

US EPA ARCHIVE DOCUMENT





# A GUIDE TO WASTE REDUCTION AT SHOPPING CENTERS







# CONTENTS

About This Guide .....	1
Who Can Benefit From This Guide? .....	1
What Can I Learn From This Guide? .....	1
Introduction .....	3
Section 1: Establishing a Successful Recycling Program .....	4
Step #1: Obtain management support, determine legal requirements, and identify other incentives or disincentives .....	4
Step #2: Identify a recycling coordinator .....	5
Step #3: Form a "green team" .....	6
Step #4: Assess your waste stream .....	7
Step #5: Identify materials to be collected .....	7
Step #6: Select a recycling service provider .....	8
Step #7: Determine collection program logistics .....	9
Step #8: Implement your recycling and management program .....	11
Step #9: Reap the public relations benefits .....	13
Step #10: Monitor, evaluate, and refine the program .....	15
Recycling Materials from Shopping Center Construction and Renovation Projects .....	16
Section 2: Preventing Waste in the First Place .....	17
Multiple Approaches .....	17
Transport Packaging .....	18
Taking Stock: Reviewing Inventories and Point-of-Sale .....	18
Reuse, Reuse, Reuse... ..	19
WasteWise: Preventing Waste, Recycling, and Buying Recycled .....	20
Section 3: Resource Management:	
Finding Resource Efficiency in Solid Waste Contracts .....	21
The Benefits of Resource Management .....	22
Are You Ready for Resource Management? .....	22
Section 4: Closing the Loop .....	23



<b>Section 5: Case Studies</b> .....	<b>24</b>
<b>Mall of America:</b> Bloomington, Minnesota .....	24
<b>Westfield Shoppingtown Mission Valley:</b> San Diego, California .....	26
<b>VF Outlet Shopping Village:</b> Reading, Pennsylvania .....	29
<b>IKEA, Schaumburg:</b> Schaumburg, Illinois .....	31
<b>Resources</b> .....	<b>33</b>
General .....	33
Retail Recycling And Waste Reduction .....	34
Material Exchange .....	35
Corrugated Cardboard .....	35
Paper .....	35
Glass .....	35
Plastic .....	36
Metal .....	36
Wood .....	36
Fluorescent Lamps .....	36
Toner Cartridges .....	37
Electronics .....	37
Construction And Demolition Debris .....	37
Community Outreach And Take-Back Programs .....	38
<b>Appendix A:</b> Materials Commonly Included in Recycling and Waste Prevention Programs at Malls and Shopping Centers .....	<b>39</b>
<b>Appendix B:</b> Products Available with Recycled-Content .....	<b>44</b>
<b>Appendix C:</b> EPA Programs Relevant to the Retail Industry .....	<b>46</b>

*The mention of any company, product, or process in this publication does not constitute or imply endorsement by the U.S. Environmental Protection Agency.*



# ABOUT THIS GUIDE

The U.S. Environmental Protection Agency (EPA), in collaboration with the International Council of Shopping Centers (ICSC), created this guide to help shopping centers of all types and sizes assess their waste management practices and identify opportunities to reduce waste disposal, increase reuse and recycling, save money, and contribute to their local communities. This guide also serves as a resource to local and state recycling coordinators to help them work with the shopping centers in their jurisdictions to design and implement waste prevention and recycling programs.



## WHO CAN BENEFIT FROM THIS GUIDE?

This guide is intended primarily as a tool for commercial property owners, property managers, and other shopping center employees who might be involved with planning and implementing recycling and waste prevention programs at malls and shopping centers. Because waste management services at most shopping centers are controlled by property management (rather than by retail tenants), management companies will likely play a leadership role in any recycling efforts. Waste prevention on a large scale, however, is more of a retail-level activity, and this guide provides several detailed examples from “big box” retailers.

Recycling and pollution prevention officials from states, municipalities, and nonprofit organizations also can use this guide as a tool for working with shopping centers and retailers.

Waste management companies and recycling service providers can use the guide to help shopping centers

and retail clients achieve their waste reduction objectives.

## WHAT CAN I LEARN FROM THIS GUIDE?

This guide does not attempt to present a “one size fits all” process for developing a recycling and waste prevention program. As the case studies at the back of the guide illustrate, each mall and shopping center encounters different challenges and circumstances in setting up and managing a successful program.

What this guide does present are general concepts and factors to consider in planning and launching a program. Property managers and recycling coordinators can use the “how to” information in this guide to determine the appropriate scope and design of their own recycling program, based on the conditions that exist in their facility and on other factors, such as the markets that exist for recyclables in their area. Retailers can consider the waste prevention examples when assessing their own waste generation practices, but they will find

their own opportunities and hurdles in reducing those waste streams.

**Section 1** presents concrete strategies that malls and shopping centers can use to develop a well-planned, cost-effective recycling program. For facilities that are not currently recycling, the guide describes the key steps in planning, launching, and managing a successful program, starting from scratch. For facilities that are already recycling on a limited basis, the information in this section can be used to improve or expand on existing efforts—for example, by adding new materials to an ongoing collection program, or by increasing program efficiency. This guide features practical, cost-effective steps that can be implemented over time as resources allow.

**Section 2** discusses waste prevention—also known as source reduction and reuse—and how shopping center tenants and “big box” retailers can help reduce the solid waste stream by creating less waste in the first place.



**Section 3** summarizes an innovative waste contracting strategy called Resource Management (RM) that helps save money, provides better service, and improves resource efficiencies.

**Section 4** talks about “closing the loop”—purchasing recycled-content products to ensure the health of recycling in general.

Interspersed throughout the guide are tips and lessons learned from malls, shopping centers, and retailers that are leaders in the areas of recycling and waste prevention. In addition, **Section 5: Case Studies** at the back of the guide provide detailed information about several of the most successful shopping center recycling programs.

Finally, the **Resources Section** will point you toward dozens of more detailed, useful resources on everything from conducting waste assessments to writing contracts with recycling service providers. Additional programs that can help you get started, improve your program, or gain recognition for your efforts also are highlighted.

**Appendix A** lists the commodities found most frequently in shopping center waste streams, and describes how they are recycled in the current marketplace. **Appendix B** lists typical recycled-content products used in retail stores and operations. **Appendix C** is a list of other EPA programs relevant to the retail industry.



# INTRODUCTION



Shopping centers and other retail outlets have become mainstays in American culture. Each month, more than 200 million adults visit the 46,000 covered malls, outdoor plazas, and other shopping venues in the United States to spend approximately \$300 million on goods, services, food, and other items. More than 10 million employees help make these purchases possible.

While all these people in shopping centers contribute to our nation's economy, they also are generating a large amount of trash. Each American generates about 4.5 pounds of trash per day, some portion of which can be found in a shopping center's waste streams. From corrugated cardboard shipping containers to leftovers in the food court, solid waste is an issue for all retail facilities. And since solid waste disposal costs in the United States have climbed significantly over the past decade, how a shopping center manages its wastes can directly affect the facility's bottom line.

The good news is that many shopping center managers have realized the benefits of implementing various types of waste reduction programs in their facilities. By working with sup-

pliers, hauling contractors, maintenance staff, and customers, shopping centers and other retail outlets have managed to cut costs through waste prevention and recycling, while demonstrating their environmental stewardship to the community.

Many shopping centers in the United States already recycle on a limited basis—focusing, for example, on a single material, such as cardboard. Others may have considered recycling but decided against it, concerned about potential expense or the difficulty of implementing something new. While the economics of recycling do vary from region to region, the truth is that, in many areas, recycling can be cost-effective.

Beyond recycling, retailers have also cut costs through waste prevention by identifying and eliminating items such as excess packaging at their source, before they become waste. Reusing items such as shipping pallets or hangers also has great potential. And for shopping centers that decide to involve the public in their reuse and recycling efforts through public education and events, the result can be a positive image and an increase in shoppers.

As more shopping centers are learning, a well-planned recycling program can produce savings:

- Westfield Shoppingtown Mission Valley, a 1.5-million-square-foot outdoor shopping center in San Diego, California, saw its annual waste disposal costs drop by more than 40 percent between 1994 and 2002.
- Plaza Camino Real Shopping Center, once the largest trash producer in Carlsbad, California, shaved more than \$67,000 from its waste disposal costs in a single year.
- VF Outlet Shopping Village, in Reading, Pennsylvania, managed to decrease its annual waste disposal costs by 67 percent between 1995 and 2002.