of its offices worldwide "paperless." Having had 14,000 file cabinets around the world, the company has already saved around \$30 million in lease costs.

**Mailing costs.** Fewer sheets mailed may mean reduced postage. Six sheets of paper weigh about 1 ounce and in 2009 cost \$0.44 to mail. A single-sided 42-page report would cost about \$1.90 to send by U.S. first class; that same report, copied onto both sides of the paper, uses only 21 sheets and would require only \$1.39 in postage.

**Researchers at Xerox found that about half of the documents printed in a typical office are thrown away within 24 hours.**

It is estimated that companies will spend about \$8 billion this year on paper alone; that doesn't include costs for ink and toner, or for running copiers, printers, and fax machines. In the typical office, for every dollar spent on printing documents, companies incur another \$6 in handling and distribution, according to Xerox.

Source: Hesseldahl, Arik, "The New Push to Get Rid of Paper," BusinessWeek, May 27, 2008, [www.businessweek.com/technology/content/may2008/tc20080526\\_370615.htm?link\\_position=link1](http://www.businessweek.com/technology/content/may2008/tc20080526_370615.htm?link_position=link1)



# 6 Using Technology

## Quick Tips:

- First, start with the basics.
- Then, consider using technology to gain efficiencies.

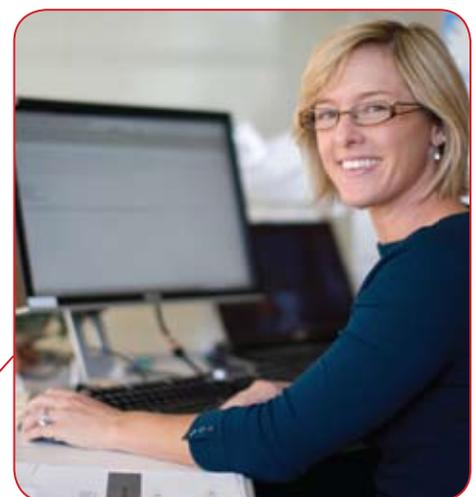
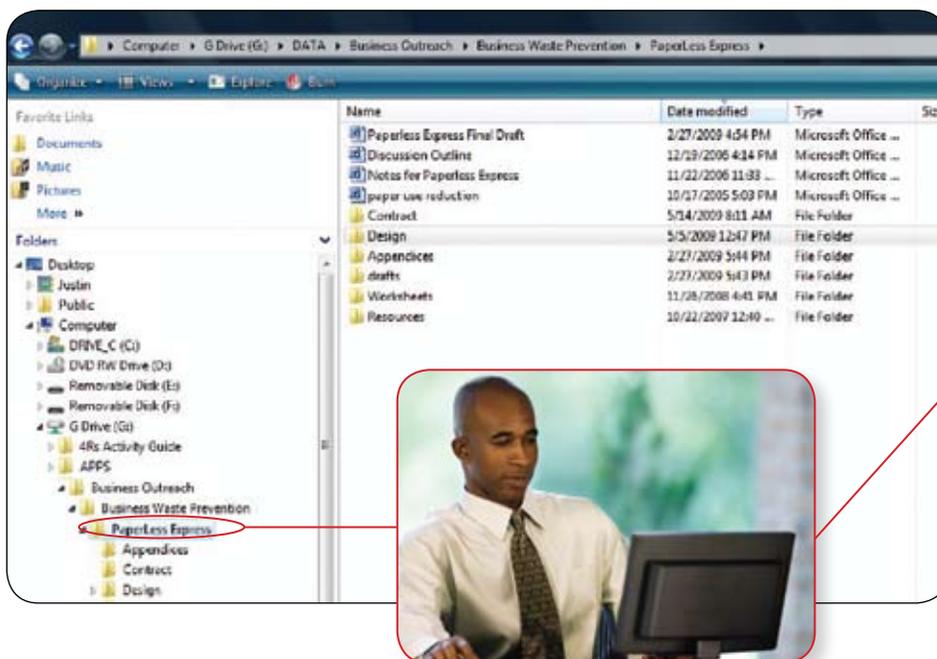
### First, start with the basics.

Before investing in new technology, reduce paper use with a few easy first steps:

- Use online sites or shared drives** as a knowledge management system, rather than hunting through emails and folders to find what you're looking for.
- Establish a standardized naming system** for your documents so they are easy to locate and identify.
- Use aliases** to provide quick access and cross-references between folders and files in a central location so they are easy to locate, identify, and open. Aliases are short names or icons that link to commonly used software, folders, files, and web pages to reduce typing and provide shortcuts.
- Compress files** before saving them so they take up less space and are easier to share electronically.
- Use password protection** for confidential documents if there is concern about access.
- Train staff** to become comfortable using existing technologies.
- Set company policies** that support the use of these practices. For example, establish that specific types of documents be shared and reviewed electronically.



**Scan your signature** and insert it as an image into letters and other documents. Convert these documents to a Portable Document Format (PDF) file before sharing to protect your signature.



Save paper when collaborating on projects by using shared drives or online workspaces.



## Then, consider using technology to gain efficiencies.

Decide which technologies make the most sense for your office. Start small and test a new technology or procedure for your specific need before converting officewide:

- High-performance scanner.** Create electronic copies of documents to share and save. Newer copy machines can often scan and email documents directly to a recipient.
- Desktop faxing.** Send and receive faxes electronically from your computer desktop instead of using hard copies at a standard fax machine.
- Tablet PC.** Take notes and sign documents in the field on a touch-sensitive screen and save as a PDF file. Go further and use handwriting recognition software to convert notes to word processing files.
- Software.** Perform many business operations—such as billing and paying bills, auditing, managing inventory, preparing taxes, scheduling appointments, and managing your calendar—without paper.
- Online resources.** Check out free or low-cost PDF filing software; documents and spreadsheets exchange; signing, filing, and fax services; online storage and sharing—and so on.

## Resources

### Electronic Fax Services:

[www.eFax.com](http://www.eFax.com)

[www.Fax.com](http://www.Fax.com)

[www.faxit.com](http://www.faxit.com)

[www.MyFax.com](http://www.MyFax.com)

[www.Packetel.com](http://www.Packetel.com)

[www.j2.com](http://www.j2.com)

### Software:

[www.tax-filing.org](http://www.tax-filing.org)

[www.freewarehome.com](http://www.freewarehome.com)  
(free downloadable software)

[www.microsoft.com](http://www.microsoft.com)  
(PC/Microsoft downloads and applications)

[www.apple.com/downloads](http://www.apple.com/downloads)  
(Mac/Apple downloads and applications)

### Online Resources:

[www.socialtext.com](http://www.socialtext.com)

<http://docs.google.com>  
(Google Documents)

## Not Ready for the “Paperless Office”?

Years of printing everything with the confidence that stored paper copies would be available for future retrieval can make the idea of no paper seem unreal—even downright scary. If you’re not quite ready for the paperless office, here are a few things you can still do to reduce paper and learn about other ways to store and retrieve documents:

- Use narrow- or college-ruled notebooks.**
- Use side-bound** rather than top-bound notebooks to facilitate writing on both sides.
- Save documents on compact discs** instead of printing hard copies.
- Use flash drives** to store documents and deliver them from one computer to another.
- Use central files for hard copies.**
- Post a single paper copy** of a memo on a central bulletin board.
- Use the same draft** of a report for corrections by several people.
- Accept final in-house documents** with corrections made by hand.

## TIP

USB flash drives are flash memory data storage devices integrated with a USB (Universal Serial Bus) connector. They are typically small, lightweight, removable, and rewritable. While it has become increasingly common for computers to ship without floppy disk drives, USB ports appear on almost every current mainstream personal computer and laptop.



# 7 Tracking Success

## Quick Tips:

- Track environmental and economic benefits
- Train employees
- Troubleshoot for ongoing improvements
- Celebrate successes

## Get Everyone On Board

- Have employees sign** a Less Paper Pledge (refer to sample in Appendix).
- Identify key staff** who can be available to answer questions and assist others if problems arise.
- Let everyone know how much paper your company will be saving each year** with your new systems and practices.
- Translate that number to environmental and financial benefits** (see Tools section that follows).
- Make sure effective training programs** are in place for both current and new staff.
- Solicit feedback** on how the systems and practices are working and ideas on how they can be improved.
- Check your progress annually.** Brag about accomplishments and evaluate setbacks.

Some large organizations have had success with an employee contest asking for suggestions for paper waste prevention. It can result in some surprising but great ideas (“I wish the accounting department would stop sending us that 100-page report every month that we never read...”).



## Tools for Tracking

- **U.S. EPA's Waste Reduction Model (WARM).**

Calculate emissions savings from waste prevention (source reduction) and savings from other alternatives to landfilling like recycling and composting: [www.epa.gov/climatechange/wycd/waste/calculators/Warm\\_home.html](http://www.epa.gov/climatechange/wycd/waste/calculators/Warm_home.html)

GHG Emissions from Baseline Waste Management (MTCO2E): -5						
Material		Tons Recycled	Tons Landfilled	Tons Combusted	Tons Composted	Total MTCO2E
Office Paper		5	5	0	N/A	-5

GHG Emissions from Alternative Waste Management Scenario (MTCO2E): -39						
Material	Tons Reduced	Tons Recycled	Tons Landfilled	Tons Combusted	Tons Composted	Total MTCO2E
Office Paper	3	6	1	0	N/A	-39

- **U.S. EPA's Recycled Content (ReCon) Tool.**

Calculate emission savings from using recycled content materials: [www.epa.gov/climatechange/wycd/waste/calculators/ReCon\\_home.html](http://www.epa.gov/climatechange/wycd/waste/calculators/ReCon_home.html)

- **Environmental Defense Fund's online Paper Calculator.**

Determine the environmental impact of paper use: [www.papercalculator.org](http://www.papercalculator.org)

## Smart Businesses Are Using Smart Paper Programs

Source: Natural Resources Defense Council, [www.nrdc.org/cities/living/paper/companies.asp](http://www.nrdc.org/cities/living/paper/companies.asp)

### Norm Thompson Outfitters

Catalog retailers mail out about 17 billion catalogs every year—that's nearly 60 per person in the United States—and almost none of them use post-consumer recycled content paper. That's why Norm Thompson's cutting-edge, industry-leading commitment is so valuable. Norm Thompson prints its catalogs on 10% post-consumer recycled paper, and has set a company goal of increasing that figure to an average of 30% post-consumer recycled paper in the short term. The company estimates that it has saved:

- 4,400 tons of wood per year
- 20 billion BTUs of energy
- 11.7 million gallons of water
- 990 tons of solid waste

By being as efficient as possible and using their website to show the full breadth of products offered, they can also limit the number of pages they print.

### Bank of America

By reducing the basis weight of its ATM receipts from 20 pounds to 15 pounds, Bank of America saved more than just paper; this simple move also gained the bank additional savings in transportation, storage, and handling costs—to the tune of \$500,000 a year.

Bank of America cut its paper consumption by 25 percent in two years by increasing the use of on-line forms and reports, email, double-sided copying, and lighter-weight paper.

Source: Minnesota Office of Environmental Assistance, Paper-less Toolkit, [www.reduce.org](http://www.reduce.org)

## Small Companies Do Make a BIG Difference

Source: Oregon Department of Environmental Quality, [www.deq.state.or.us/lq/sw/cwrc/success/material/officepaper.htm](http://www.deq.state.or.us/lq/sw/cwrc/success/material/officepaper.htm)

### Bend Community School

(Bend, Oregon)

Number of Employees: 3

#### What They Do to Save Paper:

Reduced paper use by encouraging double-sided copying, placing a bin next to the copy machine with "draft" paper (paper that is already used on one side, but can be reused), and turning off the automatic transmission report on the fax machine.

### Hood River County Chamber of Commerce

(Hood River, Oregon)

Number of Employees: 7

#### What They Do to Save Paper:

Began duplexing copies and using single-sided documents to print draft documents and for notepads. Since instituting these changes, paper consumption has been cut by nearly 40 percent.

# FAQs

## (Frequently Asked Questions)

**Q: How can I implement a successful paper use reduction program?**

Identify two or three key initiatives to implement. Educate your coworkers about the programs and benefits via training, signs, and posters. Employee resistance is suggested as a major factor in non-participation. Communicate progress made in paper reduction.

**Q: What should I cover in an employee training?**

Letting employees know why your company is committed to waste prevention is very important. Also, tell them in a concise, focused way the main aspects of your program. Consider a brief demonstration on how to print duplex on your office copier or how to feed letterhead into the printer if needed.

**Q: Whose responsibility should it be to lead this effort?**

Support from the top (management) is critical for success. One individual should facilitate and be the point of contact for the paper use reduction program, preferably someone who is enthusiastic and/or has contacts in key departments. Teamwork and participation of all staff are the keys to success.

**Q: How much time will this take? (I'm already too busy.)**

Adding any more tasks to your current roles and job function is burdensome. Find other like-minded folks in your office. Take tiny steps and split and delegate tasks. Persistence, balance, and continuity are keys to working within time constraints.

**Q: Is this going to cost a lot of money to implement?**

The payback on implementing paper use reduction is typically less than a year. It depends on your routine activities and the initiatives you select. You are likely to realize savings over time.

**Q: What if our customers don't like the changes?**

Improving the way you operate may be difficult. Keep in mind the big picture and the long-term vision. Your leadership may be a role model in your business community. Many customers prefer to support businesses that are environmentally minded.

Consolidated Cleaning Services, Inc., is changing to a new telephone and electronic fax system to reduce paper use and storage. The motivation for this Oakland-based building maintenance and janitorial company? The competitive edge and recognition that can be gained from becoming a certified Bay Area Green Business. See [www.greenbiz.ca.gov](http://www.greenbiz.ca.gov).

## **APPENDIX** Sample Forms and Worksheets

Office Paper Use Questionnaire p 20

Sample Internal Memo: Developing a Smart Paper Plan p 22

Sample: Less Paper Pledge p 23

Purchasing Assessment Worksheet p 24

Discards Assessment Worksheet p 25

Paper Use Reduction Worksheet p 26

Sample forms and worksheets are available  
for download at [www.stopwaste.org/Paperless](http://www.stopwaste.org/Paperless)



## **RESOURCES**

StopWaste Partnership, StopWaste.Org and  
California Integrated Waste Management Board p 29

DISCLAIMER: This guide was developed by StopWaste.Org, the Alameda County Waste Management Authority, and the Alameda County Source Reduction and Recycling Board, acting as one public agency. Its mission is to plan and implement the most environmentally sound waste management program for the residents, businesses, and institutions of Alameda County. The guide was produced for businesses, public agencies, and other organizations that are interested in reducing paper use and waste. It is provided as a public service by StopWaste.Org in an attempt to provide environmental benefits and reduce costs. The information in this guide is strictly for use on a voluntary basis. It is not a substitute for the exercise of sound judgment and not intended as a recommendation for a particular product or service. This guide was produced in summer 2009.

# Office Paper Use Questionnaire

Take stock of how your office is currently using paper to see where there's room for improvement.

Paper Reduction	Paper Recycling
<p>Using less paper is the quickest, most efficient way to cut back on your office's environmental burden. It's a money-saver too—the less waste you create, the less waste you have to manage. Answer the following questions to find simple ways to start cutting down on the amount of paper your office uses. In addition, the <a href="#">Paper Use Reduction Worksheet</a> can help you start implementing paper reduction strategies right away.</p>	<p>More than 75 percent of office waste in the United States is composed of paper, most of which can be reused or recycled. Separating paper for recycling can reduce your organization's waste disposal costs and reduce the environmental burdens associated with landfilling or incinerating used paper. The questions below are aimed at making sure your office is recycling as efficiently as possible.</p>
Questions	Questions
<p><b>PRINTING AND COPYING:</b> <b>For IT/Office Managers</b></p> <ul style="list-style-type: none"> <li>• How many printers and copiers are in your offices? Can that number be reduced (that is, can IT network central copiers and/or printers so employees can share access)?</li> <li>• How many print trays does each printer have? Can one tray (or one printer/copier) be designated for draft paper (paper already printed on one side)?</li> <li>• Can your printers and/or copiers print on both sides of a piece of paper? Can IT default the printers so they print double-sided?</li> <li>• Can you implement a purchasing policy for new printers and copiers that requires that they have the capability to default to double-sided printing?</li> </ul> <p><b>PAPER DISTRIBUTION AND STORAGE:</b> <b>For Office Managers/Mailroom</b></p> <ul style="list-style-type: none"> <li>• Does your organization use reusable mailers for interoffice communications? If not, can this system be adopted?</li> <li>• Are there multiple subscriptions to the same publication, and are they really needed?</li> <li>• How frequently are mailing lists de-duped and updated? Can the frequency be increased if needed?</li> <li>• Does your office store files electronically instead of on paper, where possible?</li> <li>• Does your office reuse shipping materials, such as packing material and containers? Can storage space be designated for reusable containers?</li> <li>• Does your office use disposable products in the kitchen—such as paper towels, plastic forks, polystyrene cups—or does it supply the real thing and make it easy for employees to clean up?</li> </ul>	<p><b>For Office/Facilities Managers</b></p> <ul style="list-style-type: none"> <li>• Does your organization contract with garbage haulers directly? If not, can you get information about your garbage hauler from your building management?</li> <li>• What materials do your current garbage haulers recycle, and how do they prefer those materials be prepared for collection?</li> <li>• If you contract directly with waste haulers and are not satisfied with their commitment to recycling, can your organization switch haulers if necessary?</li> <li>• Are there recycling containers in your office? Are they located in places where people are likely to need them, such as in copy, printing, and kitchen areas? If you don't have recycling containers in your office, can you obtain some and place them in these areas?</li> <li>• Is the custodial staff in the building informed about and able to handle any changes in your recycling system?</li> <li>• Can separate containers for paper recycling be placed in individual offices? Will custodial staff empty each container into a central recycling location, or does your organization need to consolidate your paper recycling yourselves?</li> <li>• Are trash and recycling containers clearly labeled?</li> <li>• Are recyclables being thrown away in trash containers? Can recycling containers be moved, signs improved, or communications increased to reduce the amount of recyclables being disposed as trash?</li> <li>• Are staff members clearly informed by memos, signs, or other communications about office recycling procedures and recycling container locations?</li> </ul>

## Paper Procurement

The production and use of paper take an enormous toll on the environment: damaging forests, polluting water, and stuffing landfills with unnecessary waste. Buying environmentally preferable paper—that is, paper with high post-consumer recycled content, paper certified by the Forest Stewardship Council, paper guaranteed to contain no fiber from endangered forests, and paper made without the use of toxic chemicals such as chlorine and mercury—can

help save forests, conserve water, reduce global warming pollution, encourage local recycling programs, and prevent useful materials from ending up in landfills and incinerators. It can also help steer the paper industry toward more sustainable practices. Answers to the following questions will help your company develop guidelines for purchasing better paper.

## Questions

### For Purchasing Department/Office Managers

- Which departments or individuals are responsible for paper purchases?
  - What kinds of paper do they purchase (specific products/grades)? What are the environmental specifications of these products—for example, what percentage post-consumer recycled content do they contain? What bleaching method do they use? Is the fiber certified, and by whom?
  - Is purchasing of paper products centralized? Is it done online or done from retail outlets, vendors, or printers? If purchasing is not centralized, is there a way to make sure any changes in purchasing policy are communicated to all paper purchasers in the organization?
  - Which suppliers do you use for each of your paper products?
  - What is the cost of each of the paper products you purchase?
- What are your current paper procurement policies or criteria you apply to paper purchases? Are environmental considerations weighed? Can you integrate environmental specifications into your paper procurement policy?
  - For each of the products currently purchased, can you work with your existing suppliers to substitute products that are environmentally superior (e.g., products with higher recycled content, and processed chlorine-free)? Can you substitute products without increasing cost? If costs will increase, can this be counterbalanced by paper reduction measures or be considered part of a public relations budget?
  - If existing suppliers are not able to provide environmentally preferable products, can you switch suppliers?
  - Do you know where the virgin fiber in your paper comes from (i.e., the chain-of-custody)?

## Sample Internal Memo

TO: Senior Management Team  
FROM:  
RE: Developing a Smart Paper Plan  
DATE:

---

I'm writing to let you know that we will soon launch an effort to devise and implement a companywide "Smart Paper Plan." As you might know, we use several tons of paper a year in the office. That's perfectly normal for an office our size; by one estimate, an average office employee creates approximately 350 pounds of wastepaper a year. But by carefully marshaling our resources, we should be able to reduce that amount significantly, helping the environment while also helping our own bottom line.

The core components of our Smart Paper Plan will be:

- ✓ Conserving paper, by relying on email distribution, using half-sheet fax cover pages, using both sides of a sheet of paper, and other means.
- ✓ Recycling paper, by redoubling our efforts to make sure we capture every scrap of recyclable paper.
- ✓ Purchasing ecologically superior paper, made with significant post-consumer recycled content and other important environmental attributes.

We'll begin the effort by creating a Smart Paper Team that includes representatives of the various departments. The team will lead a companywide diagnosis of our current paper practices and develop a draft Smart Paper Plan, complete with specific recommendations, for consideration by senior management. Together, we will review the plan; make any changes, additions, or deletions; and then begin implementation.

This is an important effort for the company, not just because it will save us money but because it can make an important contribution to the environment. The production of paper takes an enormous environmental toll, significantly reducing forests, emitting toxic pollution from production processes, and contributing a great quantity of paper products to landfills. By reducing our own contribution to these environmental problems, we can be better corporate citizens.

I believe our efforts will also offer important employee morale and public relations benefits as well. I hope that as we devise and implement the plan, we will be able to foster a top-to-bottom commitment to smart paper practices, and that we will all be proud of the contribution the plan makes to the environment. Of course, once we have developed and implemented a plan that we can be truly proud of, I expect we will be eager to brag a little to our customers about the plan.

In short, I hope our efforts to devise and implement a Smart Paper Plan will be helpful to us on many fronts. I hope you'll join in this effort enthusiastically. Thank you very much.

Have top management send a memo to demonstrate support for a paper use reduction plan.

# Less Paper Pledge

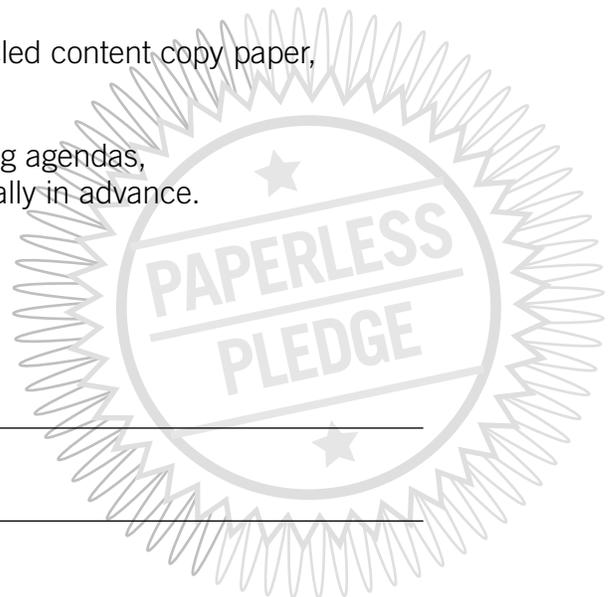
---

## I pledge to:

- Print and copy double-sided instead of single-sided when possible, or print multiple pages on one sheet.
- Print only what I need of a document by highlighting the information I want.
- Remove my name from junk mail lists.  
Visit [www.stopjunkmail.org](http://www.stopjunkmail.org) for guidance and downloadable PDF kit.
- Reformat documents to save paper using narrower margins and shrink-to-fit.
- Edit on screen, check spelling and formatting, and use print preview before printing to prevent having to print a second copy.
- Disable printing a test page whenever the printer is turned on or the fax machine is used.
- Share information electronically by posting online, saving to a shared drive, or attaching to emails (i.e. promoting events, circulating notices and distributing documents, memos and reports).
- Designate a box for scrap paper and use it for printing all drafts or unofficial documents.
- Use at least 30% post-consumer recycled content copy paper, tablets and file folders.
- Conduct paperless meetings by sending agendas, handouts and presentations electronically in advance.
- Recycle my office paper.

Signed: \_\_\_\_\_

Date: \_\_\_\_\_



# Purchasing Assessment Worksheet

Paper Products	Financial Questions		Paper Use Questions			
	How much do we spend on buying, storing, shipping, and recycling or disposing of this paper product?	How much could we save if we reduced the use of this paper product by 20 percent?	How could we stop using this paper product altogether?	How could we reduce our use of this paper product?	Does this paper product currently contain recycled content? If not, can it?	Is this paper product easily recyclable at our facility and by our customers? If not, how can we change it?

Use this worksheet to identify ways to reduce paper purchases.

This worksheet was adapted from a product of the Oregon Department of Environmental Quality. For more information, see the Commercial Waste Reduction Clearinghouse at [www.deq.state.or.us/lq/sw/cwrc](http://www.deq.state.or.us/lq/sw/cwrc).

# Discards Assessment Worksheet

Paper Products	Financial Questions		Paper Use Questions			
	How much do we spend on buying, storing, shipping, and recycling or disposing of this paper product?	How much could we save if we reduced the use of this paper product by 20 percent?	How could we stop using this paper product altogether?	How could we reduce our use of this paper product?	How could we or someone else reuse this paper product?	If this paper product were in the garbage, how could we recycle it?

Use this worksheet to identify ways to reduce and reuse paper that is thrown away or recycled.

This worksheet was adapted from a product of the Oregon Department of Environmental Quality. For more information, see the Commercial Waste Reduction Clearinghouse at [www.deq.state.or.us/ig/sw/cwrc](http://www.deq.state.or.us/ig/sw/cwrc).

# Paper Use Reduction Worksheet

Goal	Departments Necessary to Implement	Steps for Putting in Place
	<b>Who needs to lead change?</b> <b>Who needs to know of change?</b>	<b>Electronic notices, memos, orientations, training, etc.</b> <b>Include optimal timing, by date or timeframe (week 1, week 2, etc.).</b>
<b>Save on copier/printer paper, letterhead, brochures, catalogs, and annual reports costs</b>		
Use email, local area network, or voicemail instead of distributing hard-copy documents.		
Communicate with customers and clients by email as much as possible.		
Proof and preview documents on-screen before printing. Make sure your computer preferences are set to maximize the comfort level of on-screen viewing. Documents may be easier to read if you change the default display to 125 percent, and change color displays to show blue text on a white background.		
Use your word processing program's Edit and Comment features instead of printing.		
Rather than using fax cover sheets, incorporate fax headers into documents or use a removable-adhesive fax transmittal label. Or use a half-sheet of paper for a cover sheet, and then reuse the back. You may also be able to send and receive faxes directly from your computer without printing out a hard copy.		
Avoid copying by circulating or posting memos, documents, periodicals, and reports.		
If possible, leave less "white space" and use smaller fonts or compressed print messages to save paper (this is not recommended for lengthy documents due to increased eye strain).		
Make double-sided copies and set copier and printer defaults to double-sided. Ask for future documents to be double-sided if you receive a one-sided document.		
Don't overbuy items with preprinted information that may become outdated (e.g., stationery and envelopes). If a change occurs, purchase labels with the new address in order to use up the old stationery. Consider keeping only blank stationery paper and envelopes in stock, and configure computer programs to print out letterhead and address information as needed.		

*Continued >*

Use this worksheet to identify steps to implement paper use reduction strategies in your office.

# Paper Use Reduction Worksheet

Goal	Departments Necessary to Implement	Steps for Putting in Place
	<p>Who needs to lead change?</p> <p>Who needs to know of change?</p>	<p>Electronic notices, memos, orientations, training, etc.</p> <p>Include optimal timing, by date or timeframe (week 1, week 2, etc.).</p>
<b>Save on copier/printer paper, letterhead, brochures, catalogs, and annual reports costs</b>		
Save and collect 8½- by 11-inch paper that's been printed on one side, restack it neatly, designate a paper drawer on each printer (or as many printers as practical), and use it to print drafts. If drawer space is in short supply, designate an appropriate number of printers for "drafts only" and fill them with reusable paper.		
As printers and copiers need to be replaced, purchase units that can print on both sides of a sheet of paper. Then set all computers and copiers to default to double-sided printing.		
When working with printing companies to print brochures, annual reports, promotional materials, etc., print just what you need, plus a reasonable margin for safety. (Check to see how many boxes of the old brochure are still in storage before ordering!)		
Work with your paper vendor, printer, or mill to adjust design specifications that work better with standard paper sizes, reducing waste from cutting. Ask for lighter-weight paper for print jobs such as newsletters, brochures, and reports.		
Use network printers instead of desk-side printers to discourage unnecessary printing.		
Stack half-page cover sheets next to the fax machine.		
<b>Save on distribution, storage, and disposal costs</b>		
Use reusable mailers such as interoffice envelopes for all internal mailings.		
Reuse envelopes by crossing out or placing an adhesive label over the original address (completely cover old printed bar codes).		
Buy one department or area subscription rather than individual subscriptions. Donate old publications to your local library, nursing home, or book program.		
Keep mailing lists current to avoid duplication and remove those who no longer need your mailings.		

*Continued >*

# Paper Use Reduction Worksheet

Goal	Departments Necessary to Implement	Steps for Putting in Place
	<p><b>Who needs to lead change?</b>  <b>Who needs to know of change?</b></p>	<p><b>Electronic notices, memos, orientations, training, etc.</b>  <b>Include optimal timing, by date or timeframe (week 1, week 2, etc.).</b></p>
<b>Save on distribution, storage, and disposal costs</b>		
Make scratch pads or draft documents (if only one side has been used) from used paper or outdated documents (especially colored paper).		
Save documents electronically rather than in filing cabinets.		
Use reusable shipping materials and take back shipping containers when possible. Ask your vendors to do the same.		
If you have a choice, buy products wrapped in the least packaging. Buy in bulk or in larger containers.		
For bag lunches, bring reusable containers, bags, and utensils.		
Instead of paper towels and paper napkins, use reusable hand towels and napkins.		
Assign each workstation separate bins for trash, paper to be reused, and paper to recycle.		
Don't forget to inform the cleaning crew – make sure they don't throw away the wrong paper!		
Put recycling and reuse bins near printers and photocopiers and in central and convenient locations on each floor. Make sure they're all clearly labeled.		
Post signs in centralized areas to encourage reuse and recycling, and to educate staff on proper recycling/disposal methods for the office building.		
Be sure staff knows about the recycling and reuse policies. Send emails congratulating heavy reusers and recyclers, and include information about it in orientation sessions for new employees.		
Discourage the use of paper plates and paper napkins (as well as plastic utensils) by providing washable plates (and utensils), and encouraging employees to bring cloth napkins to the office.		
Reduce the amount of unwanted mail your business receives. (The National Waste Prevention Coalition provides a postcard to send to mailers to have your name removed from lists, <a href="http://www.metrokc.gov/dnrc/swd/nwpc/bizjunkmail8.htm">www.metrokc.gov/dnrc/swd/nwpc/bizjunkmail8.htm</a> . See more resources and tips on curbing business junk mail: <a href="http://your.kingcounty.gov/solidwaste/nwpc/bizjunkmail.htm#links">http://your.kingcounty.gov/solidwaste/nwpc/bizjunkmail.htm#links</a> .)		

## The StopWaste Partnership

This program offers free technical assistance, funding, and recognition for eligible businesses and public agencies (medium to large, 50 employees or more) in Alameda County, California. There are also a variety of free services available to smaller businesses.

Visit [www.StopWastePartnership.Org](http://www.StopWastePartnership.Org), call 1-877-STOPWASTE (786-7927), or send email to [Partnership@StopWaste.Org](mailto:Partnership@StopWaste.Org).



## StopWaste.Org

This organization provides many resources and services to help Alameda County businesses, governments, schools, and other agencies reduce waste and recycle.

### Directory for recycling and reuse:

- Use the Recycling Wizard at [www.StopWaste.Org/Recycle](http://www.StopWaste.Org/Recycle), StopWaste.Org's online recycling and reuse outlet and service provider database.

### Selected publications:

- *Special Events Best Practices Guide*. Find out ways to reduce waste and increase recycling at special events: [www.stopwaste.org/docs/specialevents-swp.pdf](http://www.stopwaste.org/docs/specialevents-swp.pdf)
- *RecyclExpress*. This guide shows you how to organize, implement, and manage a mixed-paper recycling program: [www.stopwaste.org/docs/rcexpress.pdf](http://www.stopwaste.org/docs/rcexpress.pdf)
- *A Guide to Green Maintenance & Operations*. Action items, purchasing strategies, and additional resources are provided for lighting, paint, flooring, furniture, energy-efficient appliances, water-efficient products, mechanical products, janitorial cleaning and supply products, and landscaping: [www.stopwaste.org/docs/gbmg-dec-20-07ltr.pdf](http://www.stopwaste.org/docs/gbmg-dec-20-07ltr.pdf)

### More StopWaste.Org programs:

- See "Buying Recycled/Green Products" at [www.stopwaste.org/epp](http://www.stopwaste.org/epp).
- The [irecycle@school](mailto:irecycle@school) program offers free services and resources for teachers, [www.stopwaste.org/home/index.asp?page=5](http://www.stopwaste.org/home/index.asp?page=5).
- *The Bay Friendly Landscape Guidelines* offer product ideas and sustainable practices for the landscaping professional, [www.BayFriendly.org](http://www.BayFriendly.org).
- For "green building" and construction-related products and information, see [www.BuildGreenNow.org](http://www.BuildGreenNow.org).

### Free Online Resources



## California Integrated Waste Management Board (CIWMB)

Paper is the second-largest component of California's commercial waste stream, accounting for about 26.5 percent of all commercial materials disposed. The CIWMB offers tips, promotional materials, and other resources for office paper reduction programs. See [www.ciwmb.ca.gov/BizWaste/OfficePaper/](http://www.ciwmb.ca.gov/BizWaste/OfficePaper/).





**If you can do only 1 thing...  
double-side copy.**



**If you can do 2 things...  
don't print every email or document.**



**If you can go for 3...  
stop junk mail.**

#### **Acknowledgments**

The following organizations provided information and assistance in preparing the Paperless Express guide. Check out their resources for more tips and tools to reduce paper use. King County, Washington, Solid Waste Division, Waste Prevention, [www.metrokc.gov/dnrp/swd/waste-prevention](http://www.metrokc.gov/dnrp/swd/waste-prevention). Oregon Department of Environmental Quality, Commercial Waste Reduction Clearinghouse, Waste Reduction Strategies, [www.deq.state.or.us/lq/sw/cwrc/strategies](http://www.deq.state.or.us/lq/sw/cwrc/strategies).

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**STOPWASTE.ORG**  
*Reducing the Waste Stream for Alameda County*

1537 Webster Street  
Oakland, CA 94612