



2024 WM PHOENIX OPEN SUSTAINABILITY REPORT



Many of the choices we make during the planning for the WM Phoenix Open – the most-attended golf tournament in the world – affects our claim to the title of **"THE GREENEST SHOW ON GRASS."**

WM’S SUSTAINABILITY AMBITIONS

Material is **REPURPOSED**

We’re reimagining a circular economy.



Energy is **RENEWABLE**

We’re innovating for climate progress.



Communities are **THRIVING**

We’re empowering people to live sustainably.



The Thunderbirds, WM, and the tournament’s stakeholders coordinate to align with WM’s three sustainability ambitions related to renewable energy, repurposing materials, and thriving communities. We endeavor to use the WM Phoenix Open’s platform to support greenhouse gas (GHG) emissions reduction, sustainable materials management and water management projects in Arizona.¹



ENVIRONMENTAL IMPACT

The WM Phoenix Open is one of the largest zero waste sporting event in the world.² We achieve this by recycling, composting, and donating nearly all the on-site waste. Much of the remainder of the waste becomes fuel for energy usage. This year, we increased our donation efforts of hard-to-recycle construction materials, which led to almost 500,000 pounds of material being recirculated into the local economy. We remain committed to minimizing environmental impacts from tournament activities. The WM Phoenix Open aims to minimize its environmental impact by reducing emissions and decreasing reliance on fossil fuels for energy consumption. Additionally, a portion of the funds raised through the WM Phoenix Open **Working For Tomorrow Fund**SM is intended to be dedicated to supporting renewable energy projects on tribal land.

SOCIAL IMPACT

A key part of the WM Phoenix Open is raising money for causes that benefit communities across Arizona. The Thunderbirds, a philanthropic organization located in Phoenix, AZ, WM, local communities, and tournament vendors and sponsors, coordinate to activate an effective social strategy. The Thunderbirds raised a record \$17.5 million for local charities in 2024, while the tournament generated an estimated \$465+ million in total economic impact. WM and The Thunderbirds also launched the WM Phoenix Open **Working For Tomorrow Fund**SM, raising \$419,000 for energy, water, and food waste minimization initiatives for underserved communities in Arizona. Every year, we continue to use environmental justice mapping tools from the US EPA to advance the WM Phoenix Open’s commitment to supporting local communities in an impactful way.

¹ The data, analysis and claims in this report are exclusive to the WM Phoenix Open and are not part of WM’s corporate sustainability program and reporting.
² As of February 2024, according to UL Solutions.

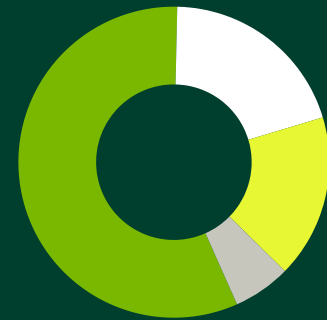


2024 WM PHOENIX OPEN

"THE GREENEST SHOW ON GRASS"

MATERIAL RECOVERY

100%
LANDFILL
DIVERSION



57%
RECYCLED

17%
ENERGY
GENERATION

20%
DONATION

6%
ORGANICS

REUSE & DONATION



**DONATED
18 TONS**
of unused food to
local non-profits



**REUSED
21,300**
square feet of signage



**DONATED
243 TONS**
of building materials to
local organizations

COMMUNITY IMPACT



\$17.5M IN CHARITABLE DONATIONS
FROM THE THUNDERBIRDS

TRANSPARENT REPORTING



Golf
Environment
Organization
Certification



UL Validation

WATER MANAGEMENT

**REUSED
15,750 GALLONS**
of gray water on course

**RESTORED
31.3M GALLONS**
of water

First Official Water
Restoration
Sustainability Partner



11 Water Restoration Sponsors



TRADEMARK



Scottsdale



SWIRE COCA-COLA, USA



GHG EMISSIONS MANAGEMENT

100%
renewable
electricity through
Renewable Energy
Credits (RECs)

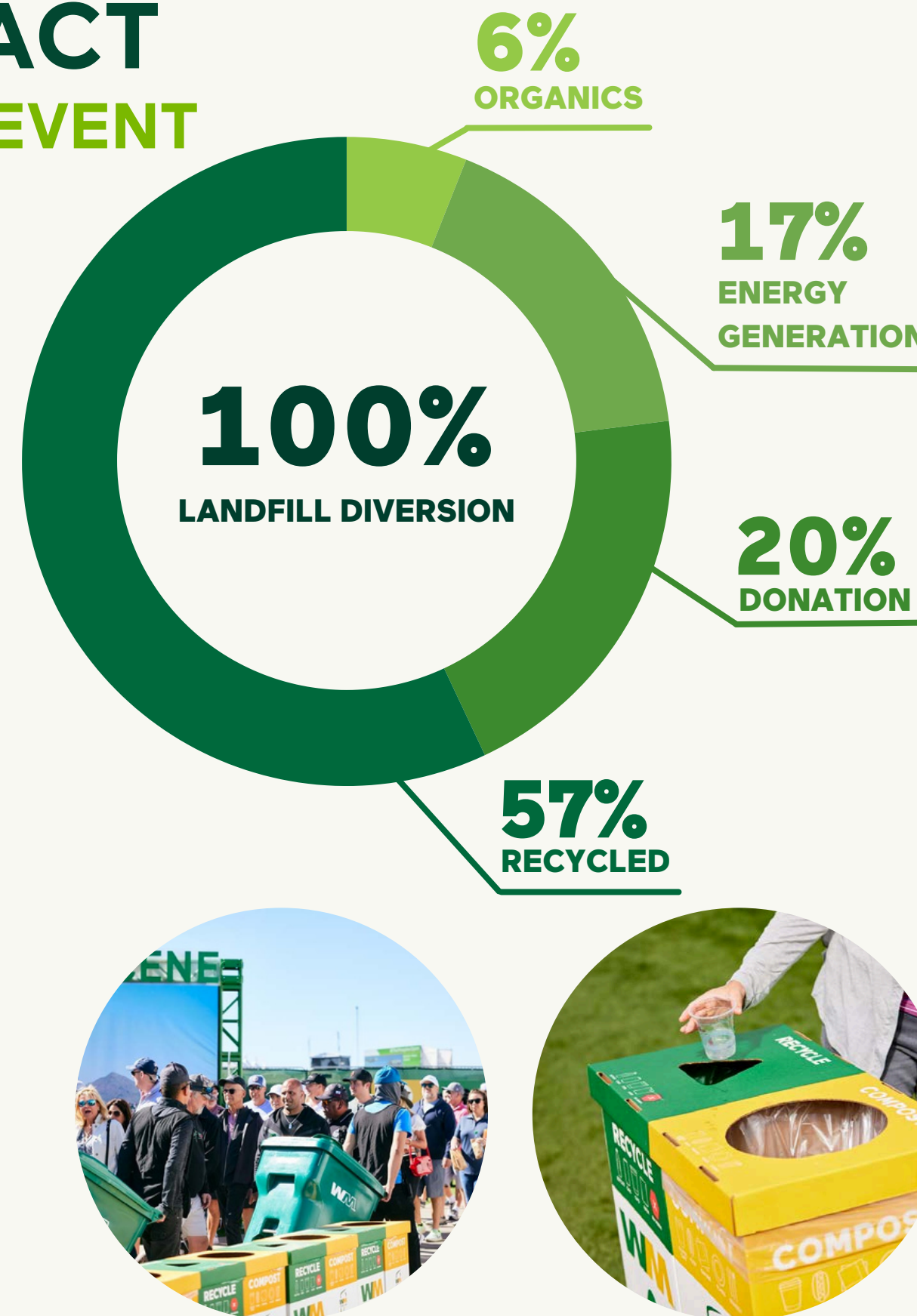
\$144,725
contributed to
Tribal Renewable
Energy Projects

ENVIRONMENTAL IMPACT

IMPLEMENTING A ZERO WASTE EVENT

WM launched the Zero Waste Challenge in 2012 in an effort to continuously improve the management of materials consumed on site, expand vendor and fan understanding of proper sorting, divert materials from landfills, and share a feeling of responsibility for creating the Greenest Show on Grass. Since then, there have been no landfill bins for fans on course—only recycle and compost bins. The WM Phoenix Open achieved zero waste in 2013 and has achieved zero waste every year since.

In 2024, the WM Phoenix Open again diverted nearly 100% of tournament materials from the landfill. Over the fifteen years of WM's title sponsorship, the idea of what makes a sustainable event has evolved. While the concept of zero waste has been an important strategy, we recognize that it does not always consider the upstream impacts of materials management choices. In our ongoing effort to reduce GHG emissions, we continuously explore the life cycle impacts of tournament materials, a concept called **Sustainable Materials Management (SMM)**. SMM helps us understand that impacts can occur at all stages of a product's life cycle—from the design, manufacturing, transport, and packaging of the item, to how the WM Phoenix Open golf fan will dispose of it, to whether it gets recycled, composted, reused, incinerated, or landfilled. Choices made at each step of a product's life can help optimize material usage, reduce water and energy consumption by keeping resources in the value chain, and mitigate GHG emissions. Our focus on comprehensive SMM has led us to require the use of material types with lower embedded emissions and focus on the expansion of reusable material programs.



RESULTS

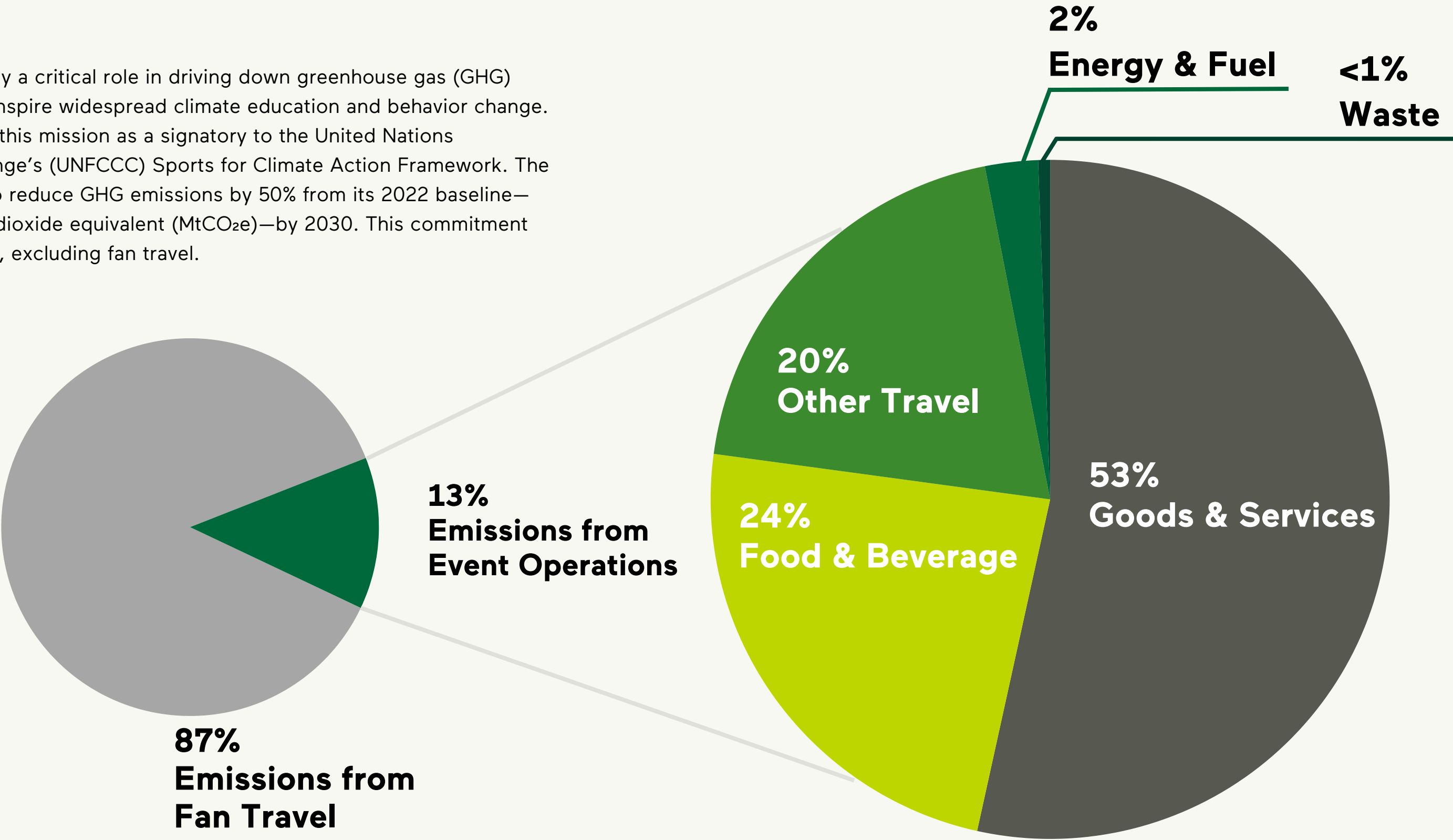
- **8,340 pounds** of wine and liquor bottles turned into reusable glassware through a local vendor, Refresh Glass.
- 100% of tournament paper materials were **Forest Stewardship Council Certified** and contained **30% post-consumer recycled content**.
- Organized **new waste diversion operations**, including on-site baling of thin film plastics and cardboard, recycling scrim, and increasing material donations.
- Coordinated with Arizona Worm Farm to **compost 42,120 lbs** of pre-consumer food remains.
- With the help of local WM employees, **donated almost 500,000 lbs of materials** to local organizations and individuals for reuse.
- **50% of the scrim** that wasn't donated was turned into landscape edging.

ENVIRONMENTAL IMPACT

GHG EMISSIONS

Businesses and sports organizations play a critical role in driving down greenhouse gas (GHG) emissions and using their platforms to inspire widespread climate education and behavior change. The WM Phoenix Open is committed to this mission as a signatory to the United Nations Framework Convention on Climate Change’s (UNFCCC) Sports for Climate Action Framework. The tournament has set an ambitious goal to reduce GHG emissions by 50% from its 2022 baseline—down to 4,028.1 metric tons of carbon dioxide equivalent (MtCO_{2e})—by 2030. This commitment encompasses all tournament operations, excluding fan travel.

Fan travel, however, remains the tournament’s largest source of GHG emissions, accounting for over 87% of the total footprint. While it is not included in the baseline reduction goal, reducing fan travel emissions is a top priority. The WM Phoenix Open actively encourages fans to carpool or use public transportation to reduce this impact. By addressing fan travel emissions, the tournament aims to maximize its contribution to meaningful climate action while continuing to lead by example in the sports industry.



ENVIRONMENTAL IMPACT

CLIMATE IMPACT


In line with our UNFCCC commitment, we employ a range of strategies that seek to reduce GHG emissions generation on and off the course.

GHG EMISSIONS REDUCTION STRATEGIES

- Prioritized **alternative energy use** across all event operations
- **Purchased RECs** to mitigate venue energy emissions
- Ran mobile generators on **biodiesel** or plugged them into the electrical grid
- Utilized WM **trucks fueled by Compressed Natural Gas (CNG)** to haul tournament waste
- **Educated fans** in the WM Green Scene about topics like GHG emissions reduction, the embedded footprint of meat, and the off-site renewable energy project on Tribal Nations land



Potential Avoided Emissions from Material Recovery (MtCO₂e)¹

	RECYCLING	-619
	MATERIAL DONATION	-454
	ENERGY GENERATION	-99
	FOOD DONATION	-75
	ORGANICS	-23

¹ Potential avoided GHG emissions are calculated using the EPA's Waste Reduction Model (WARM) to better illustrate the full impact of end-of-life waste treatment methods. These numbers were not included in the GHG Inventory in accordance with GHG Protocol standards.

SOCIAL IMPACT

ADVANCING WATER CONSERVATION

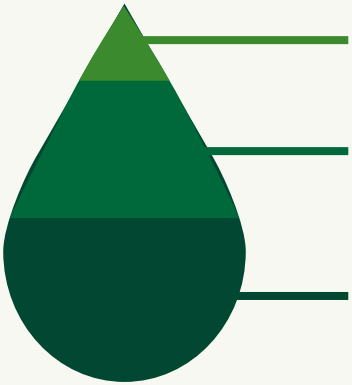
The TPC Scottsdale's high efficiency water management system helps to optimize gray water reuse, separate from tournament operations. On-course tournament conservation measures also help ensure that water is used responsibly.

2024 marked the ninth year of the tournament's coordination with **Bonneville Environmental Foundation** as a **Change the Course** participant. Tournament sponsors, vendors, and operational collaborators join The Thunderbirds and WM to reduce the WM Phoenix Open's water impacts.

Dow stepped up to support the WM Phoenix Open's efforts as the tournament's first Official Water Restoration Sustainability Partner, with a focus on water restoration. Eleven other organizations joined this effort to combine to restore 31.3 million gallons of water to Arizona's Verde River Valley, bringing the program's nine-year total to over 441 million gallons restored.

The WM Green Scene also featured water education. Signage highlighted the restoration initiative as well as program sponsors, and a cornhole game educated fans about how reusing and recycling textiles conserves embedded water, the water required to make products.

TOURNAMENT WEEK DIRECT WATER FOOTPRINT



11%

Fresh water, portable toilets - **18,000 gallons**

23%

Bottled water, consumed - **38,097 gallons**

66%

Fresh water, metered for advance week and tournament operations - **107,669 gallons**

9-Year Water Restoration Total

441M+
GALLONS



SOCIAL IMPACT

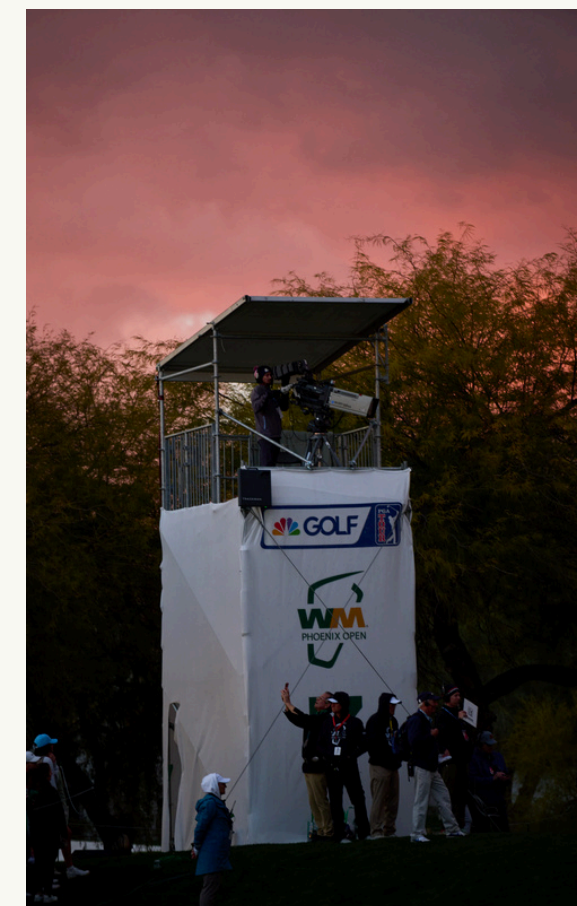
SUPPORTING COMMUNITIES THROUGH DONATIONS AND REUSE

Executing an event the size of the WM Phoenix Open requires using over a thousand tons of materials. As a zero-waste event, the Phoenix Open reuses or repurposes nearly all these materials. The tournament couldn't do this without amazing community relationships, like [Stardust Nonprofit Building Supplies](#) (Stardust).

Stardust is a 501(c)(3) non-profit organization that collects and sells gently used, salvaged, and surplus building materials to the community at affordable prices for home improvement. Operating through reuse centers in Mesa and Glendale, AZ, Stardust serves over 200,000 people every year. Through its Gifts In Kind, Stardust collects overstocked, returned, or slightly damaged inventory from local retailers and redistributes these items to non-profit organizations serving families and individuals in Maricopa County.

The WM Phoenix Open has worked with Stardust for the past ten years, donating various materials for reuse, including plywood, flooring, carpet, artificial turf, and signage. This coordination allows community members to purchase those materials at a low cost to embark on projects like laying flooring in their homes, creating sunshades from leftover signage, and building chicken coops and other structures in their yards. Stardust collects materials from the WM Phoenix Open for several months after the event, helping the tournament divert waste and support the local community through teardown.

This year, the WM Phoenix Open ramped up its donation efforts and worked with over 60 individuals and organizations to donate nearly 500,000 pounds of materials. The tournament increased donations fivefold in 2024 compared to 2023. WM is proud to work with organizations that embody our values, helping us repurpose material and supporting communities to thrive.



SOCIAL IMPACT

SUSTAINABILITY-RELATED EDUCATION

WM uses the tournament's platform to help educate fans about how to make a positive impact on the environment. To help combat recycling contamination issues nationwide, WM focuses on teaching fans how to recycle correctly, including by keeping food, liquid, and plastic bags out of recycling bins.

In 2024, short videos were featured prominently on the Golf Channel, showcasing new WM initiatives. Among the highlighted programs was the WM Phoenix Open **Working For Tomorrow Fund**SM, and the exclusive Peter Millar x WM Collection which consisted of golf attire and merchandise crafted from more eco-friendly materials. This unique collection was available for purchase at the Tournament's Merch Tent, allowing attendees to take home a piece of the event while contributing to sustainability efforts.

Six PGA TOUR players participated in an engaging challenge called "Bin It To Win It," where they tested their skills by attempting to chip various items into the correct waste bins. The items presented to them were common materials that fans might typically find around the golf course. Each player had to carefully consider whether the item belonged in the compost or recycling bin. After making their decision, they used their chipping skills to accurately send the item soaring into the designated bin, all while showcasing their creativity and sportsmanship in this fun and educational competition.

The WM Green Scene once again featured climate education and fan games. Alongside embedded water cornhole, a version of the game illustrated how minimizing and composting food waste can help to reduce GHG emissions.

WM continued to lead behind-the-scenes sustainability tours for sports organizations, PGA TOUR sponsors and partners, and other sustainability professionals. Participants learned about the intent behind the WM Green Scene games, bin design, the vendor engagement process, and other planning strategies for the tournament's comprehensive sustainability program.

Events can have an incredible ripple effect, and sustainability is in the DNA of the WM Phoenix Open. As a result, our vendors, sponsors, and fans have the potential to leave the event with an elevated understanding of their environmental footprint and what they can do in their day-to-day lives to make a difference. To WM, inspiring people to take action toward sustainability is an achievement.



SOCIAL IMPACT

SHARING SUSTAINABILITY PRACTICES

The inaugural WM Phoenix Open Sustainability Showcase took place at the tournament and brought together leaders from WM and organizations across sports and entertainment to explore sustainability opportunities within the industry.

The weekend served as a way to foster community among the people driving sustainability work within their organizations and provide a forum to exchange ideas, challenges, and best practices. Attendees included some organizations that WM already supports with sustainability advisory services as well as other organizations. Attendees represented the PGA TOUR, USGA, Major League Baseball™, NASCAR, the Florida Panthers, Milwaukee Brewers, Phoenix Suns, and the Rocket Mortgage Classic.

Event highlights included a private Sustainability Tour, breakout sessions for peer leaders to share their best practices, and a behind-the-scenes teardown tour of the tournament infrastructure. The weekend concluded with an address from WM's brand and sponsorship leaders about designing impactful sponsorships and a panel featuring the PGA TOUR, NASCAR, and Major League Baseball™ sustainability leaders, who shared insights from their experiences embedding sustainability into major events.



SOCIAL IMPACT

ENGAGING THE LOCAL COMMUNITY

COMMUNITY ENGAGEMENT

By supporting philanthropic activities and programs throughout the week, the WM Phoenix Open seeks to benefit communities across Arizona and leave a lasting, positive social impact long after the tournament ends.

OUTREACH AND ACCESS

The Thunderbirds once again celebrated active first responders as well as active and retired US military personnel with their guests at the Patriots Outpost. This is the 22nd year that the tournament has extended this free invitation and an exceptional view of the 18th Hole as a small gesture of thanks to our hometown heroes.

Dream Day, which occurs the Tuesday of the WM Phoenix Open week, is the pinnacle event for the First Tee – Phoenix School & Community Program. Volunteers, dozens of The Thunderbirds, and nearly every professional sports team’s mascot in Arizona are on hand to greet the kids. For many in this group of almost 500 grade school students, this field trip is the first time they have been to a golf course. We hope that this helps tear down the barrier of belonging and makes everyone feel welcome as the kids try golf for themselves at putting, chipping and full-swing stations. When inviting schools to Dream Day, we intentionally involve Title 1 and schools that are likely to have the highest percentage of kids that have never been to a golf course.

The tournament festivities continued later in the morning when community leaders and celebrities joined PGA TOUR players and Valley team mascots in the annual San Tan Ford Special Olympics Putting Challenge. Twenty- three-time gold medalist Michael Phelps, former Arizona Diamondbacks pitchers Zac Gallen and Brandon Pfaadt along with San Tan Ford owner Tim Hovik are just a few of the participants that paired up with Special Olympics athletes to putt nine holes.



SOCIAL IMPACT

ENVIRONMENTAL JUSTICE MAPPING

LOCAL ANALYSIS

WM conducted a community impact analysis for the 2022 WM Phoenix Open using US EPA environmental justice tools EJScreen and EnviroAtlas. The analysis evaluated demographic, socioeconomic, and environmental indicators, health disparities, critical service gaps, and climate impacts within an 18-mile radius of the event site, accounting for local community needs and proximity to Tribal Nations. The tournament remains committed to considering surrounding communities in its sustainability and social impact efforts.

GENERAL FINDINGS

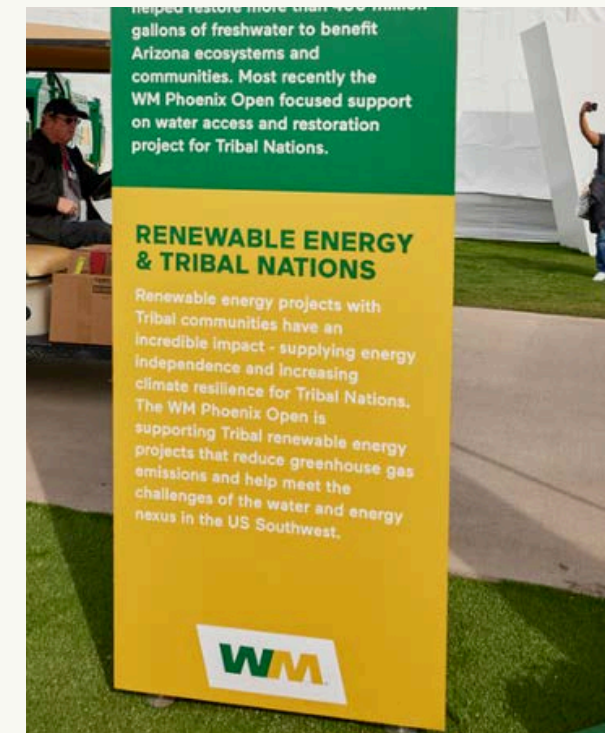
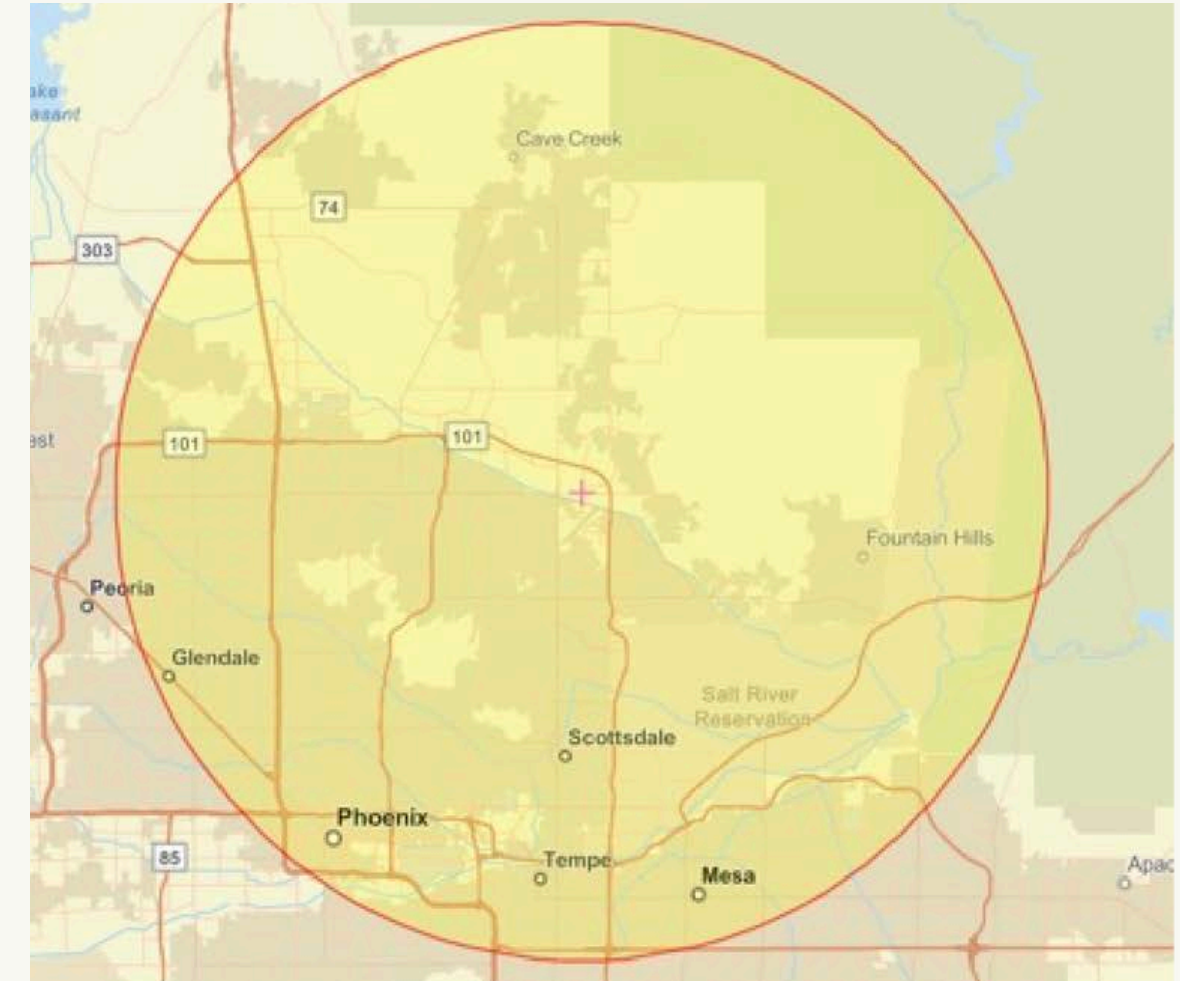
The WM Phoenix Open is located near several large communities with a diversity of ethnicities, races, migration backgrounds, and languages spoken. Within the 18-mile radius study area, US EPA's environmental justice data indicates a pattern of vulnerable communities dealing with environmental factors that affect human health such as extreme heat, heat islands, and air pollutants.

Working to understand the makeup and unique vulnerabilities of the surrounding area is essential to moving forward with holistic, community grounded environmental actions. US EPA data was leveraged to better understand effects of extreme heat and air pollutants to nearby at-risk communities and to focus engagements and impact reduction resources in those communities.

TRIBAL NATIONS PROJECTS

In 2024, the WM Phoenix Open **Working for Tomorrow Fund**SM supported several initiatives aimed at environmental sustainability and community well-being. These included water restoration and access projects for Tribal Nations, a Tribal Nations renewable energy initiative, and feeding the hungry in collaboration with Waste Not, an Arizona-based charity. Bonneville Environmental Foundation helped facilitate coordination with local organizations to execute the Tribal Nations projects.

Building on the tournament's previous support for the Navajo Water Project and the Gila River Indian Community (GRIC) Irrigation Canal PV Project, the Fund also supported the Colorado River Indian Tribes (CRIT) Drip Irrigation Conversion Project in Mohave County, AZ. This project addresses water conveyance loss to support a more reliable delivery of irrigation water to over 1,400 acres of agricultural land managed by the Mohave, Chemehuevi, Hopi, and Navajo tribes. Additionally, it aligns with salinity reduction goals to help the use of this vital arable land.



SOCIAL IMPACT

ECONOMIC IMPACT & PHILANTHROPY

ANALYSIS

Based on a 2022 economic impact analysis conducted by The Thunderbirds and Arizona State University on local activities around tournament week, the WM Phoenix Open generated an estimated economic impact of over \$465 million, demonstrating the widespread benefits to the local community.

CHARITABLE DONATIONS

The Thunderbirds generated a record \$17.5 million for charity in 2024, making donations to more than 200 different organizations throughout the year and funding additional improvements to the local community. Players, caddies, volunteers, and fans covered TPC Scottsdale in green for the 13th annual GREEN OUT day to show support for environmental sustainability. The WM Phoenix Open **Working for Tomorrow Fund**SM raised \$419,000 for four environmentally focused projects and organizations – Navajo Water Project, Waste Not, CRIT Drip Irrigation Conversion Project and the GRIC Irrigation Canal PV Project.

Despite the rainy weather earlier in the day, the stands at the iconic 16th Hole were full of enthusiastic golf fans for the WHOOP Shot at Glory held on Wednesday afternoon of tournament week. This is a closest-to-the-pin contest for a chance at winning \$1 million for charity. Taylor Morrison's Brad Schoenberg came in first place securing \$40,000 for his charity of choice. Second place went to Charlie Tucker, who took home \$25,000 for his charity. Third place went to Jim Pitman, who secured \$15,000 for charity.

Learn more about the benefiting charities at [the Thunderbird Charities website](#).



CERTIFICATIONS

For a decade, the WM Phoenix Open has validated its environmental program through third-party certifiers.

GOLF ENVIRONMENT ORGANIZATION

In 2024, we're on track to achieve our eighth [Golf Environment Organization](#) (GEO) tournament certification. The WM Phoenix Open was the first PGA TOUR tournament to achieve this certification and remains the most-attended event ever to achieve this recognition. This holistic certification covers sections on Planning, Site Protection, Natural Resource Management, Access and Equity, and Community Legacy.



UL

For the twelfth straight year, [UL](#) is providing a third-party validation of the WM Phoenix Open's zero waste program. UL requires a strict review of planning, on-course operations and detailed diversion processing reporting. In 2024, the tournament achieved a 99.6% landfill diversion rate with 17% thermal processing with energy recovery. The tournament accounts for this thermal processing with energy recovery in its GHG emissions profile and the tournament continues to work toward minimizing usage of this outlet in lieu of alternatives with a lower GHG emissions footprint.



THE THUNDERBIRDS

Organizing the WM Phoenix Open in the Valley of the Sun since 1937, the mission of The Thunderbirds is to assist children and families, help people in need, and improve the quality of life in their communities. In its history, dating back to 1932, the tournament has raised more than \$208 million for charities in Arizona. The Thunderbirds and the WM Phoenix Open have raised over \$142 million for local charities since 2010 when WM became title sponsor. Learn more information about the governance of The Thunderbirds and the organization's charitable impacts at the [WM Phoenix Open website](#).

WM

Based in Houston, Texas, WM is North America's largest comprehensive waste management environmental solutions provider. In collaboration with the PGA TOUR and The Thunderbirds, WM is dedicated to making the WM Phoenix Open the most sustainability-minded tournament on the PGA TOUR. Learn more about [WM Advisory Services](#), our [company sustainability efforts and ambitions](#), and [WM Phoenix Open](#) activities.

TPC SCOTTSDALE

Sixteen acres on the 400-acre property of [TPC Scottsdale](#) have been devoted to naturalized habitat areas, and 200 acres are desert vegetation and landscaping in the McDowell foothills of the Sonoran. TPC Scottsdale is a 36-hole resort and public golf facility and has been part of Audubon International's Cooperative Sanctuary Program since 1995. Since 2019, the TPC Scottsdale has maintained its Golf Environment Organization's sustainable golf course certification.

