

SAFECO FIELD, HOME OF THE SEATTLE MARINERS



BALLPARK STATS

Location: Seattle, Washington

Began Construction: March 8, 1997

Opened: July 15, 1999

Seating Capacity: 47,860

Owner: Washington-King County Stadium Authority

Operator: Baseball Club of Seattle LP

Venue Uses: MLB games, amateur baseball events, collegiate football events, and corporate and political events

Construction Cost: \$722 million (in 2012 dollars)

THE MARINERS' GREENING STORY: MOTIVATIONS, CHALLENGES AND LESSONS FROM THE FIELD

The Seattle Mariners have been leading the environmental charge in stadium operations ever since Scott Jenkins, vice president of ballpark operations, joined the team midseason in 2006 and immediately set out to make the stadium's operations more efficient. Since then, the Mariners have saved nearly \$1.5 million in energy costs, and Safeco Field boasts the lowest energy intensity of all the Major League Baseball stadiums that participate in EPA's EnergyStar program. Jenkins and the Mariners are founding members of the Green Sports Alliance and have received numerous awards for Safeco Field's environmental initiatives, including the Washington Green 50 Special Leadership Award given by Seattle Business magazine in 2011.

"IT'S AN OPPORTUNITY TO REDUCE YOUR COSTS, GREEN YOUR BRAND AND REDUCE YOUR ENVIRONMENTAL IMPACT. THOSE ARE THE THREE BIG REASONS I THINK WE SHOULD BE DOING THIS; WHY [THE MARINERS] ARE; AND WHY WE'RE GETTING SUPPORT AT THE LEAGUE LEVEL, THE EXECUTIVE LEVEL, THE OWNERSHIP LEVEL, FROM THE STAFF AND FROM THE FANS," says Scott Jenkins, Mariners vice president of ballpark operations.

WHY GO GREEN?

In the simplest terms, "Greening is good for the bottom line," says Jenkins. But beyond just cost savings, the Mariners see greening as a business opportunity that supports a triple bottom line. "It's an opportunity to drive financial performance, reduce your costs and green your brand, which gives you the ability to sell to more people and build a deeper relationship with your customer," Jenkins explains. "Reducing your environmental impact is an opportunity to do the right thing as a business." Jenkins adds that greening in professional sports is coming to be expected by fans: "A growing segment of the population is interested and concerned about sustainability, so I see the trajectory of green as growing rather dramatically."

WHERE TO START?

The Mariners' environmental initiatives began when Jenkins arrived in 2006. Fortunately for the Mariners, Jenkins brought a wealth of greening knowledge and experience from his tenure with the Philadelphia Eagles, where he worked directly with NRDC to address the environmental impacts of the team and stadium operations starting in 2003. Jenkins and his operations team began by identifying the biggest environmental impacts at the stadium, and which of these impacts the ballpark had the most influence over. "By doing a carbon footprint analysis it became really apparent that the biggest issues around events were fan travel—the guests coming to and from our stadium—and the energy and water we consumed at our buildings," Jenkins says. By targeting areas with the biggest cost savings opportunities, Jenkins and his team were able to make the business case for environmental initiatives at the stadium. "Right away, the areas we could work on were energy conservation and water conservation, which definitely have bottom-line benefits."

Developing a baseline of their current performance was vital for the Mariners. Jenkins explains, “Here in Seattle, the one really key component was having metrics to be able to understand how you were performing over time and set some goals for improving that. Fortunately we had a good history of data for the life of the building—we could go back month by month to see what we consumed and what we sent to the landfill. So we really started with that base knowledge of how we performed in the past, business-as-usual, and what we thought we could accomplish in a new way of doing business.”

Looking at this baseline data, Jenkins and the operations team decided to focus on areas where they had the most control and where the biggest savings opportunities were—which were primarily in energy use. Jenkins wanted to find out how much was being spent on utilities and to set a new low standard for energy consumption. Making the financial argument went hand in hand with reducing consumption. “I challenged the engineering staff by saying, ‘Look, we’re going to try to save \$100,000 over the next year and here’s how we’re going to do it. First of all, we all need to realize what we spend on a daily basis on gas and electric energy in this building.’

“It turned out we were spending more than \$4,000 a day on energy and water. I said, ‘Imagine if every day you went home from work and went to your mailbox and there was a utility bill that said you owe \$4,000 today. And then tomorrow you go to the mailbox and get another bill that says you owe \$4,000 today.’ All of a sudden the invisibility of the cost of those things became apparent. This stuff is money.”

By bringing these daily costs to their attention, Jenkins hoped to motivate the operations team to reduce unnecessary energy use. “It might be invisible when the electrons flow and the doors open and the heat goes out,” he says. “But the reality is we’re getting a gigantic bill for that, and if we can be smarter about how we run this, like we run our own houses, we can do some big things.”

This approach has been highly successful. Since 2006, the Mariners have reduced their energy intensity at the ballpark by 25 percent. Initially these gains involved the lowest-hanging fruit. “It was all low-cost, easily achieved things,” Jenkins says, “mostly better use of automation, better discipline in turning things off when they’re not being used, really low-cost stuff like aerators on faucets, weather

STANDOUT GREENING ACCOMPLISHMENTS

- ★ Through numerous energy efficiency efforts, the Mariners saved approximately \$1.5 million in utilities costs (electricity, natural gas, water and sewer) from 2006 to 2011 by reducing natural gas use by 60 percent, electricity use by 30 percent and water use by 25 percent.
- ★ The team replaced its old incandescent bulb scoreboard with a new LED scoreboard, which lowered annual electricity consumption by more than 90 percent (from 1.2 million kilowatt-hours to 130,000 kilowatt-hours) and reduced energy costs by \$50,000 per year.
- ★ Energy initiatives have resulted in an average annual energy savings of \$298,500 per year, with savings as high as \$350,000 per year, compared with expenditures in 2006.
- ★ Energy reductions have reduced carbon dioxide-equivalent emissions by 21.2 million pounds a year.
- ★ The Mariners established zero waste goals, which increased waste diversion rates from 12 percent in 2006 to 81 percent in 2011, saving \$95,000 in landfill costs in 2011 and reducing greenhouse gas emissions by 10.4 million pounds (CO₂-equivalent) from 2006 to 2011.
- ★ The Mariners’ purchasing policies prioritize greener products, including:
 - ★ Hand towels and toilet tissue made from 100 percent recycled fiber with a minimum of 65 percent post-consumer content (pcc)
 - ★ Office paper made from 100 percent pcc recycled fiber
 - ★ 97 percent of all custodial supplies certified by entities such as Green Seal and Ecologo

“DATA COLLECTION ILLUMINATES HOW YOU PERFORM. YOU APPROACH IT COMPLETELY DIFFERENTLY THE MINUTE YOU START TO MEASURE AND KEEP TRACK OF THINGS AND COMPARE YOURSELF TO OTHERS. IN OUR INDUSTRY, IT’S ALL ABOUT STATISTICS AND WHERE YOU ARE IN THE STANDINGS; THAT’S THE CORE MISSION OF OUR BUSINESS ON THE PLAYING FIELD. AND THAT COMPETITIVE NATURE AND THE DESIRE TO KNOW WHERE YOU ARE TRANSLATES TO THE ENVIRONMENTAL SIDE OF THINGS QUITE NATURALLY,” says Jenkins.

Safeco Field Greening Program Awards

- ★ **2011 Recycler of the Year** (Business Generator), Washington State Recycling Association
- ★ **2011 Venue Excellence Award**, International Association of Venue Managers
- ★ **2011 Washington Green 50 Special Leadership Award**, *Seattle Business* magazine

stripping on doors, some upgrades on the controls. And lo and behold, that \$100,000 I wanted to save turned into \$275,000 in the first year.”

Getting to the next level of gains required some outside help. “After the easy [improvements], then we started to do some engineering studies to figure out what we could do if we invested more money and took a look at the infrastructure we had. We subsequently spent about \$1.5 million on a lot of retrofits,” Jenkins notes. These improvements included retrofitting with low-flow urinals (which use 1 pint of water per flush, rather than 1 gallon), recommissioning all HVAC systems, upgrading controls and equipment, and upgrading lights. Despite the higher up-front cost, these retrofits quickly paid for themselves. “You can get payback for some of those investments in as little as two, three or five years,” says Jenkins. “In tough economic times, it sure is nice to know you can invest x amount of money and guarantee your rate of return in a short amount of time and then it’s all gravy after that. Certainly utility rates are not going down, they’re going up, sometimes in double digits, so we’ve really insulated ourselves from future increases in costs by reducing our usage.”

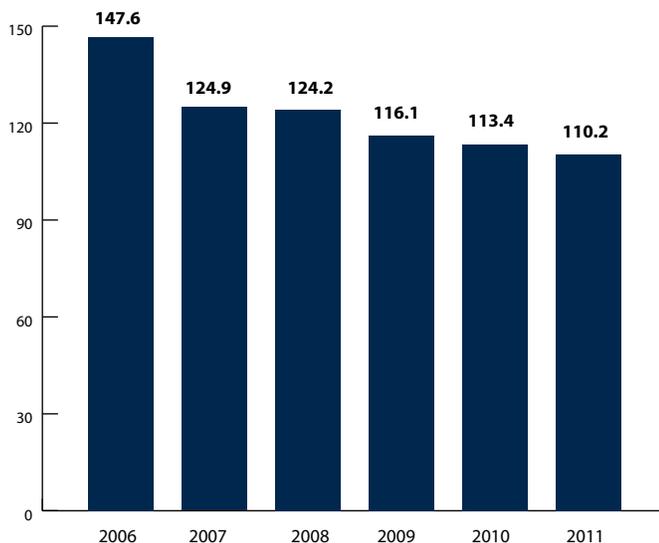
CHALLENGES: OVERCOME AND ONGOING

The next area the Mariners tackled was waste; the stadium’s landfill diversion rate was only 12 percent when Jenkins arrived in 2006. While the initial cost savings from waste diversion were not as high as the savings from the energy initiatives, Jenkins viewed the recycling program as a visible way to connect greening initiatives with the fan community. “The recycling piece of it is big in terms of engagement with the fan, so that’s a natural place to start the conversation with your customers and employees. It’s one of the few things that everybody participates in,” he explains.

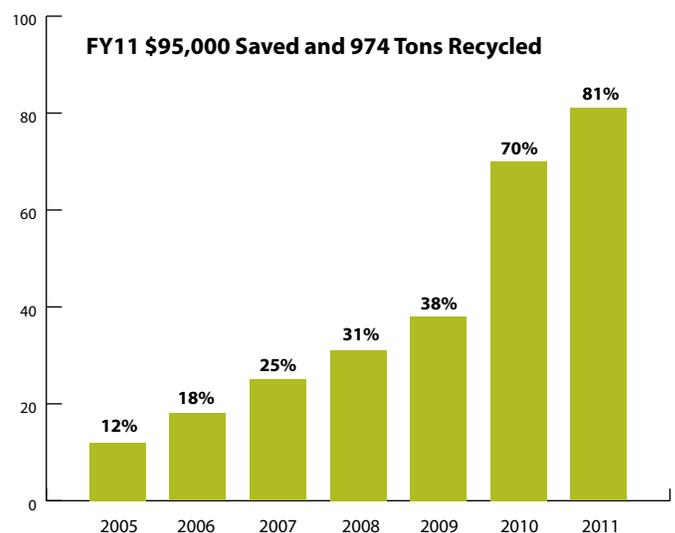
The Mariners now boast an impressive diversion rate of 81 percent, but it wasn’t easy getting there. Steadily increasing recycling containers, training staff, and sorting post-collection still left the team’s diversion rate hovering around 38 percent in 2009. Jenkins recalls admiring the achievements of other teams (including the San Francisco Giants, whose recycling program was diverting around 85 percent of stadium waste), but Safeco Field had separate bins for compost, trash and recycling that all had to be hand-sorted after a game. “I thought, I just can’t justify that much cost in labor to sort. But if I manage the supply chain side of it, I don’t have to do that much sorting,” says Jenkins.

One key solution to the sorting problem was to switch food and beverage packaging and serviceware entirely to compostable or recyclable products and get rid of the garbage bins altogether. “We decided to control our own destiny and do it from the supply side, making sure that most of our serviceware is compostable. So we basically took the garbage away so fans no longer have that option. They have the choice of a compost bin and a bin for bottles and cans. If I don’t have a landfill container for them, they can’t put compostables or recyclables in it, so I don’t have to sort it out. I like to think we’ve kind of outsmarted people a little bit.”

Safeco Field Weather Normalized Energy Use Intensity
kBtu/Sq. Ft.



Annual Recycling Rate



After making the switch to compostable products, the Mariners' diversion rate quickly jumped to more than 70 percent. But there were a few hitches along the way. "The first year that we switched to getting rid of 'landfill containers' on the concourse, our Pepsi cup was lined with plastic, and our pizza box had a cellophane window in it, so two years ago we had to sort out every Pepsi cup and pizza box—and you can't imagine how many of those you sell at a ballpark in a year," Jenkins recounts. It was a learning process. "We didn't have the supply chain set up right yet—we were at a 71 percent recycling rate, but every cup and box we had to sort out and send to the landfill."

By 2011, Jenkins had solved some of these problems by working directly with the vendors, which brought Safeco's recycling rate up to its current level of 81 percent. But the Mariners still are aiming higher: "Our goal is to get to 90 percent recycling. A few years ago, 90 percent of our waste went to the landfill. So we're completely flipping our waste stream on its head."

A few items are still posing challenges for the Mariners in achieving their goal of a 90 percent recycling rate. "It's largely packaging and things that are in the wrong spot. The hard things we have now are the individual packets of condiments and the pre-packaged items—like a candy bar [wrapper] or a potato chip bag or a packet of ketchup or tartar sauce," Jenkins explains. "All that stuff is not easily recyclable or compostable for us, so it ends up as contamination in our compost stream. We're working with our vendors to figure out better packaging or better ways to serve the products to our guests that reduce packaging and convert what packaging we do need over to compostable."

Jenkins is confident that sorting out these remaining items will get the Mariners to their recycling goal. "Now that we're down to a relatively small percentage of waste that's going to the landfill, we're starting to sort it because there is a good

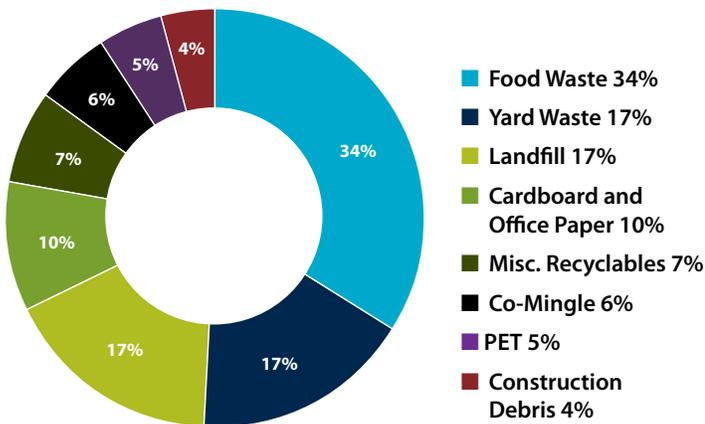
share of that waste that is just in the wrong place. And if we sort it and [remove] half of that stuff from the landfill-bound stream that's in the wrong place and recycle it, we'll jump from 81 percent to 90 percent."

Of course, making the switch to entirely compostable serviceware was not an easy feat, Jenkins explains. "But that's been a story where things are getting better. Initially with compostable products you didn't have a lot to choose from, and it was fairly expensive. You do have to be careful because you really can't spend more on these items, and the performance characteristics can be different—they are more susceptible to heat. But those things are getting much better now as people are starting to buy more of it. The marketplace has reacted; there are more suppliers, more types that you can buy, and the cost is coming down. There will be a point where it's financially irrelevant whether you buy petroleum-based products or compostable ones."

The Mariners have been working to engage their fans in their zero waste initiatives. One program, begun in 2012, is the BASF Kid Compost Trivia Game, which takes place during 10 Saturday home games of the season. "We basically ask an environmentally themed question at the end of the first inning and encourage fans to visit one of our 16 Zero Waste Stations for information about our zero waste initiative, where we have Camp Fire USA volunteers working to help fans recycle and encourage them to play the game," explains Jenkins. "At the end of the seventh inning, one lucky fan who has texted in the correct answer is awarded a Kindle Fire and an autographed baseball. It's a great program. On the first Sustainable Saturday, we gave away 10,000 kitchen compost catchers branded with Felix Hernandez so fans could collect organic waste at home and place it with their yard waste."

While the waste diversion program at Safeco Field has been a challenging, multiyear process, the financial savings have started to add up considerably: In 2011, the

Recycling and Waste Profile for the Mariners



Organics = 51% (Food Waste + Yard Waste)



“IT TURNED OUT WE WERE SPENDING MORE THAN \$4,000 A DAY ON ENERGY AND WATER,” says Jenkins. **“I SAID, ‘IMAGINE IF EVERY DAY YOU WENT HOME FROM WORK AND WENT TO YOUR MAILBOX AND THERE WAS A UTILITY BILL THAT SAID YOU OWE \$4,000 TODAY. AND THEN TOMORROW YOU GO TO THE MAILBOX AND GET ANOTHER BILL THAT SAYS YOU OWE \$4,000 TODAY.’ ALL OF A SUDDEN THE INVISIBILITY OF THE COST OF THOSE THINGS BECAME APPARENT. THIS STUFF IS MONEY.”**

Mariners saved \$95,000 in avoided landfill costs. While these savings are a direct result of the Mariner’s 81 percent landfill diversion rate, part of the savings does have to do with the local infrastructure in Seattle, Jenkins admits. “In big-population areas it costs a lot to send things to a landfill. We’re lucky it costs less to compost. So there’s an economic incentive for us to divert from landfill to composting. When you look at the value of all the recycling streams we had last year, if we chose to landfill everything, we would have spent nearly \$100,000 more.”

LESSONS FROM THE FIELD

DATA COLLECTION DRIVES PERFORMANCE AND HELPS TARGET YOUR EFFORTS WHERE YOU WILL GET THE MOST BENEFIT:

Keeping consistent data on your facility’s consumption highlights areas for improvement and cost savings, and helps guide your environmental efforts accordingly. “You have to target your efforts on where you’re going to get the benefit,” says Jenkins. “By looking at our data, [we saw that] water, electricity, natural gas and recycling were all really obvious places to start.” Tracking this data will also drive improved performance. “Data collection illuminates how you perform. You approach it completely differently the minute you start to measure and keep track of things and compare yourself to others. In our industry, it’s all about statistics and where you are in the standings; that’s the core mission of our business on the playing field. And that competitive nature and the desire to know where you are translates to the environmental side of things quite naturally.”

GREENING IS AN ONGOING JOURNEY. START SMALL

AND BUILD UP: “I would say the biggest obstacles are that you can’t do it yourself, you can’t force change—it has to evolve, and you have to have a base for it,” says Jenkins. “So you’ve got to start small and count your wins, your little successes along the way, and celebrate those. It’s a journey; it’s not going to happen overnight. And you’ve really got to engage a lot of different stakeholders to make it work.”

GET THE RIGHT PEOPLE INVOLVED FROM YOUR

STAFF: Assembling a core green team of staff from different departments is key to getting environmental initiatives off the ground, according to Jenkins. “You’ve got to build that team of people to get things done, because everyone is so busy and distracted by what they normally do, and this is a whole other thing that you’re layering on that traditionally these organizations have not done in their core business function. You’re fighting for people’s attention and organizational attention.” Finding staff members who are passionate about this work is crucial to developing and sustaining the program. “One of the challenges we have is to get the right help involved because we can’t dedicate staff members full-time for some of these things,” Jenkins explains. “You start picking your dream team by who is it that you need to engage to accomplish that next objective—so the engineering staff, security staff, food service personnel and procurement staff are all key people to work with and play a huge role.” Also, keep in mind that greening work may still be slowly making its way into job descriptions, Jenkins points out. “Everybody is already gainfully employed and working over 40 hours a week in their regular job, so people are doing things where they can within the scope of their normal work and adding a whole new component of sustainability to it from an operational standpoint, or a marketing or PR standpoint.”

RECOGNIZE THE EFFORTS OF YOUR STAFF: “At the end of the day, you’re engaging lots of people all over the ballpark in a common effort, and I think the real plus is the satisfaction they get from knowing they helped us succeed,” says Jenkins. “It comes down to recognition. I think [recognizing staff] is very powerful, because they get that one-to-one pat on the back—‘Hey, that’s a great idea’—and they can feel good about what they do in the larger context of our improving our bottom line and reducing our environmental impact.”



LOOK FOR OPPORTUNITIES TO PARTNER WITH LOCAL COMPANIES AND ORGANIZATIONS: Many sustainability initiatives require up-front investment, and partnering with local companies or organizations can be helpful in sharing some of these costs. “Fortunately in sports we have the ability to partner with other companies in the environmental space, and we’re able to take advantage of these relationships,” says Jenkins. “We’ve gotten help from Seattle Public Utilities, Seattle City Light and McKinstry [a mechanical contractor that specializes in energy projects], and we’ve invested money at times to do the engineering studies in order to find out what projects will give us the best payback. So there’s been a bit of work involved, but we’ve gotten a lot of help from the outside and we’ve supported it financially to seed some of the engineering that needs to be done to figure out what those projects are.”

BE PATIENT: Greening programs won’t be successful overnight. “You have to be willing to try things that fail, learn from them and make adjustments,” Jenkins advises. “When you’re trying to change millions of people’s behavior, it’s very difficult to get the message out. You have to be very

patient and measured in what you expect is going to happen, because it doesn’t happen overnight. Again, I think that’s where it pays to choose your opportunities carefully and start small. Get a little success, get a little wind in your sail. And when you’ve done that and learned from it and figured out a better way to do it, then look for the next opportunity.”

SUSTAINABILITY IS A BUSINESS OPPORTUNITY: “It’s an opportunity to reduce your costs, green your brand and reduce your environmental impact. Those are the three big reasons I think we should be doing this; why [the Mariners] are; and why we’re getting support at the league level, the executive level, the ownership level, from the staff and from the fans,” Jenkins remarks. “There seems to be a lot of momentum around sustainability, but I do also think the biggest selling point is the business case—because that’s what’s really going to drive this to take place with sports and venues. That’s what businesses do. When you can prove the business case for it, you’ve made the initiative sustainable from a business standpoint. And we’re at that point where everyone’s realized this, and everyone’s starting to do things in this space.”