

## **Reduce, Reuse, Recycle**

Millions of tons of waste are generated each year with consumer use. Reducing and reusing materials can reduce waste disposal costs and save natural resources by cutting down on raw material extraction and processing. Recycling turns materials that would otherwise become waste, into valuable resources. Recycling reduces the need for landfilling and incineration, prevents pollution, saves energy, decreases greenhouse gas emissions, conserves natural resources, helps the economy, and sustains the environment. There are three steps to recycling, which include collecting, sorting and processing the recyclables into raw materials, manufacturing those raw materials into new products, and finally, purchasing those recycled products. This creates a continuum that ensures success and value of recycling. The largest producers of municipal solid waste are paper, food scraps, yard trimmings, packaging and containers.

Sports facilities are huge creators of waste. The Beijing Olympics alone were expected to produce 14,000 tons of trash during sporting events. University of Tennessee reported generating 15 tons of waste for each college football game, and Ohio State reported generating close to 23 tons of waste for a single college football game. Professional and college sports across the nation and world are putting forth efforts to reduce material use and recycle what they can to reduce the amount of waste entering landfills. The target areas for increasing recycling initiatives at sports venues include concessionaires, parking lots and tailgating, post-event stadium bleachers, hallways, restrooms, and other public areas.

Concessionaires can play a large part in helping with recycling and can control a lot of waste generated. Many discard tons of corrugated cardboard, which is one of the easiest products to recycle. In parking areas, tailgates produce huge amounts of waste, much of which is bottles and cans. Collection bags and bins in these areas can significantly cut down on this type of waste. After the event, packaging and containers are left in the bleachers. Although labor intensive, this is one of the most efficient ways to recover recyclable materials. Recycling bins should be located in convenient areas within the stadium so they are easily accessible to fans. Education and promotion are key elements to a successful recycling program.

<http://www.epa.gov/osw/consERVE/rrr/index.htm>

<http://www.epa.gov/epawaste/consERVE/rrr/rogo/venues/stadiums.htm>

### **Successful Recycling Programs at Sports Facilities:**

University of Tennessee's Neyland Stadium has a program in place that recycles plastic cups, water bottles, and cardboard inside the stadium. Tailgating areas recycle plastic bottles, aluminum cans, and newspapers. The stadium is currently able to recycle 15 percent of the 15 tons of waste it generates per game. The recycling program saves University of Tennessee about \$3,500 in trash hauling costs per season.

The Seattle Mariners recycle food waste, paper, cardboard, glass, metal and plastic, which keeps 226 tons of waste out of the landfill and saves \$26,000 in disposal costs. Food and other compostable waste are collected from concession and kitchen areas and recycled through Cedar Grove Composting, an organic waste recycling company that has partnered with the Mariners. Through their partnership, 100 tons of recyclable organics have been diverted from landfills, resulting in the prevention of 93 tons of carbon dioxide from being released into the environment. Cedar Grove uses these organic wastes, such as grass, leaves, yard trimmings, food waste and wood

waste, to develop nutrient rich compost. This compost is then used to grow healthy plants and gardens throughout the region, locally closing the recycling loop.

The Mariners also use biodegradable, compostable food containers for serving in the concession areas. The plastic bowls, plates and utensils that are used contain less plastic by volume, which also reduces waste. Paper products in all bathrooms are elemental chlorine free and made from 40 percent post-consumer fiber. Through all of these efforts, the Seattle Mariners expect to continue to be able to recycle at least 25 percent of its waste each year.

The Oakland-Alameda County Coliseum faced challenges in its recycling initiatives. There was a high cost of hand-sorting recyclables from the garbage, contamination in cardboard recycling, high turnover in cleanup crews, tight event schedules, and lots of food packaging waste. Many of these problems were solved with the help of StopWaste, a technical assistance service dedicated to improving the environment. The stadium switched to cornstarch-based compostable cups and expanded recycling collection to include food waste. The stadium also put a lot of effort into training the cleanup crews. Post game, the crews hand-sort everything and divide recyclables into bottles and cans, compostables, and garbage. This has eliminated 200 tons of organics, and 400 tons of total recyclables from entering landfills. This saves the stadium \$40,000 a year in disposal costs.

To reduce their environmental impact, the Philadelphia Phillies recycle glass, plastic, cardboard, paper, fluorescent lamps, lighting ballasts, and aluminum. In concession areas, carry-out trays are 100 percent post-consumer fiber, serviceware and cups are biodegradable, and much of the packaging is compostable. Recycling containers are placed throughout the ballpark to aid fans in recycling efforts.

The Phillies have also implemented a “Red Goes Green Team,” which features volunteers from local colleges and community organizations that collect recyclable materials from the seating area throughout each game. Fans are made aware of these individuals so they can take part in recycling efforts.

The New York Mets are in the process of building a new stadium. During its construction and operation, builders will use at least 2 million pounds of recycled coal combustion products instead of newly manufactured portland cement. Coal combustion products are ash and other materials left over after a power plant burns coal. This will save the release of carbon dioxide, landfill space, and energy. Also, approximately 95 percent of the 12,500 tons of structural steel being used to construct Citi Field will be recycled. Compared to making steel from unused, natural materials, recycled steel will save money and reduce energy consumption.

<http://www.epa.gov/osw/conserves/rrr/rogo/documents/ut508.pdf>

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

[http://seattle.mariners.mlb.com/news/press\\_releases/press\\_release.jsp?ymd=20080418&content\\_id=2547364&vkey=pr\\_sea&fext=.jsp&c\\_id=sea](http://seattle.mariners.mlb.com/news/press_releases/press_release.jsp?ymd=20080418&content_id=2547364&vkey=pr_sea&fext=.jsp&c_id=sea)

<http://www.resourceventure.org/case-studies/success-stories/seattle-mariners>

[http://seattle.mariners.mlb.com/news/press\\_releases/press\\_release.jsp?ymd=20080418&content\\_id=2547364&vkey=pr\\_sea&fext=.jsp&c\\_id=sea](http://seattle.mariners.mlb.com/news/press_releases/press_release.jsp?ymd=20080418&content_id=2547364&vkey=pr_sea&fext=.jsp&c_id=sea)

[http://www.stopwaste.org/docs/coliseum\\_3-20-07.pdf](http://www.stopwaste.org/docs/coliseum_3-20-07.pdf)

[http://philadelphia.phillies.mlb.com/news/press\\_releases/press\\_release.jsp?ymd=20080430&content\\_id=2614303&vkey=pr\\_phi&fext=.jsp&c\\_id=phi](http://philadelphia.phillies.mlb.com/news/press_releases/press_release.jsp?ymd=20080430&content_id=2614303&vkey=pr_phi&fext=.jsp&c_id=phi)

## **Additional Efforts and Official Team Websites:**

### **RecycleMania**

RecycleMania is a friendly competition for college and university recycling programs to promote waste reduction activities to campus communities. Over a ten week period, schools report recycling and trash data which are then ranked according to who collects the largest amount of recyclables per capita, the largest amount of total recyclables, the least amount of trash per capita, or have the highest recycling rate. With each week's reports and rankings, participating schools watch how their results fluctuate against other schools and use this to rally their campus communities to reduce and recycle more. The goals of RecycleMania are to increase recycling and awareness of waste generated by schools.

Colleges and universities consume large amounts of resources and generate large amounts of solid waste. RecycleMania provides a tool for campus recycling coordinators, student green teams and facility service professionals to engage the campus community in recycling and waste reduction in a fun and friendly way. Participation in the competition familiarizes students with a campus's environmental programs and hopefully instills in them a lifelong habit. Past surveys have indicated 80 percent of participating schools experienced a noticeable increase in recycling collection during the competition.

For more information, please visit: <http://www.recyclemaniacs.org/index.htm>

### **Rock and Wrap it Up!**

The New York Jets have partnered with Rock and Wrap it Up!, a national nonprofit organization whose mission is to feed all those who hunger using safely recovered edible leftover food from arenas where major concerts and sporting events occur.

The objective is to eliminate hunger, thereby reducing poverty. Leftover food from stadium events that has been prepared, but not served, is picked up by Rock and Wrap it Up! volunteers and delivered to a local food shelter where it can feed the hungry. Since Rock and Wrap it Up! began in 1990, more than 15 million pounds of food have been picked up, feeding over 30 million people.

<http://www.newyorkjets.com/community/article/show/272-jets-sports-wrap->

[Recycling and Trash Collection at Colorado Rockies Coors Field in Denver, CO \(PDF\)](#) (3 pp, 164K, [About PDF](#))

Pittsburgh Pirates, Official "Let's Go Green" page:

[http://pittsburgh.pirates.mlb.com/pit/community/go\\_green.jsp](http://pittsburgh.pirates.mlb.com/pit/community/go_green.jsp)

Philadelphia Eagles:

<http://www.philadelphiaeagles.com/gogreen/>