

Solid Waste Reduction Guide for Venues and Special Events

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STATE OF CALIFORNIA

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Introduction

This is a general guide to reducing the amount of solid waste produced and sent to landfills by venue facilities such as stadiums, convention centers, amusement parks, airports, race tracks, golf courses, zoos, and museums, or by large special events such as concerts, food festivals, fun runs, fairs, or sports tournaments.

This guide is primarily designed for persons who:

- Are responsible for waste management at a large venue site.
- Promote or manage special events.
- Provide supplies, catering services, concessions, product vending, consulting, or other material and service support to the venues/events industry.
- Government and nonprofit organization officials and citizens who want to help implement waste reduction at local venues and events in their community.

This guide can help you:

- Understand the challenges, choices, decision criteria, and methods used in reducing solid waste disposal.
- Plan for better materials purchasing and waste management at your facility or event.
- Identify and measure the wastes now generated by your operations.
- Select effective waste reduction and recycling programs.
- Estimate program costs and identify sources of financing.
- Purchase program equipment and find other resources.
- Train staff and educate patrons on how to participate in waste reduction programs.
- Operate successful programs.
- Measure and report your success to management, host city or county, and the public.

The guide is divided into easy-to-follow sections. We suggest that you follow the planning steps in order. Appendix sections include additional information, sample documents, useful references and Internet addresses, and a glossary of technical terms. Please take a moment to complete and return the Peer Networking form (Appendix G).

Additional help and information is also available at the California Integrated Waste Management Board's venue facilities and special events website www.ciwmb.ca.gov/Venues/.

Section 1: Why You Should Care About Reducing Solid Waste

Waste Reduction Is Not Only the Law, It Makes Business Sense

On October 29, 2004, Governor Schwarzenegger signed AB 2176 (Montanez, Chapter 879, Statutes of 2004) regarding waste reduction at large venues and events. The new law requires the largest venue facilities and events (as defined) in each city and county to begin planning for solid waste reduction and annually report the progress of their recycling and waste reduction programs to their local government.

The law also directs the California Integrated Waste Management Board to provide guidance and assistance to venues and local governments in meeting their obligations. This guide is one of many tools aimed at doing just that.

In addition, the cities and counties in California where you hold events, and State-owned or operated venue facilities that you may use, have a legal obligation to reduce the amount of solid waste sent to landfills by 50 percent and maintain that reduction into the future. (See Appendix B for more information on legal mandates.)

In addition to State law, some local governments such as San Francisco, Los Angeles, Alameda, and Santa Clarita have set their own municipal goals of up to 75 percent waste reduction. Other cities and counties have banned certain materials from their local landfills, such as construction and demolition waste or landscaping cuttings.

Every year, more local governments, venue facilities, and corporate and professional association customers are requiring documented participation in waste reduction and recycling programs as a bid, contract, lease, or site use permit condition. This trend is expected to spread rapidly. Even privately owned businesses can expect to be affected as municipalities seek to minimize their waste disposal and “level the playing field” among all local venue sites and event operators.

There is no doubt that activities at local venue facilities and special events generate a large amount of waste in a short period of time. A 2002 study of a limited sample of venues showed an average waste generation range of one-half pound to one and a half pounds of discarded material per day for each attendee. Think of your attendance statistics for last year and do the math or look up the amount of waste you had hauled away. Even if you already recycle some materials, most of the other materials produced by your venue facilities or events probably wind up being hauled to a landfill.

Reducing your waste can decrease operational expenses, provide additional revenue, provide safer conditions for your workers, and offer possible tax deductions that will increase your net profits directly at the bottom line.

Your patrons who now routinely recycle materials at their homes, businesses, and schools expect to be able to recycle at your venue facility or event.

Taking a leadership role in environmental programs can improve your corporate image in the community and provide a marketing advantage in attracting new customers and employees.

Waste Reduction Can Be Done

Some private sector firms are already getting the jump on their competitors. For example, the facility management firm SMG voluntarily set out to cut waste by half at its Moscone Convention

Center in San Francisco, primarily for business reasons. The opportunity to significantly lower disposal fees and increase marketing opportunities among the many groups seeking “environmentally responsible” meetings and social events made the choice a logical one. Caterers, product suppliers, and subcontractors at the convention center are now chosen, in part, on their ability to participate in recycling and charitable donation programs that have become the standard facility policies for reducing waste. Potential event clients are informed how much less they will pay for waste services compared to competing facilities, and marketing campaigns feature the many environmental awards the facility has earned.

As more jurisdictions and venue facilities adopt waste reduction policies, business opportunities will become limited for those firms that cannot document environmentally friendly practices to the host community. By acting now, venues and events have the opportunity to choose and design the best waste programs for their enterprise, rather than trying to work under the restrictions of a “one size fits all” mandate.

The Financial Benefits of Re-Engineering “Waste-Full” Practices

Waste is material that was originally paid for and handled at a cost, but not used to generate income. Adding more efficient machinery, streamlining operating procedures, and retraining workers usually lowers overall costs. Solid waste management is an area that most venues and events-related businesses have not yet redesigned for maximum profit and efficiency.

The rewards for greater efficiency can be significant. Some venues have found that by including waste reduction practices they have been able to cut their waste disposal fees by as much as 50 percent. They can also save on the purchasing of materials. General business studies of waste reduction have found that the internal productivity savings from decreased material handling and storage space are often many times that of the straight cash reductions.

Even if your net savings are less, you will be doing the right thing and can use your environmental record to enhance your reputation in the community and generate positive publicity.

Section 2: Planning a Waste Reduction Program

Elements of Waste Reduction Planning

Waste reduction is more than just recycling beverage cans and bottles. It’s a way of thinking about all materials, operations, and contracts that directly or indirectly result in the solid waste disposal fees and other expenses now draining revenues from your enterprise. The key elements for developing a waste reduction program are:

- Learn the basics about waste management and waste reduction.
- Get a management commitment.
- Develop a waste reduction plan and timeline.
- Section 3 of this manual will discuss implementing and improving your program. Below you will find information about how to complete these steps and helpful samples and tips you can use in developing your own program.

Part 1: Learning Waste Reduction Basics

Once you start looking around your enterprise, waste reduction opportunities—and potential savings—will become apparent in almost every aspect of operations. You need not be a technical expert; the basic strategies listed below are straightforward and compatible with good business practices.

- **REDUCE** the amount of waste that comes in the door from your suppliers. Buy only what you need, buy in returnable containers or in bulk packaging, and buy pre-trimmed food supplies. If there is less to begin with, there will be less to handle, store, and dispose.
- **REUSE**—Choose durable equipment that can be used over and over again and offers a better value in the long run. If disposal of product packaging is an unwanted expense, how much more do you lose by having to replace the entire product after each use?
- **REPAIR**—A product has truly returned its cost only when it is totally worn out. Well-designed, good-quality products are worth fixing; their repair usually costs only a fraction of a new product's price. A repaired product won't require training for your employees to use. If a product is truly exhausted, use it for parts and recycle the scrap materials.
- **RENT** or lease infrequently used equipment to reduce your purchase and repair costs. Or, avoid all the problems of storage and labor by purchasing services instead of products and equipment.
- **RECYCLE** every material that can be marketed or composted in your community. Recycling costs less than disposal in most cases. Specifying purchase of products and packaging made from recyclable or compostable materials will decrease the amount of unrecyclable waste later on.
- **REQUEST** products made with “postconsumer recycled-content” material when purchasing supplies and products. This will help create a market for your recyclables and improve prices paid for them.
- **REVISE** your cost accounting for purchasing products to include the life cycle problems of handling and disposal. For example, cleaning products made with toxic and hazardous chemicals may be cheaper to buy but are more dangerous to use, causing more “sick time.” These products cost much more to dispose than their biodegradable and non-hazardous alternatives.

Just pointing out these possible savings and strategies listed above to fellow employees, supervisors, and managers during the course of your work can build enthusiasm and momentum in the organization for change.

Part 2: Getting Management Commitment

Most successful innovation in a business or nonprofit organization requires a quantifiable goal and visible support from top management. Employees will then feel confident in bringing waste reduction ideas to their supervisors, and the project team knows they have support in devoting company resources to waste reduction programs. If you don't already have top management support for an organization-wide commitment to the environment, you will need to make a proposal to adopt one. You need not have all the details now; what you want is a basic commitment and permission to develop a waste reduction plan. Some of the useful steps in preparing to speak to top management are:

- Identify all the decision-makers and organization functions that need to participate, such as executive, financial, and operations.
- Understand the decision-making process. Will you need simple oral approval, multi-level written sign-off, or a formal vote by committee or board to proceed?
- Briefly describe the existing waste problem and its negative effects on the enterprise, such as the overall amount of labor and money now spent on disposal, and the potential safety and public image problems associated with disposal and litter.
- Outline the program you envision and your goals. These may evolve as you plan and implement your program. You may need to check back periodically as you proceed.
- Cite other businesses or competitors that have a successful waste reduction policy and plan. Use local examples or similar venues or events if possible. The local government’s recycling coordinator may also be able to give you local examples of success. Below is a list of venues from around the state that have won an award from the Waste Reduction Awards Program (WRAP). (See www.ciwmb.ca.gov/WRAP/ for more information.)
 - Bear Valley Cross Country Resort
 - Commerce Casino
 - Del Monte Golf Course
 - Disneyland Resorts
 - Long Beach Aquarium of the Pacific
 - Los Angeles Zoo
 - La Jolla Beach & Tennis Club
 - Moscone Convention Center
 - Santa Anita Park Race Track
 - Sea World Adventure Park
 - Staples Center Arena
 - Turtle Bay Exploration Park
 - Yosemite National Park
- Generally describe what a typical management support statement contains, but don’t get bogged down in details. The planning team can bring back proposals for policy statement language and suggested goals for approval later. Examples of policy language can be found in Part 3 of this chapter.
- Identify the final decision required to be made, and prepare possible options. Seek permission for specific follow-up actions such as setting up a committee, gathering more information, drafting a policy statement, drafting a plan, or developing a pilot program.
- Other tips:
 - Ask for ideas and guidance from mid-level managers before going to the top.
 - Try to be factual and objective as to what management support will involve.
 - Relate supporting a waste reduction program to the other goals of the organization.

Outlining the Benefits of Waste Reduction

The top concern on the part of management will probably be, “What will this program cost and where will we get the funds to pay for it?” It is important to include good business and financial reasons for the project as well as environmental arguments.

Estimating the exact time and fiscal resources needed for a waste reduction program can be difficult until you obtain information during the planning stage. However, many parts of the program may cost nothing. Some may even make money. The program start-up can usually be timed during contract renewals, facility rehabilitation projects, and periods in between seasons to minimize disruption to current operations.

Here are some points of discussion you can use now to show why a waste reduction and recycling program is a good corporate investment, and where the savings for the project start-up might come from:

- **Cleanup Costs**—teaching your visitors to properly recycle can lower the amount of cleanup work and time for your staff. If you place recycling collection containers in convenient locations (such as next to each trash can), many visitors who would otherwise drop their empty beverage containers on the ground will recycle. If placing recycling collection cans on-site is not feasible, a separate pickup of beverage containers from the ground in the seating areas prior to the general sweep-up can almost always be done at no additional net cost.
- **Purchasing and Materials Handling Costs**—consumer studies suggest that, on average, \$1 out of every \$10 spent on products actually pays for the packaging, NOT the product. And, it is not uncommon for 10 percent of raw food purchased by commercial kitchens to wind up as preparation waste. Buying in bulk usually lowers purchase costs and reduces the amount of packaging material to be disposed, and thus reduces your trash bill. But, the greatest savings may come from increased productivity. Studies by Target retail stores and an Alameda County service agency both found that although their pilot waste reduction programs provided a significant reduction in disposal fees, the total savings from reduced labor and storage was 10 times as large.
- **Disposal Costs**—light, bulky items like cardboard and empty beverage containers take up valuable disposal bin space. If you contract for waste hauling service by the cubic yard or bin pickup and don't recycle these bulky items, you are paying your service provider to haul air. By purchasing products with minimal packaging and by recycling, you can maximize disposal space and lower your overall fees. Another option is composting. Some compost facilities will accept your landscape waste and kitchen scraps for less than landfills charge to dispose of garbage, or will trade finished landscape compost for your compostable materials. Composting food scraps rather than sink grinding them may lower water and sewer fees. Switching to non-toxic cleaners and recycling engine oil reduces hazardous waste disposal fees, and you may be paid for your oil. To learn more go to <http://www.ciwmb.ca.gov/UsedOil/Recycle.htm>.
- **Revenue From Recyclables**—if you haul your own trash, you can usually derive some income from the sale of cardboard, and California Refund Value (CRV) bottles and cans. If you contract for waste service, you can often find a hauler who will also remove your recyclables for free or credit a percentage of their worth against your disposal fees.
- **Tax Deductions**—donations of surplus food, equipment, construction materials, recyclables, and other items to qualified charities may be tax deductible.
- **Publicity**—formally announcing your waste reduction and recycling success to visitors and the press will improve your business's public image. Recycling can also be used to extend the publicity cycle of an event for an extra day. News media now annually covers some post-event recycling for activities such as Fourth of July and county fairs.

- **Marketing**—waste reduction and recycling could be the basis for different and fun event marketing promotions, such as offering reduced entry fees for kids who bring in a bag of deposit value aluminum drink cans to recycle. A promotional souvenir cup offering beverage refills at a reduced price can lower the number of disposable cups needed. A documented program for reducing waste and recycling can be used to market catering and events to environmentally oriented groups. “Green” companies stand out in competitive bidding for leases of public facilities, since all California jurisdictions are now required by law to reduce their landfilled waste.
- **Liability**—empty cans and bottles or food waste underfoot in crowded public walkways can cause accidents and impede the disabled. By recycling these materials through a collection container and/or a grounds pickup program, you will reduce the potential for liability and demonstrate that you have a process in place to protect visitor safety.
- **Public Health**—overflowing garbage cans are a visible public health concern to inspectors and decrease visitor confidence in your sanitation practices. Providing separate containers for recyclables will increase the space available in your public trash cans.
- **Environmental Mitigation**—actions like recycling construction and demolition waste, purchasing recycled-content materials, and lowering disposal from ongoing facility operations may be used as proof of solid waste mitigation for building permit applications, environmental impact documents, and community planning meetings.

Remember, it isn’t necessary to have all the answers; the purpose of the waste reduction plan and the planning team is to fill in the details and work out solutions.

Part 3: Developing a Waste Reduction Plan

Forming a Planning Team

The first step is to form an in-house waste reduction “green team” to coordinate, plan, implement, and maintain the waste reduction program. Some of these team members may only provide specialized information on certain issues or receive periodic progress reports, but it is important to keep them in the loop to prevent problems during the program’s implementation phase. A sample team for a mid-sized venue might include:

- Venue waste reduction coordinator—a single point of contact for overall plan development.
- Venue management liaison—communication contact with top management.
- Purchasing coordinator—a major player in waste reduction and prevention.
- Venue facility operations manager and section supervisors—even if they don’t appear to be directly involved in waste generation, all worker groups will need to be kept informed. They must cooperate to prevent contamination and coordinate the flow of recyclables.
- In-house events coordinator must keep track of events needs and issues.
- Labor representative to inform workers of changes in process and procedures. Their input and cooperation is critical to program success.
- Legal resource person (as needed).
- Finance/budget resource person (as needed).

You should also involve your business and waste management partners as needed:

- Major materials suppliers and services subcontractors.
- Managers for major events held at the facility.
- Venue waste hauler.
- Local materials recycler.
- Local composter.
- Local government recycling coordinator.
- Professional waste management consultants (if needed).

One frequently asked question is, “Do I need the services of a professional waste management consultant, or can a program be done by my own staff?” There is no clear answer to this question. Venue and event operations differ greatly, and good programs can be found that were developed both with and without a consultant’s assistance. Some venues have used consultants to help with technical or research-oriented work in the start-up phases, but they implemented most of the project on their own. Determine how much time and effort your planning team and operations staff is able to put into the project, and check with other venues of your size and type, or those in your local area, for advice.

If you want professional assistance, check if your host city or county offers free waste consulting to local businesses. Also, some waste haulers have business waste reduction and recycling experts on staff as part of their client services. If these sources don’t have staff available to help, they may be able to provide referrals for independent consultants.

Advice and referrals can also be obtained from professional waste reduction organizations such as the California Resource Recovery Association (www.crra.com) or the National Recycling Coalition (<http://www.nrc-recycle.org>). Web-based searches for “environmental planners” and your local chamber of commerce or phone book can also be helpful.

Remember that each member of the team has particular interests at stake. Your current waste hauler, for example, might not be supportive of a recycling plan that does not allow them to haul the recyclable materials. Some labor groups are leaders in environmental issues; others see any form of change as additional work. Always crosscheck advice and ideas from team members to be sure that they are the best choice and realistic for your particular organization.

Writing a Waste Reduction or Environmental Policy

A written waste reduction policy will guide employees in their daily activities and demonstrate to customers, neighbors, and investors that your business is using resources efficiently. Good policies need not be lengthy or involved; but it is important that your policy be clear and meaningful to your staff and customers.

A waste reduction policy is most effective prior to implementing a program, but it can be adopted at any time. Some organizations are more comfortable adopting a program after trying it out and seeing its merits. When you are ready to implement a policy, refer to Appendix F for additional information.

Setting a Waste Reduction Goal

Publicly stating a goal will help focus the organization's attention on waste reduction. One of the important tasks of your planning team will be to set up a meaningful waste reduction measurement system and train the responsible staff to keep reasonably accurate records.

Usually, it is best to have a single overall goal (25 percent reduction in total waste disposed, for example) to unify the staff and allow for varying contributions by different activities.

You may want to make the first goal easily reachable or cut a larger goal into phases so you can encourage staff by building on their successes.

A key point in setting a goal is that it be measurable. While total tonnage or cubic yards of waste is often used to measure progress, goals can also be phrased in terms of:

- Savings (for example, cut our waste bill in half).
- Materials (recycle 80 percent of all cardboard).
- Activities, events, departments, or functions (reduce waste from concession operations by 35 percent).

Reducing disposed waste is a gradual process that may take more than a single year or season. Aim for continuous improvement and include enough flexibility to cover the ideas or programs that may not work out perfectly at first and will need to be redesigned.

Determining Management Information Needs

Collecting accurate numbers about the results of your waste reduction programs on a per- event, month, or quarter basis allows you to determine your progress, make adjustments in your program, and provide the data you will need if you are required to provide waste reduction program information to your local government under the mandates of AB 2176.

There are various ways to quantify results, such as in numerical terms (we collected 500 pounds of recyclables), reduction rate (we reduced our total facility disposal tonnage by 10 percent compared to the previous year), in relation to your corporate goals (we exceeded our 50 percent recycling target by 10 percent), or as a function of budget or attendance (we reduced waste per attendee by 15 percent). Some factors you may want to track are shown on the following page.

- Disposal tonnage
- Recycling tonnage
- Amount of materials reused and number of reuses
- Space or weight reductions in materials purchased
- Total generation (waste disposal plus diversion)
- Waste disposal costs, internal labor costs, and disposal fees
- Waste reduction program expenses
- Waste reduction savings (source reduction, reuse, sales of recyclables, disposal fee savings)

Conducting a Waste Survey

Creating a list of all of the different wastes generated at your facility or event, and the amount or percentage of each is known as doing waste survey. It will help you identify materials that can be reduced at the source or recycled, those that must be landfilled, and those that are hazardous and

require special handling. It will also help you identify what parts of your facility and operations are generating the waste and where programs should be targeted. Conclusions such as “about 30 percent of the volume is beverage containers” and “most cans and bottles are thrown away near the concession stands” may be all the data you need to justify a low-cost start-up program.

Look around your facility and note which materials apply to your operations. Notice too that many of the same materials show up in almost every area of the site. The amount and type of materials may change by event depending on the activities and vending concessions offered. The materials may also change during pre-event set-up, the event itself, and post-event cleanup. Staff may oversee the operations and maintenance, or this function may be contracted out to service providers that remove their own wastes.

WASTE SURVEY OPTIONS

Many operations, even small ones, eventually want to get beyond the most obvious recycling opportunities. Learning by a series of wrong guesses can be a difficult and expensive education. You may get to the point in your program where you need more information than your informal waste survey provides. If so, you may want to consider one of two options:

- Conduct a waste survey based on a thorough and statistically representative selected set of waste samples. This is initially more costly and time consuming; but it is much more accurate, answers many more questions, and can better predict waste reduction program costs and revenues. The higher quality information collected by this method may be useful if you want to justify significant equipment investment decisions, such as buying a paper-baler to expand on an already successful start-up program. See Appendix C for more information about doing your own statistically representative waste survey, including criteria for contracting work, web links to safety protocols, instructions on how to do a waste sample, and a downloadable data recording form.
- Find a similar facility or event that has done a reliable waste survey and use their data to guide your program. Check with your venues and events professional association or similar facilities in nearby towns to find possible data sources. Be aware that similar events can often differ in waste generation due to product mix and operating practices. Also examine the methods used to collect the data. If the study was not well done, you may be borrowing someone else’s mistakes. Summary data from some venues and events types can be found at the Board’s website at www.ciwmb.ca.gov/Venues/Analysis/.

USING WASTE SURVEY RESULTS

After completing a waste survey, you will need to analyze the data. Many people shy away from data analysis because it sounds like something requiring long and complex mathematical work. This is generally not true. The goal of any survey is to obtain useful facts about where, when, and how waste is being generated. Frequently, a simple visual review of summary numbers, some simple questions, and your common sense can quickly yield real insights.

For example, start with the top five materials by weight or cubic yards as listed on your completed survey form and ask the following questions for each:

- What is the waste material being generated: food, paper, cardboard, plastic, glass, etc.?
- Where in the facility is the largest amount of the material collected: seating areas, concourse, concession stands, kitchens, offices, animal barns, etc.?

- When is largest percentage of the material generated – during setup, the event, or post event cleanup?

Other questions that may be answered by reviewing material subcategories are:

- What specific products are most frequently found in your waste? For example, roughly what percent of the paper waste is made up of packaging boxes and wrapping, consumer food serviceware such as cups and napkins, or give-away/promotional items such as event programs, brochures and catalogs, etc.?
- What percentages of the waste are recyclable/reusable? Unrecoverable trash?

Discussing the results of your analysis with experienced facility/event staff can add meaning to the information and help you pinpoint potential areas for waste reduction programs. For example:

- What specific activity is generating the material and when did this happen: food preparation, event sales to visitors, ticketing and office paperwork, facility maintenance, construction, animal care, etc.?
- Who actually originates the waste material: suppliers, staff operations, concessionaires, and subcontractors, or do visitors bring it in?
- What is the total cost of this waste material to your operation as a percentage of the initial product purchase, storage and internal handling costs; and as a percentage of your total disposal bill?
- How does this information relate to other known data? For example, reviewing food concession purchase preferences may show that 50 percent of total sales volume involves only four or five menu items. Controlling wastes from just these few products could provide a significant reduction in disposal.

Certain materials and operations will probably show up quickly as big offenders in generating waste tonnage and disposal fees. Other materials like packaging may not weigh as much or be an obvious problem at any one stage of operations. But they may require a lot of storage space or handling expense in the overall waste flow from initial purchase to final disposal.

More importantly, the waste survey exercise will probably lead to broader discussions among your staff about the materials and products you are using and selling to the public and how your operations and processes can be improved. This “process re-engineering” allows your managers and supervisors to think about waste as a cost and labor expense, and it taps into their creativity to bring up new waste reduction ideas based on their daily experience. The results of this analysis frequently lead to more productivity savings in the areas of time, labor, operations, and materials purchasing than in recaptured waste disposal fees.

Determine Which Materials Can Be Reduced or Recycled

Once you understand what is in your waste and the activities that generate each type of waste, you will need to figure out the best way to minimize your waste. Reducing waste at the source should be your first consideration. Preventing the generation of waste is an action that you can start at any time and it is an area offering great potential for time and cost savings. If less waste enters your facility or event, the amount of waste you manage will be less. Re-evaluate the items you purchase to see if they are really necessary. Often the same product or service can be delivered without generating as much waste.

- If you must buy products, look for those that last longer, can be easily repaired, or can also be used for other purposes. Repairable and reusable products often prove most economical.
- The purchasing and contracting process is key to successful source reduction as well as recycling. Keeping excess and waste products from coming in the door, making sure that packaging and other materials that do come in are made from materials that are reusable or are recyclable in your area, and making sure that vendors and subcontractors are responsible for and are appropriately charged for their waste will control a large percentage of your waste problem. Much of this can be accomplished by one-time changes in policies, procedures, bid specifications, and contract language.

RECYCLABLE MATERIALS

Generally, the best materials to recycle are those that can be collected in quantity, are relatively free of contamination, and can be sold or hauled for less than the cost of disposal. Local collection conditions and markets for materials vary; if possible, contact other venues of your type and/or other events in your area to determine which materials can be most successfully diverted. Recyclables are usually more valuable if materials are separated, and for large amounts, they are baled into bundles. This will also decrease the needed storage space. The most common materials generated by venues and events that can be recycled or composted are:

- **Corrugated Cardboard**—“Brown” cardboard from boxes and containers is often the largest volume of material produced, and while sales revenues may vary, the market for it is usually steady. Brown kraft wrapping paper can sometimes be included in the mix. Cardboard is more desirable to recyclers if the boxes are clean and flattened. Waxed cardboard will not be acceptable to a cardboard buyer, but it may be acceptable to a composter.
- **Plastic**—As a recyclable material, plastic has a mixed market. In some regions it is actively sought, while in other communities there is little or no demand. Some plastic buyers only want narrow-necked polyethylene terephthalate (PET) #1 bottles, while others will accept a wide range of container types and all seven major types of plastic resin. In order to recycle recovered plastic, it usually must be separated by resin type, although some dealers will accept mixed loads at lower prices or for a fee.
- **Beverage Cans and Bottles**—Glass, aluminum, and plastic beverage containers in California have a dual value: as a recyclable material, and from the return of the California Refund Value (CRV) deposit. The CRV is 4 cents on containers less than 24 ounces, and 8 cents on containers of 24 ounces or greater. CRV containers include those for the following:
 - Carbonated soft drinks
 - Wine coolers
 - Distilled spirit coolers
 - Beer
 - Carbonated and mineral water
 - Non-carbonated water
 - Sports drinks
 - Coffee and tea drinks
 - Fruit drinks
 - Fruit juices packed in containers less than 46 oz.
 - Vegetable juice in containers 16 oz. or less

Visit http://www.conservation.ca.gov/DOR/dmr/container_manufacturers/index.htm for additional information about CRV containers.

- **Non-CRV glass**—Wine bottles are generally recyclable. Other non-CRV glass has a mixed market; in some areas there is little or no demand for it. Many buyers require that collected glass be separated by color (clear, green, and brown) although some will accept mixed glass. Usually, broken glass and paper labels are acceptable; however contamination from other materials such as bottle caps must be low. Ceramics, incandescent light bulbs, and other specialty glass are usually considered to be contaminants and are not accepted. Treat fluorescent light bulbs as hazardous waste.
- **Paper**—Most types of paper are recyclable. Paper has many types and grades; however, two of the most common collection grades are “high grade” and “mixed.” High-grade paper typically includes white office copier paper, white computer paper, white office stationery, and white note paper. Mixed paper includes nearly all white and colored office paper, file folders, manila envelopes, event programs, flyers, newspapers, and gray boxboard (paperboard). Mixed paper is considered to be lower quality and generally yields a lower market price. In some markets, recyclers may even charge for taking it, but the fee is usually less than the cost of disposal. Buyers of either type of paper usually prohibit contaminants, like certain glossy or neon colored paper and some types of tape. Strategic purchasing of supplies to eliminate potential contaminants can ensure the highest prices and acceptability of the recyclables.
- **Metals**—Aluminum and tin/steel cans, aluminum foil, copper, and other scrap metals are readily recyclable. Collection requirements, such as separation by material type, depend on the local market situation.
- **Food waste**—Unserved but wholesome prepared food and unused surplus food supplies can usually be donated to local charity soup kitchens and community food banks. The gift may be tax deductible. It may be possible to send kitchen preparation trimmings and postconsumer plate scrapings of food to a local composter along with your landscape green waste, if the composter is permitted to accept food waste. Small amounts of fry grease or meat fat trimmings may also be acceptable to the composter, but larger amounts should be contracted to a rendering pickup service.
- **Green waste and manure**—Plants, centerpieces, and other decorative greenery in good condition can often be donated to hospitals and senior centers. Branch and leaf landscape trimmings can be chipped on-site and reused as plant mulch. Grass cuttings can be left on the turf as fertilizer, or added to the mulch mix. Or, these green materials, plus animal manure and bedding can be sent to a compost facility. Composters usually charge lower fees than landfills, and some will trade raw green waste for finished compost.
- **Used motor and lubricating oil**—Centers certified by the State may pay you a small amount for your used oil and filters. Non-certified centers may accept small amounts of used machine and motor oil and used oil filters for free or at a great savings over the alternative of disposal as a hazardous waste. Amounts more than 55 gallons require the use of a registered hauler. Oil contaminated with antifreeze, solvents, gasoline, or water requires special handling. See www.ciwmb.ca.gov/UsedOil/ for more information.
- **Construction and demolition waste**—Many landfills now ban mixed construction and demolition wastes. Materials such as concrete, asphalt, wood, and structural metals can usually be recycled if properly separated. Surplus new materials such as paint, wallboard, lumber, and electrical fixtures can often be donated to local schools and housing development charities. See www.ciwmb.ca.gov/ConDemo/ for more information.

- **Other recyclables**—You may be able to recycle or donate other miscellaneous materials, such as signage, furniture, electronics, rugs, and textiles. Check with your local government recycling coordinator, waste hauler, or public works agency to locate a market. Items can also be listed for free on a state or local materials exchange. See www.ciwmb.ca.gov/CalMAX/ for more information.

Information on finding recyclers and buyers for these materials can be found in Section 3 of this document. Waste reduction and recycling ideas can be found in Appendix D and additional resources are listed in Appendix E.

NON-RECYCLABLE MATERIALS

Your local city or county recycling coordinator or your waste hauler can identify materials that have no market or are otherwise non-recyclable in your area. Check your recyclable loads regularly for contamination and if found, eliminate it at the source. Materials may not be recyclable because:

- There is no local market.
- They are hazardous (see below).
- They are contaminated with non-recyclable waste or materials.
- They are made from a variety of materials, such as aseptic drink boxes (juice boxes) and aluminum coated plastic potato chip bags.

Try to limit the amount of non-recyclable waste you produce. There is often an equivalent product that can perform the same function that is made from recyclable and marketable material. Work with your purchasing manager and local recycling coordinator to identify alternative products and develop specifications that can be written into supply bids and contractor agreements to stop non-recyclable waste before it gets through your door.

HAZARDOUS MATERIALS

Some products in use at your facility have certain chemical or biological characteristics (ignitable, reactive, corrosive, or toxic) that make them hazardous, and some are specifically listed in hazardous waste regulations. These products are generally not recyclable or acceptable as municipal waste and require special handling and disposal. The products include the following:

- Cleaning product containers and aerosol cans (hazardous materials)
- Lead-based paint-related wastes (paint chips, sandblast media, etc.)
- Used shop towels and rags (oil or chemical soaked)
- Empty oil-based paint cans
- Floor cleanup sorbents (dry)
- Used batteries
- Cathode ray picture tube computer and television monitors
- Veterinary drug containers and used hypodermic needles
- Fluorescent bulbs
- First-aid medical waste and some pharmacy drug containers

Although they are classified as hazardous, many of the above wastes can be recycled. Contact your local government or see the Department of Toxic Substances Control website at www.dtsc.ca.gov for more information about hazardous material characteristics, safe disposal

options, and environmentally safer alternatives. Check with your waste hauler for a list of hazardous materials requiring special handling.

The best practice for hazardous materials is prevention; there is often a non-hazardous product that can perform the same function. When you add in the higher fees associated with hazardous material storage, disposal, insurance, and workplace injuries, non-hazardous equivalents that cost more to purchase initially could actually save you money. Work with your purchasing manager to determine whether you can have the suppliers of hazardous materials take back empty containers and used materials for proper disposal. Develop non-hazardous product specifications that can be written into supply bids and subcontractor agreements.

For hazardous materials for which there are no substitutes, you should develop strict practices for separate handling and disposal to prevent contamination of reusable or recyclable materials. A small amount of hazardous material can contaminate an entire load of recyclables. Receiving top dollar for your recyclables depends on your ability to supply clean, acceptable materials.

Choosing Target Programs and Priorities

Identify the materials and operations that generate the greatest waste problems and provide the greatest potential for reduction or recycling. Then work with your waste hauler, local recycler, and your internal “green team” to match the results of your analysis to local prices paid for materials, handling costs, and disposal fees. Start out with a few strategic programs that will educate your staff and demonstrate success. Some criteria to consider in choosing your programs include the following:

- Greatest chance for success.
- Potential for greatest waste reduction. If you are paying for disposal by the cubic yard, look first at bulky materials that occupy the most “air space,” like containers. If you are paying by the ton, consider materials with the heaviest weights, like food wastes.
- Lowest net cost to implement.
- Compatibility with current or planned operations. Consider things such as storage space, labor force, etc.
- Easiest to implement, measure, and report. For example, rewriting contracts, leases, and policies for suppliers, subcontractors, and site users to mandate waste reduction programs and reporting. Recycling is generally easier to measure than source reduction.
- Availability of purchasing cooperatives and industry group buys.
- Willingness of nearby businesses to share or lease use of collection or processing equipment.
- Removal of barriers to diversion of major materials; for example: some plastics and broken glass can contaminate compostable food and green wastes, preventing their acceptance by compost processors.

With the above in mind, many venues and events find that CRV beverage containers, cardboard, and mixed paper are a good place to start. They then implement additional programs as resources allow. If you need additional ideas, review the list in Appendix D to see what might work for you.

Budgeting Financial Resources

While you may have some expenses for new equipment, savings in other areas may reduce the net costs. For example, the National Association of PET Container Resources (NAPCOR), a

plastic bottle industry group, has found that separate pickup of plastic beverage bottles usually pays for itself.

Perhaps the simplest place to get funds for your waste reduction and recycling program is from your existing budget for solid waste disposal and other related expenses. Section 2, Part 1 of this manual suggests some potential sources of savings.

Some sources of external funding are:

- The California Department of Conservation (DOC), Division of Recycling website, www.consrv.ca.gov/DOR/grants/index.htm, provides grant information. Some grants are competitive; others distribute funds directly to jurisdictions for beverage container recycling and litter cleanup activities. Your local government recycling coordinator or solid waste department can tell you if any of the grant funds in the jurisdictions are available for venue or event programs.
- Your local city or county may have other dedicated funding resources. For example, the County of Alameda offers limited competitive loan and grant funding to nonprofit agencies and businesses located in the county for waste reduction, public education, and green building programs. See <http://www.stopwaste.org/home/index.asp?page=501>. Check with your local government recycling coordinator or local government website. For a searchable list of local contacts see www.ciwmb.ca.gov/Profiles/Juris/.

In some cases, collection and recycling programs may not generate revenue, or they may only break even. Quantity, market demand, condition, contamination rate, and preparation (such as baling) all play a factor in prices paid for your recyclables. Even if the hauling of recyclables costs money, it is usually a lower price than the fees charged for disposal; so recycling should always be calculated in terms of its net costs.

Section 3: Implement and Improve the Program

Once you've received management approval and your plan is developed, it's time to implement the program. The most important thing to remember is that putting your plans into actual practice will require many adjustments as you go along. Delays and modifications are a normal part of the process and should be expected. Flexibility is the key to success.

Identify Changes in Existing Business Practices

One of the major potential barriers to implementing new waste reduction programs is that the operations staff may see them as disrupting established relationships and procedures. Reduce these potential problems by holding meetings with the affected staff to discuss solutions. Most issues will relate to the following major areas:

- **Workload**—Some staff or supervisors may initially see waste reduction and recycling tasks as an additional burden on an already overstretched staff. In practice, additional staff is usually not needed. The program often adds only a few tasks for each worker and includes only minor changes in procedure or work reorganization. Many of the changes involve one-time adjustments in work processes and additional time for training. An important possible benefit from revising work processes is that the rate of accidents and injury may go down. For example, placing recyclables into a separate collection container means that collection

workers are lifting less weight out of the trash can. Given a chance, employees will frequently suggest their own solutions to perceived workload and process problems.

- **Scheduling**—This includes the time required for additional recycling tasks on a daily basis, and the timing of major changes in operations. Most tasks do not take significantly longer; for example, servicing recyclables might be done at the same time as trash pickup by using a divided collection cart. To minimize disruption to operations during the learning period, schedule the start-up of new waste reduction elements during slow periods, or at natural opportunities for change, such as in-between seasons, at contract renewals, or during facility rehabilitation projects. Plan well in advance. The County of San Mateo has a handy overall task time line for planning a special event located at www.recycleworks.org/business/ep_timeline.html.
- **Staff training and education**—Training and education can be done in a separate special session, as part of traditional education periods such as the start-of-season training, or done in-service on an ongoing basis by adding one element or task at a time. Always explain the need for and benefits of waste reduction. You may be surprised at the positive reception from staff, since many of them recycle at home and already accept the idea.
- **Budget**—Many venues with recycling programs have found that their overall costs stayed the same or went down as time passed. However, budgetary increases may occur during program startup. Management should budget for this cycle and assure workers that other priorities are not being sacrificed for the new program. Sharing information with the workers on a regular basis about the actual savings from the program should help allay fears. Allowing work units to keep any savings as part of their general budget can provide motivation for acceptance.

Find a Buyer for the Collected Materials

Be sure to locate haulers or processors well before you begin implementation of your recycling program. Before contacting possible buyers, first identify the major types of materials in your waste, the approximate amount generated, and how often the supply will be available (by event, weekly, etc.).

Recyclables can be handled by different methods, such as self-hauling to a recycling center or pickup by a commercial waste hauler, an independent commercial recyclables collector, or a nonprofit community service group such as the Local Conservation Corps or a charity organization. Costs and prices paid may vary, so shop around for the best deal. Tips for finding a recycler in your area:

- If you are managing an event, first check with the site facility manager or custodian of the facility where the event will be held about any possible existing facility recycling programs or services.
- If you pay for your own waste disposal hauling, see your hauler for advice about their recycling services.
- Your city or county may have a local government recycling coordinator, usually found in the public works or environmental affairs department; or the local government may have a recycling section on their website. For local government contacts, see www.ciwmb.ca.gov/Profiles/Juris/.
- The statewide recycle hotline 1-800-RECYCLE, or the Earth 911 website www.earth911.com has lists of local recycled material haulers and buyers.

- Contact other venue operators and event organizers in your jurisdiction, or large businesses near your site, about their collection programs and their market partners.
- If you are located in the San Francisco Bay Area, see the Alameda County Recycling Hotline Database at www.stopwaste.org or call (510) 614-1699.
- Look in your local telephone book under recyclers, landscape materials, metals, landfills, or waste removal services.
- Most local chambers of commerce have a referral service or a business directory.

See more resource sites in Appendix E.

Some questions to ask potential recyclable materials haulers or buyers are:

- What are the different options and fees for handling trash and/or recyclables? Are there minimum amounts or volume discounts?
- How much do they currently pay for recyclables?
- What materials do and don't they handle; can they supply written material descriptions and specifications?
- What happens when market demand goes up or down? Do they stop accepting the materials or simply adjust prices?
- What level of contamination of recyclables is acceptable?
- Can they donate or supply the recycling collection cans and/or signage to put on the cans?
- Can they provide staff training in safe and effective handling of recyclables?
- What pickup schedule options do they offer: daily, on call, only when full, etc.
- Do they offer guarantees for pickups and for recycling of the materials?
- Is a formal contract required? What is the length of the contract? Are they willing to do a pilot program?

Collecting Recyclable Materials

Your waste study probably showed that not all activities generate the same amount of waste or recyclables. Many businesses follow what is called the “80/20 rule”. That is that 80 percent of the waste or recyclables are often generated by 20 percent of the activities, or in 20 percent of the physical space. This means that you might be able to collect large amounts of recyclable material with relatively few targeted programs, and that it may not be cost-effective to try to collect every last pound of recyclable material in every area of the venue site.

Another factor in designing your program for efficiency is to determine when the waste is produced. Many venues and events divide generation periods into the following: the pre-event setup, the event itself, and the post-event breakdown/cleanup. Work with the event custodial staff to determine the best schedule for collection. For example, cardboard generation may peak during the set-up period, and beverage containers during the event itself.

Work with your hauler to determine whether you want to collect and store all recyclables in one can/bin (commingled), have separate collection and storage for each single material (aluminum, glass, paper, etc.), or some combination (mixed beverage containers, and a separate cardboard

pickup, for example). Then determine which materials, generating activities, and physical locations will provide the most effective targets.

Recyclables collection tasks can often be integrated within the existing waste collection program by simply installing recycling containers adjacent to the trash bins at known waste generation sites and adjusting the collection system routes and duties as you gain experience.

Suppliers

Even after implementing waste source reduction and packaging take-back programs, some wastes will come with deliveries. The primary waste generation period from these sources will usually be the day or two before the event, and during event day set-up. The primary materials are often cardboard, packing waste (such as packing peanuts), paper, and pallet shrink-wrap.

Incorporating recycling policies and program information into delivery instructions, or giving oral instructions and/or handouts at the service gate can help orient drivers and delivery persons to your program rules. Providing instructions in Spanish or other languages may be helpful. Place well-marked recycling containers or larger bins at loading docks, truck parking areas, and storerooms to capture recyclables generated as supplies are broken out for distribution. Be sure to also provide well-marked trash cans to minimize contamination of the recyclables.

Vendors/Concessionaires

Generally, vendor/concessionaire programs are easier to implement than attendee programs because there are fewer sources of waste. The waste has a tendency to be clustered in small areas, vendors have a financial interest to cooperate, and a large portion of the waste is generated during pre-event set-up and post-event tear-down periods when the site is less crowded. Typical recycled materials include cardboard, beverage containers, glass and metal containers, paper, kitchen preparation trimmings, and fry grease.

The keys to vendor collections are consistency and convenience. The vendor/concessionaire has to know that the facility or event manager expects cooperation, will check on performance, and that there is a penalty for poor performance or high contamination rates. Generally, most vendors will cooperate at some level. However, incorporating language mandating recycling into contracts, or adding a disposal fee with a rebate for those who recycle, will increase the rate of cooperation and quality of materials collected. See the sample waste reduction policy for exhibitors and concessionaires at venue facilities and events in Appendix A.

A vendor education program, including an explanation of the program and check-up visits, is usually needed in the first few years of the program and for new vendors. Use a checklist to ensure consistent compliance monitoring and enforcement standards. Provide a contact phone number or meeting place for waste reduction questions and requests for additional pickup service.

Recyclables from vendors and concessionaires are generally stored in stacks or placed in containers; the materials are then collected from the vending area using a wheeled cart. Monitoring trash cans can be helpful in identifying those that didn't get the message. Inspecting boxes for labels or type of products may reveal who needs to step up their waste diversion efforts.

Food waste requires special handling. Collection containers for food may need to be washed out. If liner bags are used, double bagging may be needed to handle the weight of wet food. Fry grease is usually picked up separately by a rendering service. Food or grease contaminated cardboard and paper may be acceptable with food for composting. Collection, storage methods, and timing need to take local health regulations and the compost facility's specifications into account. For example, some composters do not want plastic liner bags mixed in their compost material.

VENDOR MOTIVATION AND REWARDS

- Add waste reduction compliance to evaluations and reviews for business partners. Let them know that you will be considering waste reduction in selecting future partners.
- Offer recognition and/or nominal awards for “most pounds recycled,” “least packaging,” and other categories of performance.
- Issue written warnings to non-cooperating vendors. Clearly indicate what they are doing wrong and what they should be doing. Give them an opportunity to explain so they can be heard, and then reinforce the message and work with them to find ways to make their participation easier.
- Consider issuing “fines” for supply, vending, and subcontractor partners who repeatedly fail to comply with programs. Be sure this consequence is noted in pre-event agreements.
- When the event is over, report your waste reduction accomplishments back to your supplier, vending, and subcontractor partners. Thank them for their waste reduction compliance and ask them for their comments and ideas on how to improve the program.

Exhibitors

Collections from exhibitors (such as at a convention center) are similar to those from vendors except that, due to the high turnover of exhibitors at each event and each year, exhibitor education must be constant. It’s a good idea to send out waste management rules with the exhibit package and reinforce the education with on-site visits during the pre-event set-up period. Exhibitors may have less space to store recyclables and may generate more material in the pre- and post-event periods; collection schedules may have to be modified to fit their needs.

Exhibitors of valuable or proprietary items may have strong concerns about collection staff entering their booth area, so between booth storage areas or end-of-row collection containers should be considered if there are no back-of-booth alleys. The largest number of problems usually occurs during the post-event breakdown rush when possibly valuable items such as a box of samples or booth furniture are left behind. To deal with ownership issues, some convention centers have supplied color-coded identification stickers to exhibitors. Anything marked with a collection sticker can be recycled, while the donation stickers have the exhibitor’s name and address attached so tax deduction/thank-you letters can be sent by the recycling coordinator and/or receiving charity.

Attendees

Attendee waste generation patterns depend on the type of event or activity. A fun run or parade, for example, generates long linear areas of thinly spread litter and heavier clusters of material around the start line, finish line, and water stations. A baseball game will generate most of the attendee material in the seating areas, while a more formal event such as a seated opera or play will generate most of the waste in the lobby. A craft or food fair, or beach area, has waste spread out over the areas where the patrons roam or stop to picnic. Convention exhibits and trade shows generally collect more attendee trash at the ends of exhibitor rows. Collection strategies for attendee-generated materials must therefore be tuned to the generation pattern. Following are the two major collection techniques:

- Grounds pickup: The grounds pickup, also known as a bowl-pick or sweep, may occur continuously during an event in heavily trafficked sites such as an amusement park, or after the event in seated areas such as stadiums. Employees first walk an area picking up only

recyclables, then they or a separate crew pick up the remaining trash. Targeted recyclables can be picked up separately by material or as mixed recyclables for sorting later.

- **Collection in containers:** Generally, a collection container for recyclables is placed adjacent to each waste container. Recycling containers are used most near concession stands and at site entrances and exits. If the site is crowded, you may want to consider attaching a “recycling station” pole with a pennant or other signage that can be seen over the heads of the attendees. Collection containers should be emptied before they overflow.

In larger or mixed activity sites such as fairgrounds or airports, multiple collection methods may be needed. There is no one set of methods that are guaranteed effective and lowest cost for all events; you may have to experiment. Some venues have developed their own innovative alternative collection methods, such as:

Seventh inning seat pass—collection staff walk up and down the aisle steps at baseball stadiums between innings and during the stretch with collection bags encouraging a “reverse pass” of bottles and cups along the rows to the end.

Parade roamers—volunteers or staff walk along at the edges of the parade route with recycling bags, either collecting materials as the onlookers generate them or as an “end attraction” to the parade, collecting trash and recyclables separately.

Recycling bag distribution—each vehicle entering the parking lot is given a colorful recyclables bag printed with instructions. Attendees are asked to use it during event-related tailgate or camping activities. The staff members then pick up the full bags and leave new ones while roaming the parking area. The bag distribution idea may also work for informal “on the grass” seated concert and picnic events where attendees may leave the full bag behind or recycle on their way out of the venue.

Collecting Food and Other Compostable Wastes

Donation of surplus unserved food, and diversion of organic materials such as kitchen scraps, plate scrapings, food contaminated paper, landscape trimmings, and animal bedding to a composter can often significantly reduce disposal fees because organic materials and single-use food serveware can make up a large percentage of the waste by volume and weight.

A successful food donation and organics composting program requires early and close coordination between event operations staff, food preparation staff, food charities, waste haulers, and composters. Although a food and organics diversion program can avoid disposal costs, anticipate some additional expenses relating to purchase of collection containers, a switch to biodegradable products, transportation, and staff training.

To find a local composter, check your phone book, or the partial list of sites located on the Board’s website at www.ciwmb.ca.gov/FoodWaste/Compost/Facility.htm. Not all compost facility operators are permitted to accept food scraps, so be sure to ask for a list of acceptable materials and unacceptable contaminants.

Self-hauling your recyclable organics to the local composter or transfer station is an option, especially for small events, but venues and larger events will probably want some type of commercial service using specialized front-end loader trucks that can pick up 2- or 4-yard bins. Many composters can provide their own pickup service, and some waste haulers also offer green waste removal.

There are also sealed “in-vessel” compost systems designed for small to mid-sized commercial generators that will allow you to make your own compost on-site. For more information on this option, see the Board’s website at www.ciwmb.ca.gov/FoodWaste/Compost/InVessel.htm.

Food Donation

Donation of surplus food supplies and prepared but unserved food portions to local food charities may not represent a large volume of material, but it can provide valuable tax deduction and event publicity opportunities. Various charities may target different materials; for example, a local food bank may only be able to take storable supplies, while a food rescue program may prefer prepared servable food. However, some communities support a central food coordinator who can offer a single contact point for all food-related questions and programs. In addition to the food links found on the Board’s website at www.ciwmb.ca.gov/FoodWaste/Donation/, the California Association of Food Banks can be contacted directly at www.cafoodbanks.org or by calling (916) 321-4435.

Contact the charities or coordinator well ahead of the event to arrange for pickup. Generally, the receiving charity can provide detailed instructions on Health Department requirements, collection and storage tips, training for kitchen staff and vendors, classification stickers and product tracking forms, and trays/tubs for transportation. They may even provide on-site collection services from individual vendors. Most food donation tasks for venue operations and vendor booth staff are easily incorporated into their routine duties, but a one-time reorganization of storage cabinets and refrigerator space to separate donations from salable products may be needed.

Collecting Food Waste

Preconsumer food preparation trimmings and postconsumer plate scrapings can often be collected for processing into compost. In addition to vegetable scraps, some compost systems can accept other forms of biodegradable non-food kitchen waste such as paper and waxed cardboard, as well as small amounts of incidental meat scraps, dairy products, cheese sauces, fat trimmings, seafood shells, and bones. Some paper plates and cups may also be acceptable, but if serviceware is made of non-biodegradable plastic, be sure the compost operator will handle them. Also, be sure to ask about other contaminants and load requirements.

Inform food vendors early about your plans to collect food scraps. You may want to require their cooperation through contractual language requiring source separation of food scraps for food rescue and composting collection. Catered and buffet-style events offer greater opportunity to control the flow of food scraps, since only one food service provider is involved. Therefore, your choice of caterer is critical to the success of food diversion efforts. Ask potential caterers if they can provide reusable dishware or biodegradable products, and inquire about their willingness to separate pre- and postconsumer food scraps (if tables are bussed).

Kitchen Scraps

To achieve good separation of recyclables (glass, plastic, cans), organics (food, food-soiled paper products), and garbage, you must provide clear signage and strategically placed collection bins. This practice will also minimize cross-contamination. Always provide a garbage bin beside every food scrap and recycling collection container. Bus trays or similar containers placed on kitchen prep tables can facilitate separation of scraps. Use of liner bags in collection containers can improve cleanliness and reduce residual odors. Wheeled carts or heavyweight liner bags may be necessary to facilitate movement of wet food scraps. Glass and toxic materials, such as cleaners, must be kept out of the collected compostable materials or the load will be rejected.

Small amounts of meat scraps, greases, and fats may be acceptable to a composter; however, larger amounts will require collection by a rendering service. Some renderers will provide storage drums, signage, training for your kitchen staff, and collection directly at vendor booths. Local or regional rendering companies are listed in the yellow pages under “rendering” or “grease collection.” The Board also maintains a partial list of firms statewide at www.ciwmb.ca.gov/FoodWaste/Render.htm.

Non-contaminated kitchen prep trimmings may also be suitable for use at hog farms or other animal feed operations. This option is especially useful for venues having a large and regular supply of materials, and those located in rural areas or areas not served by a composter qualified to accept food waste. For more information about materials, requirements, and the location of a cooperating farm, see www.ciwmb.ca.gov/FoodWaste/AnimalFeed.

Serviceaware

If your composter will accept serviceware like cups, plates, napkins, and utensils made from paper, paperboard, wood, and other compostable materials, then conversion to all-biodegradable serviceware can greatly reduce or eliminate the problem of separating postconsumer food and compostables from unrecyclable plastics. If you use vendors or caterers to supply food rather than running your own operations, consider placing restrictions in their contract on use of unrecyclable or non-compostable materials.

Paper, cardboard, and compostable plastic substitutes can usually be found for all commonly used serviceware and trays. Ask your serviceware suppliers to help you find equivalent alternative products. While bio-plastic products can be more expensive, a combination of traditional paper products and some bio-plastics can often be competitive with traditional plastic serviceware, if lowered disposal and handling costs are also taken into account. Purchasing paper products containing postconsumer recycled-content materials wherever possible will stimulate the market for your recycled paper.

Compostable substitutes for traditional plastic products generally come in two types. One type of product is made from plant materials such as wheat starch and feature a seal of approval from the Biodegradable Products Institute (www.bpiworld.org). These degrade just like food and paper during composting. A second type is made from traditional oil-based plastics with special chemical agents added to cause the plastic to more rapidly degrade in a compost environment. Be sure to check with your composter to see which types and brands of serviceware materials are acceptable before making purchases. For a partial list of product suppliers, see the Board’s website at www.ciwmb.ca.gov/FoodWaste/Compost/Biodegrade.htm.

Of course, using washable kitchen and consumer serviceware will significantly reduce the volume and handling of compostable materials. Some vendors or caterers may request a change in fees or charges for the additional handling of reusable serviceware.

If you must allow use of disposable plastic cups, and you have restricted openings on the lids of your collection container, you will probably get many cups mixed in with the beverage bottles and cans as a contaminant. Ask your recycler whether switching all cups to a single type of recyclable plastic would allow you to recycle them also.

Postconsumer Food

Leftover served food, such as that left on plates, is usually not collected using a ground pick due to health concerns. In a table service or luxury box buffet system, the wait staff either discreetly scrape food waste into a bus tray as they collect plates, or remove the plates to the kitchen for the dish washing staff to scrape before washing. If washable serviceware is used at a takeaway food

service, staff posted at the plate-return site can scrape the food into a separate container before stacking. Food collection and storage need to take local Health Department regulations and the compost facility's materials preferences into account. Glass and metals pose the biggest threat to composting projects. Limited quantities of plastic may or may not be acceptable, so check with your composter.

The use of compostable serviceware and drink cups make collection easy; consumers simply dump the serviceware and food waste together into a collection container. Following a standard check for contamination, the entire load can be sent to compost without further processing.

Mixed serviceware systems, such as a reusable fiberglass tray with disposable plastic cups and compostable paper plates, usually require subsequent processing by a dedicated and highly directed dish washing staff to separate recyclables from non-recyclables. It is not advisable to leave separation up to attendees. They typically do not separate materials well, resulting in high contamination rates. Start with a small trial to see if this system is feasible.

Contamination problems can occur even if garbage and compostables bins are placed next to each other with good signage, so use clear liner bags and staff checks to maintain quality control.

Manure

Zoos, aquariums, racetracks, and fairgrounds can usually find takers for uncontaminated manure and animal bedding at a significantly lower cost than disposal. Paper feed sacks, animal food trimmings, cardboard boxes, and other organic products used in the animal care area may also be acceptable in the mix. Ask your local composter or waste hauler about their product requirements and check with the local health department to determine how frequently the material must be removed from the venue site. Contaminants such as syringe needles, pharmaceutical drug containers, bandages, and all forms of glass in any amount are strictly prohibited and can result in the composter rejecting an entire truckload of material. Always have separate trash containers conveniently located in animal care areas, and clearly mark all collection containers as to what is acceptable. Needles should be properly placed in a sharps container and properly disposed. Continuous training and information for all stable staff and rental stall clients is necessary, and many facilities further enforce compliance with fines or other measures.

Green Waste

Landscape maintenance trimmings can be a major waste material at land-extensive venues such as parks and golf courses. The most cost-effective management practices are those that reduce green waste generation, reuse lawn and shrub trimmings on-site as mulch, and recycle materials to compost. These materials can then be put back on the landscape to reduce the use of fertilizers and other toxic chemicals. Waste reduction practices include the following:

- **Controlled irrigation:** Avoid overgrowth; water just enough to maintain plant health and appearance.
- **Precise fertilization:** Only apply the minimum amounts of necessary plant nutrients.
- **“Grasscycling”:** Leave clippings on the lawn when mowing, returning nutrients to the soil.
- **Selective pruning:** Use techniques that result in less green waste and healthier plants.
- **On-site mulching and composting:** Use shredded trimmings in place of bark, peat moss, and soil amendments.

- **Redesigned landscapes:** Switch to low maintenance, drought-tolerant plants that produce less green waste.

As with other compostables, all forms of glass or toxic materials in any amount are strictly prohibited.

When buying finished compost, be aware that there are no State or federal standards for rating the quality of products. Buyers must perform their own quality assessment or obtain information from the supplier to ensure that the product meets your specific landscaping needs. The Board has a fact sheet to help you match performance needs with product characteristics located at www.ciwmb.ca.gov/Organics/Products/Quality/Needs.htm. All registered members of the California Compost Quality Council have their products tested by independent labs and have agreed to disclose test results to prospective buyers. See www.crra.com/ccqc.

Selecting Equipment and Finding Space for Collecting Recyclables

The ideas listed below will help you in designing your diversion program. It is a good idea to also visit one or more venues or events that have collection programs in place to see how their systems work before designing your own. Check with your venue professional association, community recycling coordinator, or see www.ciwmb.ca.gov/venues to find model programs in your area.

Physical Layout of the Collection System

Use a site map or building plan to select where your recyclables collection cans and storage bins will be located, and trace how the collected materials will move through the facility or grounds to the storage areas. Look for natural barriers to collection routes such as stairs and rough pavement, as well as conflicts with activity schedules, facility use patterns, or crowd movements.

Generally, place a recyclables collection can wherever you have a trash can, and especially at food areas, entrances and exits, ends of exhibit aisles, and in highly visible areas such as in front of stages and attractions. Be sure that it is easy to tell that the trash and recycling cans are for a different purpose by using different colors, can shapes, opening shapes, and signage.

Choosing Collection Containers

There is no one set of container shapes, sizes, materials, or designs that is best. The color and design of trash and recycling containers and signage is often dictated by the décor of the facility. Montgomery County, Maryland, has a useful primer on the different types of collection containers and storage bins, and estimates of what they can hold, at <http://www.montgomerycountymd.gov/swstmpl.asp?url=/content/dpwt/SolidWaste/education/sort/containers.asp>.

Lightly attended areas of the venue site, temporary events, or experimental programs might be well served by less-sturdy but lower-cost collection containers made from materials such as cardboard, double walled sheet plastic, or PVC pipe frames. The Department of Conservation contacts listed in the next section and container suppliers will have examples of lightweight containers.

If the collection cans for waste and recyclables must be all the same, try using different colored lids, signage backgrounds, or lettering to indicate their use. While there are no statewide standard colors for collection cans, many facilities are now using blue to designate recyclables, green for compostables, and black or gray for trash. If most event attendees will be from one community that also has a residential curbside recyclables collection program, those participants may respond better to collection can colors, shapes, and signage they are familiar with from home.

The shape of the recycling container lid opening may help attendees recycle correctly. For beverage bottle and can collection, lids with small openings (about 6 to 9 inches in diameter) will discourage their use as trash cans, but they won't prevent contamination by drink cups. Flaps or other covers over the opening present a more finished appearance. They discourage "basketball" tossing (and the resulting "misses" left on the ground around the collection can), and they discourage human and animal scavengers. However, many people dislike touching a flap for perceived sanitary reasons. This may inhibit recycling or increase contamination, because everything in their hand gets quickly pushed in together. Look for an easy-to-clean surface and space for signage on the lid.

Signage should be easy to read from a distance, as most people will not commit more than a few seconds to selecting the proper container. Exactly describe does and does not go in the collection can. Clear, simple, directive information is more important than fancy design. Wording such as "Metal Cans and Plastic Bottles Only" is better understood than a generic phrase like "Place Recyclables Here." The "chasing arrows" is a customary symbol for recycling but is not sufficient information by itself. Use bilingual signage or graphic depictions if necessary.

Base the size of the recyclables collection can on expected volume generated and the proposed pickup schedule. (If you have not completed a waste audit, records of previous sales or a percentage of current disposal volume at each location can be helpful in making estimates). Full cans of recyclables may attract materials scavengers, discourage additional recycling use, or result in litter around the can. Hence, the collection container should be large enough to be one-half to two-thirds full when serviced. This will also provide a margin for a late or missed pickup. For food waste and other heavy materials, base the container size on a safe weight for the staff members—who will be lifting out the contents—and on the strength limit of the liner bag.

Removable plastic liner bags make it quick and sanitary to service cans in crowded conditions. Using clear bags makes it safer and easy for staff to check the contents for contamination. Bags can then be marked for recycling or further processing. If bags are not used, consider collection cans with wheels to speed removal and reduce the chance of staff injury. Look for bags that are made with recycled-content materials or are compostable.

Some facilities eliminate a separate collection container for cardboard in vendor booths and exhibit areas where space is at a premium. They instead ask vendors to place flattened boxes vertically between the recyclables can and the trash can to keep them organized and out of the way. Other techniques include increasing the frequency of cardboard-only pickups to match generation so it does not accumulate, or placing a single larger cardboard-only container at the end of each vendor row. (If the container is too far away, a vendor may not leave the booth to use it, or may wait until the end of the day).

Where to Find Collection Containers

There are a large number of manufacturers and sellers of recycling collection containers and service carts in all price ranges. The California Integrated Waste Management Board maintains a list of containers made from recycled content at <http://www.ciwmb.ca.gov/RecycleStore/search.asp?VIEW=1&CAT=22>. You can use your Internet search engine (under "recycling containers," for example) or the phone book to locate other choices. Please refer questions about containers and bins directly to the manufacturers or their distributors.

Purchasing a large number of recycling collection containers all at once can be expensive. Before you buy or rent containers, check with your jurisdiction recycling coordinator. Some public works or community parks departments now stock extra recycling containers that they will lend

out for events. Other jurisdictions offer complete event-recycling services (delivery of containers, servicing, and post-event pickup) either for free or as an extra cost add-on to the event permit. You may also be able to borrow, rent, or share the purchase cost of containers with nearby venue facilities if your event schedules are compatible.

A good source of low-cost collection containers for a program on a tight budget is to use recycled industrial shipping drums or barrels made from fiberboard, plastic, or steel. These choices are also useful for collection in remote areas such as parking lots where containers may be subject to accidents, theft, and vandalism. If you do not want to modify the lids on the low cost drums yourself, some commercial bin vendors either offer pre-made replacement lids, or they will fabricate custom lids if the number requested is large enough to justify their set-up costs. For example, Recy-Cal Supplies (www.recy-cal.com/) sells replacement lids with beverage container-sized holes for use on 55-gallon steel drums, and RescueEarth (www.RescueEarth.com/) will fabricate custom lids.

The California Integrated Waste Management Board maintains a surplus materials exchange website at www.ciwmb.ca.gov/CALMAX/ that often features industry listings of surplus shipping drums available for a low cost, or even free. You can search by county, region, part of the state, or statewide. Look under the listing for “containers.” The CalMAX website also has links to locally run exchange sites around the state.

Processing Equipment

If you generate a large amount of recyclables or have a shortage of storage space, you may want to investigate the use of materials processing equipment such as mechanical compactors, balers, crushers, shredders, grinders, and liquid extractors that reduce the volume of the materials in different ways. The units range from small scale, portable units to large size, automated multi-tasking machines. While the equipment can be costly, preprocessing the recyclables may raise their value to a materials buyer. If renting or leasing a machine is an option, you may want to do so before making a purchase to see whether it is the right model for your operation and cost-effective in use.

To see examples of these machines or find a list of suppliers, use an Internet search engine (under “waste baler,” for example), the buyer’s guide section of waste industry magazines such as *Waste Age* (<http://www.wasteagebuyersguide.com/>) or your local phone book.

Assign Duties and Train and Motivate Suppliers, Vendors, and Staff

Once you have your program and materials selected, you and the “green team” must let the implementation staff and your vendor partners know exactly what is expected of them. Their participation is critical to the success of the program. Proper training and motivation means that each person is thinking about waste reduction as part of the corporate mission and their official duties. They must feel personally empowered to make the many tiny adjustments necessary in their area of responsibility that will make the program succeed.

Below is a list of training steps and some tips to evaluate in developing your training program:

Develop Roles and Responsibilities

- Develop clear descriptions of what needs to be done when, where and by whom. Work with the staff expected to carry out the task to be sure it is logical and realistic.
- Make a checklist of duties for each worker on an easy-to-carry card.

- Write waste reduction and recycling tasks into job descriptions and performance evaluations, if possible.
- Check on performance and follow up with employees who make mistakes or fail to follow directions. Use an education approach that will help staff feel more skilled as recyclers.

Motivate Staff

Waste reduction hinges on rethinking the way we do things and changing old habits. Forming new habits is an ongoing process that begins with information. But if a new practice isn't constantly reinforced by a perception that the benefits of change outweigh the costs, the change will likely be temporary. Reinforcing behavior takes time, patience, and persistence.

In a business environment with competing priorities, it is important to make your message stand out. The right visual impressions can actually be stronger than words:

- Develop a catchy logo and slogan for your program.
- Show staff how much waste is being disposed and diverted using photos, charts, and graphics.
- Present training materials and signs in all major languages spoken by the staff, and use graphics to reach those who don't read well.
- Place posters in staff meeting and locker rooms and where staff picks up tools and equipment.

Facts should be relevant and easy to understand. A startling fact can help motivate a person to seek change:

- Explain why it is important to stop wasting resources. Where possible, present benefits in terms of cost savings, resources saved, customer satisfaction, and corporate and personal responsibility towards future generations.
- Keep the message and direction simple and clear; avoid being redundant or boring.
- Use startling facts—such as relating the weight or cubic yards to what the staff person already knows (for example, we generate enough waste to cover the parking lot 5 feet deep).
- Don't assume that staff is familiar with key waste reduction words or concepts.
- Avoid giving too much information at once; give information in manageable pieces.

Including line employees in the decision-making process will help ensure participation and increase the chance for success. Ask the work staff for their input on how to best implement the program and reward them for good ideas.

In addition to distributing or posting written educational materials, where feasible, present information person-to-person:

- Seek volunteers in each work area who are willing to be trained as “waste reduction pros.” The pros provide a friendly and knowledgeable source of information throughout the organization. And they can provide feedback on how you are doing.
- Build waste reduction into the training of all new employees. Let them know they are expected to use resources carefully and fully participate in waste reduction programs. Explain the basics of how to prevent waste and recycle materials.

- Use all-employee gatherings to promote waste reduction. Give feedback, obtain progress reports, and show what is being done well and what could be improved.

Provide information, recognition, and excitement to motivate employees:

- Graph progress and show people how they are doing by division, floor or other unit.
- Create a contest and award prizes or humorous trophies (reused, of course).
- Financially reward employees for ideas that generate significant cost savings and waste reduction.
- Recognize employees' waste reduction efforts in front of others.

Set a good example:

- To help make new practices believable, be sure to practice what you preach.
- If using promotional giveaways or prizes, make sure they exemplify waste reduction (for example, a coffee mug with your program's slogan, a refillable pen made from recycled plastic). Don't give away premiums or materials that will end up in the trash.
- Distribute information in the least wasteful way. Send messages electronically, if that option is available. Route messages or post them on a central bulletin board. Print or copy using both sides of the page, and format documents so there isn't excessive white space.
- Ask employees to bring their own plate or mug to gatherings where food and beverages will be served.

Educate Event Attendees and the Community

Getting cooperation in waste reduction and recycling from the event attendees is not as hard as you might think. Many of the guests already recycle at home or school and may be actively looking for opportunities to properly recycle their cups and bottles at your site. First-time visitors will be looking for cues on how to "fit in" as a fan or event participant. Promoting waste reduction and recycling as part of the "culture" of the event and providing clear directions to visitors on waste reduction opportunities are key to encouraging attendee participation in your program. Here are some ideas venues and events staff can use.

Pre-Event

- Develop a simple theme that relates the team or event to responsible environmental behavior or the "official" facility policy. It could be something like "The Hawks recycle!" or "Civic Arena is a zero waste zone." Or, consider bringing in an environmental or social charity partner to use as a publicity theme and receive revenues from the sale of the recyclables.
- Tie event promotions into community environmental celebration days like Earth Day and Keep America Beautiful Day and to environmentally oriented groups like the Girl Scouts.
- Put recycling information as a feature on the event website, print locations of recycling stations on the site map, and place simplified instruction in ticket packages and event programs. Put downloadable recycling theme drawings and puzzles with the team or event logo onto the event website, or distribute copies free to local schools for children to color.
- Recycling education banners and posters may get lost in the visual noise of the other colorful advertising signage. If you want to use them, try "face on" locations such as the front of the

entertainment stages, and areas where visitors are less distracted by event activities, such as the ticket booth, front gate, and restrooms lines.

- Use recycling as a theme for event and press promotions. For example, allow free admission for children if they bring a pound of crushed aluminum drink cans from home, or make an original drawing of how to reduce waste. Or, make the event into a contest and try for a new recycling record at the site.
- Give away colorful stickers to children that deputize them as a “recycling monitor” for their family or group. Ask for volunteers from a community service group to act as recycling ambassadors and help educate attendees.
- Ask product suppliers such as beverage companies to print fun directive messages such as “Please Recycle Me” on their cups and other serviceware.

During the Event

- Inform guests about your “green event” from the podium or on the address system, and ask for their help in making it a success by recycling right.
- Put recycling service staff in distinctive colored hats or t-shirts with identifying logos.
- Have vendors and concessionaires display “Please recycle” signs in their booths.
- Invite a cartoon character such as “Recycle Rex” to roam the grounds or participate in halftime entertainment. Contact the Department of Conservation Division of Recycling to schedule an appearance by this environmental mascot.
- Inform patrons through a recycling information booth that answers questions on how and where to recycle materials. Booth staff can show vendors where to get help.
- Near the end of the event, announce the estimated amount of waste attendees saved from going into the landfill. Show waste diverted in pounds, number of containers, or other easy-to-understand measure.

Post-Event

- When sending thank-you notes or newsletters to clients, donors, and sponsors, include the total amount of waste diverted as an accomplishment of the event
- Build morale and personalize the work of your event volunteers and/or staff by dividing the total of event waste diverted to get a pounds-per-worker figure or other suitable measure. Post a chart showing improvement in the diversion from event to event.

Review, Revise, and Report Progress

Get feedback from your recycling staff, vendors, other outside partners, and your waste and recyclables haulers soon after each event while memories are fresh. Make it clear that you want an honest evaluation of progress. Allowing the responses to be anonymous may make people more willing to give constructive criticism. Invite comments and criticisms by asking open-ended questions such as:

- What worked as planned? What didn’t and why not?
- What can be done to improve future performance?

Also ask for specific performance measures such as:

- What was the level of recyclable materials contamination?
- At what times were recycling cans too full?
- What areas of the facility were over- or under-serviced for pickups?
- Did environmentally friendly materials and practices substituted work as needed?

Based on your review:

- Frankly rate the overall performance of each program and make notes on areas that need improvement.
- Revise your programs and schedules as needed.
- Make a summary report to management including:
 1. Program accomplishments in relation to goals.
 2. Program costs and savings in relation to original estimates.
 3. Actions taken for program improvement.
 4. Work with your public relations coordinator to release suitable results to the community.

Don't forget to take time to celebrate your success and thank the vendors, "green team," venue/event staff, volunteers, and others that made it possible.

Annual Plan Evaluation

At least once a year, work with your green team to review the original waste reduction plan for possible revisions to the programs, work priorities, and timeline for program expansion. Following are some issues to consider:

- Changes in business conditions, operations, waste flow processes, or purchasing policies that may have affected the waste survey data or choice of program.
- Determine if management, staff, business partners, and the public are getting the information they need.
- Additional materials and operations could be added to the waste reduction program in the next year.

Publicize and Market Your Success to the Community

Recognition of waste reduction performance:

- Include total amounts diverted and donated to charity in your press releases, corporate website, and annual reports to show that your organization is a responsible member of the community.
- If you are a private business, apply for a WRAP business waste reduction award. See www.ciwmb.ca.gov/WRAP/ for details.
- Apply for local environmental awards and civic commendations based on the percent of reduction in your waste.

- Offer your waste reduction program as a model to your parent corporation, national organization, or professional association.
- As a company, participate in and sponsor community and local school recycling events.
- Write an article on your waste reduction experience for your industry newsletter or magazine.

Market to New Customers

- Include company environmental goals and waste reduction accomplishments in facility and event marketing brochures.
- Target potential clients in environmental groups and corporations having environmental policy statements by showing how your diversion programs meet their internal goals.
- Estimate savings to potential clients based on lower waste reduction costs compared to venues without programs, or their events held at your facility in previous years.
- Offer to share or donate revenues from event-generated recyclables with the client's favorite charity, and let them announce the estimated results during the event.

Conclusion

This manual has discussed the value of waste reduction and why it is a sound business practice. It has given you an understanding of the basic problems, choices, decision criteria, equipment, and methods used in reducing solid waste disposal. Finally, it has shown you how to use your success in “greening” your business to enhance your reputation among customers and the community.

Now it is up to you to put these practices into use. Talk to your local peers or professional association to learn what ideas have worked in your local area or type of venue. Form a committee at your venue to discuss what is possible. Or, just jump in and commit to starting at least one new program in the coming year.

Changes are occurring in all industries in the way waste is handled. Increasingly tighter ordinances and regulations can be expected for venue facilities and events regarding the need to reduce waste, recycle, and compost. By acting now, you will become more efficient in waste management and gain a step on the competition

Glossary of Terms

You may find these terms used in this document or in related websites.

Baler—A machine used to compact recyclables into bundles to reduce volume. Paper products, corrugated cardboard, plastics, and aluminum and steel cans are commonly baled.

Bi-Metal Container—Any metal container that contains at least two different metals such as a steel-bodied can with an aluminum top.

Boxboard—Paper product used for office supply, cereal, cracker and shoeboxes, usually made from mixed waste paper. Not to be confused with corrugated cardboard.

CIWMB—California Integrated Waste Management Board, a State agency.

Commingling—The mixing of different recyclable materials in one container during collection.

Compactor—A machine used to compress materials to a smaller volume.

Composting—The controlled process whereby organic materials are biologically broken down and converted into a stabilized humus material for use as a soil additive in farming or landscaping.

Construction and Demolition Waste—Any waste resulting from construction, remodeling, repair, or demolition operations on pavement, buildings, or other structures. Wastes include lumber, drywall, concrete, pipe, brick, glass, electrical wire, and rubble.

Contaminant—A material that is harmful or undesirable to the recycling process when it is included with a recyclable material.

Corrugated Cardboard—Also known as cardboard box, and commonly used as a shipping container. Paper product made of unbleached kraft fiber, with two heavy outer layers and a wavy inner layer to provide strength.

CRV—California Redemption Value, a returnable deposit on beverage containers.

Cullet—Container glass that has been sorted, crushed, and cleaned for glass factory furnaces to be manufactured into new containers.

Diversion Rate—The amount of all materials recycled as a percentage of all materials produced.

DOC—California Department of Conservation, a State agency.

Environmentally Preferred Purchasing (EPP)—A source reduction strategy used by purchasing managers to select products that create the least amount of waste and toxicity.

Ferrous Metals—Scrap metal containing iron (such as steel) in sufficient quantities to allow for magnetic separation.

Food Waste—Vegetable and animal food wastes resulting from food preparation, storage, or serving activities.

Generator—An individual, company, organization, or activity that produces wastes or recyclable materials.

Green Waste—Waste consisting of vegetative matter resulting from landscaping, maintenance, and land clearing operations, such as leaves, grass clippings, brush, and tree trimmings.

Hauler—A company that collects garbage and/or recyclable materials.

Hazardous Waste—Material requiring special precaution in its use, collection, storage, transportation, treatment, or disposal to prevent injury to human health or the environment. Includes flammable, corrosive, ignitable, reactive, toxic, radioactive, volatile, and pathological materials.

HDPE—High-density polyethylene, or #2 plastic resin used for the manufacture of milk jugs, laundry product containers, margarine and butter tubs, and some plastic bags.

Mixed Paper—Types of paper that are not included in the high-grade category, such as envelopes, manila folders, junk mail, greeting cards, wrapping paper, glossy inserts, catalogs, and magazines.

Non-Ferrous Metal—Scrap metal that a magnet will not attract, such as aluminum, copper, lead, zinc, brass, precious metals, and other alloys.

OCC—Old corrugated cardboard.

Pallet—A platform placed underneath large items so they may be picked up and moved by a forklift.

PET—Polyethylene terephthalate, or #1 plastic. Clear plastic resin used in the manufacture of soda and liquor bottles, and some food containers, such as peanut butter jars.

Postconsumer Waste—Materials generated after the sale of a product to retail customers such as the weekly household trash.

Preconsumer Waste—Scrap from industrial and manufacturing processes generated previous to initial sale of a product. May also include wholesale packaging waste from retail businesses.

Processing—Operations performed to make recyclable materials more marketable. Processing may include sorting, baling, grinding, chipping, or crushing.

Pull Fee—The hauler’s charge for collecting and transporting waste to a waste disposal facility.

Recycled Content—The part of a product that has been manufactured using preconsumer or postconsumer recycled material.

Recycling—The process by which materials otherwise destined for disposal are collected, processed, and resold for use as feedstock in manufacturing.

Renderer—A specialized recycler who handles used fry grease, fat trimmings, meat scraps, and bones.

Reuse—The use of a product more than once in its same form for the same or similar purpose.

Roll-Off—A special truck that deposits and picks up a 10-to-50-cubic yard container at a site.

Source Reduction—Strategies that reduce the total amount and/or toxicity of the materials that become waste. Also referred to as “waste prevention.”

Source Separation—The process of segregating various materials by type at the point of generation in order to manage them through recycling, composting or other waste handling system.

Waste Exchange—An organization or network with web and/or print listings to match companies or individuals that want to buy, sell, give away, or exchange materials that would otherwise be disposed.

Waste Generation—Waste materials produced—usually determined by assessing the waste bin on-site. Waste disposed plus waste diverted from landfill equals waste generation.

Waste Prevention—See “Source Reduction.”

Waste Survey—An on-site assessment of waste from an individual business, industry, institution, or household and the materials in that waste with potential for recycling or diversion from landfill.

White Goods—Large appliances such as refrigerators, stoves, water heaters, washers, dryers, and air conditioners that are made of enameled metal.

Appendix A: Sample Waste Reduction Policy for Concessionaires and Exhibitors

The Del Mar Fair uses a version of this policy sent to vendors

In an effort to address environmental concerns, reduce waste-related expenses, and promote an environmental ethic to the public, this facility maintains a policy of mandatory waste reduction and recycling for all exhibitors, vendors, and concessionaires. Violators of this policy will be fined \$100 per incident for not recycling the products as specified below. Continued violation of the policy can be grounds for revoking your facility use permit, rental agreement, or contract.

Cans and Bottles

Please empty your aluminum cans, glass bottles, and plastic beverage containers and place them in the designated recycling receptacles provided for public use located throughout the facility.

Cardboard

Please flatten all corrugated boxes and keep them in your vendor area for pickup by facility staff, or place them in any bin marked “Cardboard.” Do not place them in public view or in walkways. Non-corrugated cardboard (thin cardboard) can be flattened and recycled in the mixed paper bins (see below). Food contaminated cardboard is not recyclable and should be kept to a minimum.

Mixed Paper

Clean dry newspapers, flattened non-corrugated cardboard (thin cardboard) boxes, programs, magazines, flyers, and other paper can be recycled in any bin marked “Mixed Paper” or left in a separate corrugated box for pickup by facility staff. Do not place them in public view or in walkways. Plastic-coated, metal-coated, or food-contaminated paper is not recyclable.

Food Waste

Any fruit or vegetable food waste must be placed in the containers marked “Composting Only” for pickup by facility staff. Meat bones and fats are NOT compostable. Please contact the Concessions Office to schedule the collection of deep-fry grease and donations of reusable unserved food to charity. Food for donation should be stored safely for end-of-day pickup by the food bank volunteer. Food donation may be tax deductible, so save your receipts. The food bank volunteer determines what is acceptable material.

Plastics

Small-necked plastic beverage bottles can be recycled with cans and glass in the designated recycling receptacles throughout the site. The distribution or sale of food/drinks using non-recyclable plastic containers, cups, plates and utensils is prohibited. Several companies offer alternative food service products that are reusable, recyclable, or compostable. Please contact the Concessions Office for a list of suppliers.

In Addition

When purchasing supplies for use at this facility, please look for products made from recycled-content materials. The Concessions Office has free information on “buying recycled.”

This facility and your customers appreciate your help in meeting our waste reduction goal and conserving the resources of our community.

Appendix B: Selected State Laws and Regulations Governing Solid Waste Reduction

AB 2176 (Montanez, Chapter 879, Statutes of 2004)

This law requires the largest venue facilities and events (as defined) in each city and county to plan and implement solid waste diversion programs, and annually report the progress of those upon the request of their local government. In turn, local jurisdictions must report to the CIWMB waste diversion information for the top 10 percent of venues and events by waste generation.

A large event is defined as:

1. Serves an average of more than 2,000 individuals per day of operation (both people attending the event and those working at it—including volunteers—are included in this number); and
2. Charges an admission price or is run by a local agency.

The bill specifically includes public, nonprofit, or privately owned parks, parking lots, golf courses, street systems, or other open space when being used for an event, including, but not limited to, a sporting event or a flea market in addition to events that meet both of the above.

A large venue is defined as:

- A permanent facility that annually seats or serves an average of more than 2,000 individuals within the grounds of the facility per day of operation (both people attending the event and those working at it—including volunteers too—are included in this number).

Venues include, but are not limited to airports, amphitheaters, amusement parks, aquariums, arenas, conference or civic centers, fairgrounds, museums, halls, horse tracks, performing arts centers, racetracks, stadiums, theaters, zoos, and other public attraction facilities.

For additional information on AB 2176, see www.ciwmb.ca.gov/Venues/Mandates/Default.htm. For the full text of AB 2176, see http://www.leginfo.ca.gov/pub/03-04/bill/asm/ab_2151-2200/ab_2176_bill_20040929_chaptered.html.

Public Resources Code (PRC) Section 42911

PRC Section 42911 (<http://www.leginfo.ca.gov/cgi-bin/waisgate?WAISdocID=6589805979+0+0+0&WAIAction=retrieve>) requires that local jurisdictions mandate adequate areas for collection and loading of recyclable materials in all development projects initiated after 1993. The definition of “development project”, which can be found at <http://www.leginfo.ca.gov/cgi-bin/waisgate?WAISdocID=6590646771+0+0+0&WAIAction=retrieve>, includes any of the following:

- (1) A project for which a building permit will be required for a commercial, industrial, or institutional building, marina, or residential building having five or more living units, where solid waste is collected and loaded and any residential project where solid waste is collected and loaded in a location serving five or more units.

- (2) Any new public facility where solid waste is collected and loaded and any improvements for areas of a public facility used for collecting and loading solid waste.

The definition of development project is not specific to, but does include development projects at venue and event facilities. The law states that local agencies shall not issue a building permit to a development project unless the development project provides adequate areas for collecting and loading recyclable materials. Additional information about this issue can be found at <http://www.ciwmb.ca.gov/Publications/default.asp?pubid=832>.

AB 75 (Strom-Martin, Chapter 764, Statutes of 1999)

This law mandates that State agencies and large State facilities (such as State Agricultural Association fairgrounds, State Parks, and State Colleges) must divert 50 percent of their solid waste from landfills. State agencies are also required by Executive order and Administrative Codes to purchase products made with recycled-content materials and other “environmentally preferred” products. The waste reduction goals for State agencies and large State facilities are to:

- Divert at least 50 percent of their solid waste from landfills or transformation facilities on and after January 1, 2004, through source reduction, recycling, and composting activities.
- Develop and adopt an integrated waste management plan by July 1, 2000.
- Submit an adopted integrated waste management plan to the California Integrated Waste Management Board (Board) by July 15, 2000.
- Designate at least one solid waste reduction and recycling coordinator to oversee the implementation of their integrated waste management plan and in-house waste reduction and recycling program.
- Report on the previous year’s diversion amounts and activities by April 1 of each year.

Additional information about waste reduction at State agencies, and links to legislation and regulations, is available at www.ciwmb.ca.gov/LGCentral/Basics/StAgRecy.htm.

Information about Executive Orders for State agency purchase of recycled-content products is available at www.ciwmb.ca.gov/BuyRecycled/StateAgency/Requires.htm. This site also links to advice on buying recycled-content products and lists of recycled-content product suppliers.

California Integrated Waste Management Act of 1989 (IWMA)

The IWMA requires that all local jurisdictions achieve a 50 percent reduction in the solid waste generated in their communities that is disposed in landfills; and maintain that reduction rate into the future even as their population and economies grow. Jurisdictions choose their own waste reduction programs, targeted at local materials and waste generators, that will best lead them to the goal. The waste reduction goals for local jurisdictions can be found in the Public Resources Code:

41780. (a) Each city or county source reduction and recycling element shall include an implementation schedule that shows both of the following:

For the initial element, the city or county shall divert 25 percent of all solid waste from landfill disposal or transformation by January 1, 1995, through source reduction, recycling, and composting activities.

Except as provided in Sections 41783, 41784, and 41785, for the first and each subsequent revision of the element, the city or county shall divert 50 percent of all solid waste on and after January 1, 2000, through source reduction, recycling, and composting activities.

(b) Nothing in this part prohibits a city or county from implementing source reduction, recycling, and composting activities designed to exceed these requirements.

Additional citations can be found at <http://www.leginfo.ca.gov/cgi-bin/calawquery?codesection=prc&codebody=41780&hits=20>.

Appendix C: Conducting a Waste Survey

Do You Need a Consultant?

Contracting out a technical process like a waste survey can make financial sense if your waste or physical facility is large or complex. However, you may miss the opportunity to interact directly with the persons generating the waste and discussing diversion opportunities and options. The following are some criteria to help you decide how much data you need, and whether you want to do the work yourself:

- What kind of questions do you need to answer? For example: what is the level of potential contamination observed in the samples: clean, easy to separate, food- and liquid-stained, broken glass, etc.?
- What level of accuracy will you need? For example: do you want to look at the waste by individual generator (concessions, maintenance, etc) at each of their locations, or by material (glass, paper, etc.) all consolidated together at the final disposal storage bin?
- How large is your physical layout and how diverse is your waste generation?
- Do you need samples from all generators or just the biggest or targeted ones?
- How much detail in material categories do you really need to determine whether a program is possible? For example, just a single category of glass, or bottle glass separated by color?
- Data access issues: for example, if a subcontractor hauls his own waste, can you get access to it to measure it?
- Time, labor, and cost issues—perhaps the most important limiting factor is your budget for doing the study.
- Health and safety issues, such as staff exposure to hazardous waste, broken glass, etc.

If you decide to hire a consultant to do your waste survey, check with other venues in your area, your local waste hauler, and professional recycling societies such as www.crra.com to find contacts for consultants.

If you select to do your own waste survey, the California Integrated Waste Management Board has sample processes and tools available that were developed for the California 1999 Statewide Waste Composition Study, including:

- Health and safety guidelines (www.ciwmb.ca.gov/WasteChar/HowTo/HealthGuide.htm)

- Waste survey and sorting procedures (www.ciwmb.ca.gov/WasteChar/HowTo/SortingProc.htm)
- Definitions of standard material types (www.ciwmb.ca.gov/WasteChar/MatDefs.htm)
- A model waste analysis form for recording waste analysis data (in Excel format) (<http://www.ciwmb.ca.gov/Venues/Analysis/>)

Measuring Waste Reduction

There is no standard method of measuring waste reduction; however, the United States Environmental Protection Agency uses the following formula: “Reduction equals (waste diversion) divided by (waste disposal, plus waste diversion).”

For example, if waste prevention diverts 3,000 pounds of material, recycling diverts 4,000 pounds and the remaining waste disposal is 5,000 pounds; then waste reduction is calculated as 3,000 pounds plus 4,000 pounds (7,000), divided by 5,000 pounds plus 7,000 pounds (12,000), or a 58 percent diversion of the total waste generated.

It is sometimes hard to measure waste prevention precisely, so some venues do not include it in their formula but estimate it separately (for example, a 44 percent recycling rate, plus another estimated 14 percent in waste prevention and reuse).

Appendix D: Waste Reduction and Recycling Ideas

General Office/Event Administration

- Print on both sides for all correspondence, copying, and printing can reduce paper use by 30 to 40 percent. Reuse the unprinted backsides of paper for notes and scrap paper.
- Buy recycled-content office paper (preferably postconsumer) and specify it for all print jobs. Look for recycled content when purchasing other products and supplies. Specify products made from materials that are recyclable or compostable at the end of their use.
- Allow postcard or paperless e-mail/web event registration/reservations.
- Reduce format size of event programs and catalogs.
- Give low-waste promotional prizes and awards to attendees and staff, such as reusable mugs.
- Promote waste reduction/recycling as a feature of the event in the event announcement and program. Give basic “how-to-recycle” instructions in the program and indicate the location of recycling stations on the event site map.
- Make announcements from the stage/podium reminding attendees to recycle.

Purchasing and Contracting

- Include the price of the product’s estimated waste handling and disposal costs when contemplating purchases. This does not have to be an exact per-unit charge, just a simple estimate of labor and fees. Including these costs may change your view on what is really the best buy.

- Investigate whether a waste-hauling contract based on weight might be less expensive than one based on volume.
- Request that suppliers take back containers and packaging for reuse. Pass the costs for waste handling back to the vendors, suppliers, service providers, and subcontractors who produce waste at your site. Offer discounts to those who document lower waste generation, participate in recycling, or remove their own wastes from the site.
- Use cost savings from waste reduction activities to subsidize purchases of more durable, reusable, repairable, recyclable, and recycled-content products.
- Purchase products without packaging or less packaging. Buy supplies in bulk. This reduces the amount of packaging and may also lower the price per unit.
- Consult web listings of environmentally preferred products such as www.ciwmb.ca.gov/RCP/.
- Choose battery-powered equipment that uses rechargeable batteries.
- Look for and offer used products on the Board's CalMax materials exchange website at www.ciwmb.ca.gov/CalMAX/.
- Check with your recyclables hauler to find out which materials actually have a market. Items are only recyclable if there is a local market.

Kitchen, Food, and Beverage

- Lower costs and prevent waste by not automatically supplying a straw, lid, napkin, and packaged condiments to each patron. Those who really want the items can pick them up from a side stand or request them at purchase. If you do offer straws and condiments, use health department-approved dispensers rather than pre-wrapped straws and condiment packets.
- Sell a souvenir or commemorative cup suitable for taking home; offer a discount for same-day refills in the same cup to make the cost attractive. An alternative to serving drinks in cups that are often not recyclable is to serve plastic beverage bottles, or other CRV deposit containers, eliminating the need for lids and straws entirely while speeding up the vending process and shortening waiting lines.
- Switch to biodegradable paper, wood, or cornstarch-based plates, bowls, cups, serviceware, and takeout containers; see your local compost processor for their product preferences.
- Use washable/reusable tableware, serviceware, and glasses to reduce waste even more. For outdoor events, charge a plate/fork deposit for reusable tableware and let the members of a charity or youth organization provide plate pickup and return service as a fundraiser.
- Use washable table linens, napkins, and cleaning towels rather than paper products. If you must use paper, look for products with a minimum 20 percent postconsumer recycled content and compost them after use.
- Buy concentrated bar mixes and purchase milk and wine in bulk dispenser boxes to reduce packaging waste and speed serving.
- Offer bar drinks on reusable bar coasters instead of paper napkins. A coaster with a sponsor's logo on it may pay for itself or even be a revenue source.
- Use hollow stir sticks for bar beverages instead of the solid style to reduce waste.

- Redesign or modify menus towards more “finger foods” that require only a napkin or light paper wrapper to serve, eliminating the cost of plates and forks. French fries, salads, and other items can be served in “food in food” edible containers such as pocket bread, tortilla wraps, ice cream cones, and hollowed out rolls.
- Rethink garnishes and side dishes. Is that pickle/radish/parsley really noticed or eaten by the consumer?
- Examine hourly or daily production against sales to minimize over prepping and unserved food waste.
- Buy pre-trimmed food to reduce kitchen trim waste and cut the cost of food preparation labor. Consider buying shelled eggs in bulk if your ingredient usage is three or more cases per week.
- Arrange ahead of time to donate unserved food and surplus food supplies to food banks and homeless shelters.
- Compost unservable food, food-contaminated paper, and floral centerpieces and decorations. For any decorations that are still fresh, donate them to a senior citizen home or hospital.
- Use a rendering pickup service for your recyclable fat trimmings and oils.

Facility Operations and Maintenance

- Install air hand dryers in restrooms to eliminate paper towel waste.
- Purchase cleaning supplies in bulk and in concentrate form.
- Send lawn trimmings for composting or use a mulching lawn mower and leave grass cuttings on lawns (this reduces waste and decreases the need for fertilizer, since the clippings act as a natural fertilizer).
- Use multipurpose cleaners that can be used for all types of surfaces rather than cleaners that are job-specific. Whenever possible, use cleaning agents that are less hazardous or non-hazardous.
- Use plastic trash can liners made with recycled-content plastic.
- Switch to more durable tools and equipment. For example, plastic pallets can last 10 times longer than wooden ones. If you must use wood pallets, repair them as necessary and reuse them, or chip broken pallets for mulch.
- Trade in older but still-usable products and equipment, or sell them through a business classified ad or waste exchange website. Give or sell products at a discount to employees, or donate them to a charity such as schools, housing programs, thrift shops, homeless shelters, food banks, or churches for a tax donation. Charities are happy to receive a wide variety of items; don’t rule anything out before you ask if they have a need for it.
- Name a high profile charity “partner” to work with and share revenue. Doing so can often increase visitor participation in the waste reduction program as well as the program’s public visibility.
- Recycle unused brochures, programs, and catalogs. If you have significant quantities of these types of printed materials, adjust future orders to better match your needs.

- Compost manures, animal bedding, and paper feed bags.
- Chip woody plant trimmings for landscape mulch or send to a compost processor.

Facility Rehabilitation/Construction

- Use green and sustainable building practices. See www.ciwmb.ca.gov/GreenBuilding/ for more ideas.
- When undertaking remodeling or construction projects, evaluate your waste reduction program for infrastructure improvements that can easily be incorporated to make your program easier.
- Grind and reuse demolished cement, asphalt, and brick on-site.
- Put recycling/composting in contract requirements.
- Look for recycled-content building materials such as rugs/carpet, plastic lumber, furniture, and fixtures.
- Use recycled tire grindings and shreds as underlayment for sport fields and walkways, or use as plant mulch.

Appendix E: Resources

The California Integrated Waste Management Board's venues and events website (www.ciwmb.ca.gov/Venues/) has many resource links listed by material types.

Information on Specific Materials

- To search for information on various materials see <http://www.ciwmb.ca.gov/Index/default.asp?VW=3>.
- You can find the location of a beverage container-recycling center near you at <http://www.bottlesandcans.com/where.php>.
- To find a food bank, contact The California Association of Food Banks at www.cafoodbanks.org, or call (916) 321-4435. See www.ciwmb.ca.gov/Organics/ for more information about food and green waste.
- Motor oil recycling sites are available at www.recycleoil.org and <http://www.ciwmb.ca.gov/UsedOil/>.
- Possible donation sites for miscellaneous materials such as surplus furniture, paint, and cleaning supplies includes your local school system, goodwill, or other thrift store charity, or a local or regional "waste exchange" website. Waste exchanges provide free listings for those who have materials to recycle, and those who are seeking materials. The statewide waste exchange www.ciwmb.ca.gov/CalMAX/ also has links to local community exchanges.

Procurement

- The U.S. Environmental Protection Agency (U.S. EPA) has comprehensive procurement guidelines that recommend recycled-content levels for various materials at www.epa.gov/cpg.

- The California Integrated Waste Management Board maintains Recyclestore, a showcase for recycled content products that lists thousands of recycled products as well as manufacturers and distributors, at www.ciwmb.ca.gov/RecycleStore/.
- The City of Seattle has established criteria for selecting less-toxic janitorial products at www.ci.seattle.wa.us/environment/Documents/JanitorialCriteria.pdf, and a list of available products at www.ci.seattle.wa.us/environment/Documents/cleaningproducts.pdf.

Construction and Demolition

- The California Integrated Waste Management Board has a Green Building website that provides recommendations on material use and a directory of environmentally beneficial products at www.ciwmb.ca.gov/GreenBuilding/.
- The California Integrated Waste Management Board has an information site about reuse of Construction and Demolition Materials at www.ciwmb.ca.gov/ConDemo/.
- The City of Santa Monica offers a free overview and description of green building design and construction at www.greenbuildings.santa-monica.org/introduction/introduction.html.
- The Alameda County Waste Management Authority offers a free green building resource database of more than 600 green building materials and products selected specifically for their usefulness to the design and building professions, rather than merely their green material content, at www.greenguide.com/exchange/index.html.
- Two commercial sites offer extensive lists of “green building” products at www.oikos.com/products, and at www.greenspec.com. These sites may involve fees or subscriptions.

Appendix F: Policy Statements

Qualities of a Good Policy Statement

- Be a high priority for the organization.
- Be expressed as a measurable goal.
- Cover all relevant operations, products, services, contractors, and suppliers.
- Include all aspects of waste management—reduce, reuse, recycle, buy recycled content.
- Promote environmental education of employees, customers, and the community.
- Be based on a continuous process of improvement.

Below is some sample language adapted from policy statements made by a number of different companies and organizations. Use them as a starting point for developing your own draft policy to present to management.

- We recognize that conducting our operations in an environmentally sound manner is among our highest corporate priorities and a responsibility owed to our customers and the communities in which we do business.

- We will incorporate environmental consideration into our business planning process by assessing solid waste impacts before starting a new activity or project, and before leaving a facility or site.
- We will design our products, services, and operations for optimal environmental safety, recyclability, and reusability, and promote the adoption of waste reduction principles among our suppliers and subcontractors by requiring improvements in their practices to make them consistent with those of our enterprise.
- Any solid wastes that cannot be prevented, reused, or recycled will be disposed of safely and responsibly.
- We will educate, train, and motivate our employees to conduct their activities in an environmentally responsible manner, and make environmental responsibility and innovation a guideline for measuring employee performance.
- We will periodically conduct formal reviews of our activities to assure compliance with environmental regulations and internal procedures; and report results to our investors and the public.
- We will promote sound environmental practices within our industry, including the sharing of experience with others and the continued support of research and development in environmental improvement.

A waste reduction or overall environmental policy statement need not be long or complex to be meaningful. For example, the award-winning Delaware North Company developed the following declaration of commitment to cover all its park service management operations:

“Delaware North Parks Services (DNPS) is fortunate to manage concession operations, lodging, retail and other facilities in and near national and state parks and at other tourist destinations. In recognition of the responsibilities that come with operating in these unique locations, some designated as national treasures; DNPS is committed to responsible stewardship of the resources in all locales in which we operate. GreenPath, an environmental management system, has been established to guide us in achieving our commitment to environmental excellence.

All DNPS operations will be managed in compliance with laws and regulations related to environmental quality and human health and safety. DNPS acknowledges that it is essential to the environment that all operations and activities of the company be conducted in strict accordance with sound environmental, health, and safety practices. DNPS is committed to build from a foundation of compliance with the aim of continually improving environmental performance. To achieve this goal, DNPS will adopt best available practices in environmental matters.

Specifically, DNPS shall:

- Incorporate environmental considerations into business decisions, including planning and design activities.
- Set measurable objectives to improve environmental performance.
- Reduce where practicable the generation, discharge and emission of wastes to all environmental media—air, land, surface water, and groundwater.
- Anticipate emerging environmental issues and develop programs to respond to future requirements.

- Allocate and maintain resources for the effective implementation of environmental management and compliance programs.
- Encourage communication among employees, visitors, neighbors and surrounding communities, suppliers, customers, regulatory agencies and the general public regarding the environmental issues of DNPS.
- DNPS will strive to make a positive environmental contribution to the communities where we operate.

Every DNPS employee and contractor has an obligation to comply with all applicable environmental laws and regulations and other DNPS requirements. Employee training will include a review of this policy and all applicable elements of GreenPath, our Environmental Management System.”

Appendix G: Peer Networking

One of the best ways for you to learn about waste reduction is from other venues and events. The CIWMB is building a network of venue and event managers and operators that are willing to exchange information about their waste reduction successes and challenges. Please share what you've learned or being listed so others can help you overcome challenges through what they've learned from their own experiences. Even if you can only fill in your contact information and a description of your venue or event, or your program is just starting, your willingness to network with others is valuable in and of itself and we'd still like to hear from you.

Date: _____

Name of venue or event:

Venue/event website: _____

Short description of venue or event: _____

Contact (name, title, address, phone, e-mail): _____

Name of promoter or sponsoring organization: _____

Annual number of operating days: _____

Annual number of attendees: _____

Major types of waste generated: _____

Materials targeted for waste reduction and recycling: _____

Methods used to reduce waste (for example, collection containers, grounds pickup, etc.):

Approximate quantity of materials reduced or recycled (in tons, cubic yards, etc.): _____

Approximate quantity of materials disposed (for example, in tons, cubic yards, etc.):

Approximate savings from disposal costs, purchasing, etc. due to reduction program (for example, total dollars, percentage of total costs): _____

Lessons learned or advice for other venue operators:

Waste reduction challenges you face:

Please e-mail your completed form to dkustic@ciwmb.ca.gov

Or mail your form to:

Debra Kustic
Venues and Events Waste Reduction (MS 23)
California Integrated Waste Management Board
PO Box 4025
Sacramento, CA 95812-4025