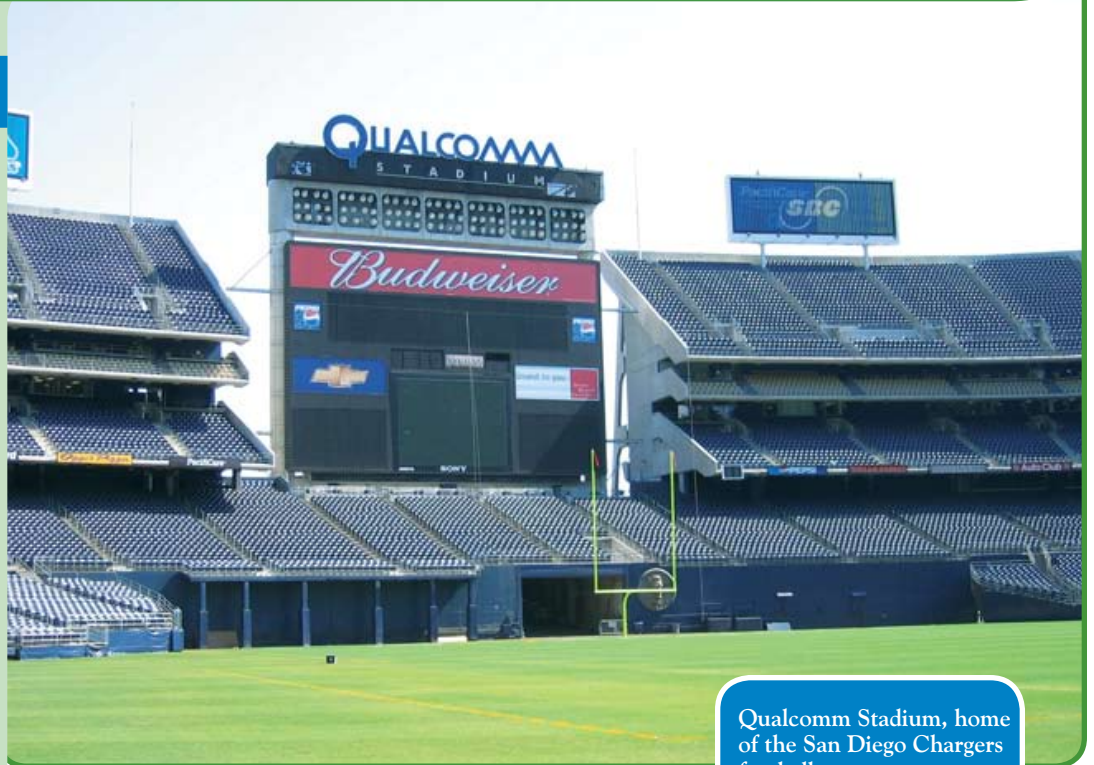


Qualcomm Stadium's Recycling Program

Qualcomm Stadium, home of the San Diego Chargers football team, has been recycling for almost 18 years. The stadium even has donated its sod to local YMCAs and Boys and Girls Clubs of America to use on their playing fields. From bins placed in the parking lots for tailgating fans to an innovative partnership with a nonprofit organization that provides workers to collect the recyclables, the stadium demonstrates a commitment to growing its recycling program as well as improving the community.

Facts at a Glance

- Qualcomm Stadium has the second largest parking lot in the NFL (166 acres with 18,500 parking spaces).
- The stadium's seating capacity is 71,500.
- Urban Corps of San Diego County, a nonprofit organization to employ at-risk youth, provides low-cost labor for the recycling program.
- Three hundred and fifty 94-gallon bins are placed in the tailgating area. At least 50 permanent concrete containers will be placed in the lower concourse level of the stadium when funding is obtained.



Qualcomm Stadium, home of the San Diego Chargers football team.

Program Overview

Owned and operated by the City of San Diego, Qualcomm Stadium has undergone numerous renovations since it was constructed in 1967, and today offers a seating capacity of 71,500. Each year the stadium hosts eleven Chargers games, six San Diego State University games, the Holiday and Poinsettia Bowl games, and one high school football championship. The average audience is about 50,000 fans for Chargers games and 15,000 fans for university football games. The stadium also hosts other major events such as the Monster Jam, Supercross, and the Street Scene concert, which typically take place between August and December. Each year, more than 100 smaller events take advantage of the stadium's enormous parking lot, which hosts car shows and fills the need for overflow parking during marathons and other events in downtown San Diego.

During the 2006 football season, the stadium collected more than 65 tons of recyclables—up from 38 tons in 2005, representing a 58 percent increase. These figures do not reflect



the significant amounts of recyclable materials collected by outside parties, or the materials recycled by Centerplate, the stadium's food and beverage vendor, which include approximately 16 tons of cardboard.

Nuts and Bolts

Qualcomm Stadium's program currently involves recycling in the following locations: the "bowl" (the seating area within the stadium); concourse; apron/entrance gates; vending areas; bars, restaurants, and luxury suites; parking lots; and administrative offices.

Material Generation by Location

Location	Material
Bowl, concourse, apron/entrance gates	Beverage containers (plastic, aluminum, glass), plastic cups, and paper
Vending areas	Cardboard, beverage containers, and plastic cups
Bars, restaurants, and luxury suites	Glass, cardboard, beverage containers, and plastic cups—mostly bottles in this area
Parking lots	Beverage containers
Administrative offices	Paper, beverage containers

Partnership With Urban Corps. In 1999, the stadium partnered with Urban Corps of San Diego County, a nonprofit organization that works to educate and train at-risk youth in the San Diego area, to provide most of the labor for the recycling program. Urban Corps was founded in 1989 to address the growing problem of young adults who had dropped out of high school without jobs or job training. Another goal was to meet the need for public lands conservation and community service. Urban Corps gives youth a second chance to obtain a high school diploma through its onsite charter school and to receive a modest paycheck while working and receiving job training in Urban Corps' environmental or conservation departments.

Today, Urban Corps workers collect all the trash and recyclables in the bowl area and parking lots using golf carts with open-well trailers. The workers use walkie-talkies to tell the drivers when bins are full and ready to be picked up. Urban Corps uses side-loader recycling trucks to collect and empty the bins, and then hauls the materials to a local recycling facility. The recycler provides monthly reports indicating how much material was recycled by weight, and Urban Corps retains the money generated from the recyclables to fund programs that will assist the young adults in finding career paths. According to Sam Duran, chief executive officer of Urban Corps, revenue from the materials recycled in 2006 was about \$10,000.

Collection Logistics. To collect recyclable plastic bottles discarded by the fans in the bowl area, approximately 35 Urban Corps workers go through the seating sections after an event



After each game, Urban Corps teams go through the seating area, row by row, simultaneously collecting beverage containers and trash.

to pick up trash and separate the recyclables. The “bowl pick” after a Chargers game typically generates about 500 pounds of plastic bottles. Based on sales figures for water, soda, and beer sold, the stadium estimates that Urban Corps workers recover about 75 percent of the plastic bottles.

Qualcomm Stadium has the second largest parking lot in the National Football League (NFL), covering 166 acres with 18,500 parking spaces. To encourage recycling among tailgating fans, the stadium placed more than 350 recycling bins in the sidewalk area surrounding the parking lot, near the turnstiles, and in central locations, such as near light posts and garbage cans.

Recycling bins in the parking lot are used to collect plastic, aluminum, and glass beverage containers. So far, the stadium has had mixed success with recycling in the parking lot due to contamination (when visitors place trash in recycling bins) and scavenging (when homeless individuals or other “unauthorized” collectors pick out the recyclables). Stadium officials are discussing options to improve the signage and receptacles and may create “convenience stations,” featuring portable toilets, recycling bins, garbage cans, and containers to collect hot coals from barbeque grills, throughout the parking lot. Another potential solution is to distribute recycling bags to tailgaters as they enter the site to encourage them to separate their recyclables. Urban Corps staff could then roam the parking lot in trucks to pick up the full recycling bags and distribute new ones as necessary.

Before the game, Urban Corps staff members circulate through the parking lot collecting beverage containers from fans.



Because the stadium does not allow fans to bring their own food or beverages into the stadium, recycling bins placed by the entrance gates collect significant amounts of recyclables (mostly plastic bottles and aluminum cans) with relatively low rates of contamination. Also, scavenging is less of a problem at the gates than in the parking lots, because these bins fill up quickly and are emptied regularly.

The vending areas generate a high volume of cardboard from the packaging of food, beverages, disposable cutlery, and other associated items. Employees of Centerplate do most of the work baling the cardboard and then contact the recycling company to collect and haul the cardboard offsite for recycling. Centerplate recycles approximately 16 tons of cardboard during a 12-month period.

Glass, plastic, and aluminum containers generated in the luxury suites, bar/lounges, and restaurants also are recycled. The luxury suites each have their own recycling bins, and Centerplate’s hosts and waitstaff are trained to put recyclables in the appropriate bins. Unused food is donated to a local food bank.

In the administrative offices, employees recycle office paper, newspaper, and beverage containers. Qualcomm Stadium staff is responsible for collecting recyclables in the administrative offices.

Challenges and Solutions

Challenge: Funding the recycling program was a challenge.

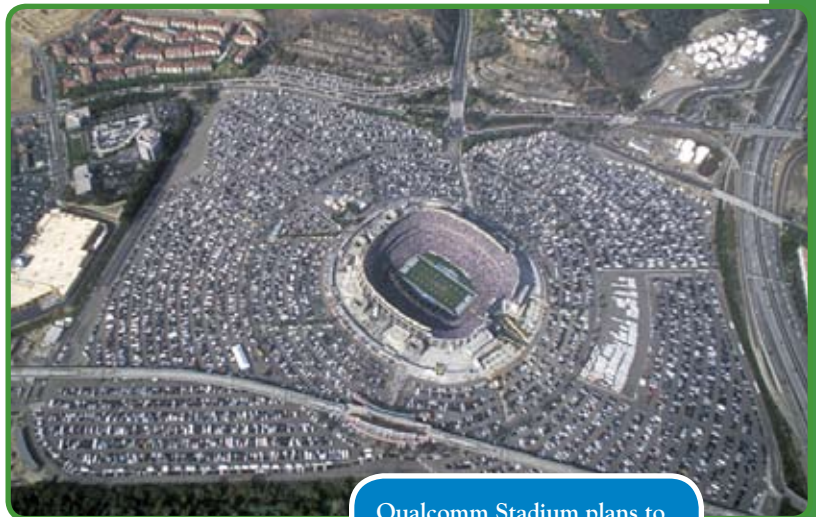
Solution: Stadium officials applied for a grant through the California Department of Conservation to help cover the cost of purchasing the permanent recycling bins installed in the bowl area and to offset the cost of labor for collecting the recyclables. The permanent bins look like regular concrete trash containers but have the recycling logo and a different top and cost \$500 each. Qualcomm pays Urban Corps approximately \$84,000 for about 10,000 labor hours to collect trash and recyclables at the stadium each football season. The stadium also provides approximately 30,000 to 40,000 square feet of space to store the recycling containers used in the parking lots.

Challenge: The stadium has experienced contamination problems, where visitors were using the recycling bins for trash instead of recycling.

Solution: Stadium officials intend to place convenience stations at each of the 125 lamp posts spread throughout the parking lot where fans can drop off their garbage and recyclables. With new, clearly marked recycling bins, fans will be able to see the difference between trash and recyclables and be encouraged to take a more active role in the process. The stadium is pursuing sponsors, including tenants, vendors, and advertisers to help achieve this goal.

Challenge: The stadium had trouble with “scavengers” or “unauthorized collectors” dumping garbage cans on the ground and rummaging through the trash looking for recyclables.

Solution: Stadium officials are working with their waste hauler to provide 3-cubic-yard bins that should minimize or eliminate the scavenging problem. Another important strategy is eliminating the source; that is, having Urban Corps’ army of workers regularly empty the bins so the recyclables do not sit unattended for long periods of time.



Qualcomm Stadium plans to expand recycling in the site's vast parking lots.

Recycling Results, 2005 and 2006 Football Seasons

Material*	2005 Collection (in Pounds)	2006 Collection (in Pounds)
Aluminum cans	1,294	4,626
Glass	61,699	47,871 ^a
HDPE plastic	4,656	400 ^b
PET plastic	4,432	30,738 ^c
Miscellaneous plastic (e.g., souvenir cups)	0	4,690 ^d
Tin	2,615	118 ^e
Paper	1,801	42,633 ^f
Cardboard	0	40
Total	76,497	131,116

*These figures include only the recyclables collected by Urban Corps from 16 games; they do not reflect cardboard recycled by the concessionaire or materials collected by scavengers.

^a Part of the reason for the drop in glass collected between 2005 and 2006 is due to the city passing an ordinance prohibiting bringing glass into the parking lots.

^b The drop in HDPE plastic recovered is due to a switch by vendors to products sold in PET packaging, especially for bottled juices.

^c The jump in PET plastic is due to vendors selling more products packaged in PET and a prohibition against the sale of beverages in glass containers.

^d In 2006, the stadium began recycling the plastic souvenir Chargers cups left by fans inside the bowl area.

^e Tailgaters are bringing more “prepared” food and fewer tin cans that require preparation into the tailgating areas.

^f The large increase in the volume of paper reported is due to increased collection of placard board (mixed paper) during the bowl pick.

Reasons for Success

Pooling funds and seeking mutually beneficial partnering opportunities with city departments and community organizations proved key to making the stadium’s recycling program viable. Recycling at Chargers games decreases garbage hauling expenses for Qualcomm Stadium and improves the longevity of regional landfills. In addition, EPA estimates that Qualcomm Stadium’s reported recycling efforts in 2006 saved the equivalent of more than 23,000 gallons of gasoline or 460 barrels of oil. (This number would be even higher if it included the recycling of materials collected by scavengers.)

Qualcomm Stadium officials list the following factors as essential to the success of their recycling program:

- Gaining support from top management. The following key “players” and decision-makers were involved in launching the stadium’s recycling program: general manager of the stadium, a lead staff member from the city, a manager from Urban Corps, and a management-level staff member representing the vendors.
- Seeking financial support from the city government and education support from city staff.
- Establishing partnerships with community organizations such as Urban Corps.
- Providing ongoing recycling education to vendors as well as current and new staff (Qualcomm Stadium and Urban Corps).
- Placing conveniently located bins and using consistent branding (blue recycling containers with eye-level signage).

Tips for Success

- Keep it simple. Qualcomm Stadium uses blue recycling bins to make them stand out from garbage cans. Establish consistency in the bins, the signage, and placement of the bins to help “brand” the organization’s recycling program.
- Place recycling bins close to where the materials are generated to make it easy for fans, vendors, and workers to use and access them.
- Provide space for recycling activities on the property, including storage space for housing collapsible bins when not in use.
- Choose the appropriate types of bins for the setting. Consider factors including color, size, durability, maneuverability, and signage/labeling needs.
- Work with waste/recycling haulers to modify their contracts to create an incentive for recycling and ensure that they report recycling volumes or weights.



United States
Environmental Protection
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www.epa.gov/recycleonthego

Future Forecast

Bin Signage and Placement. In fiscal year 2008, stadium officials plan to improve signage for trash and recycling containers, offer clearly marked recycling stations, and create more organized “convenience stations” for handling recyclables.

Education and Outreach. The stadium plans to launch a public relations campaign designed to publicize its recycling success and launch new programs that will require greater public support, such as distributing recycling bags to visitors and promoting greater participation from the fans. In addition, the stadium is considering creating public service announcements with the Chargers to better educate visitors about recycling and ultimately increase recycling rates. Also, the stadium is developing new signage that will be funded by the city’s Environmental Services Department.

Innovation and Program Expansion. Stadium officials are exploring the feasibility of collecting and recycling the plastic (polypropylene) caps removed during every transaction for water and soda purchases. This and other ideas will be discussed with the stadium’s recycling and concessionaire vendors.

Unsorted material collected from Qualcomm Stadium’s tailgating area. Ongoing educational efforts aim to improve fan participation in the recycling program.



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