



2025 WM PHOENIX OPEN SUSTAINABILITY REPORT



For over a decade, the WM Phoenix Open has proudly led the way in sustainability for sporting events.



As collaborators, WM and The Thunderbirds are united in our commitment to sustainability, working together towards achieving our zero waste mission at the tournament and helping to improve the quality of life in the Greater Phoenix area.

We're thrilled that the tournament received its 13th zero waste validation from UL Solutions (UL) and its 9th Golf Environment Organization (GEO) certification in 2025 – demonstrating a high standard for environmental and social responsibility in professional golf. Since WM and The Thunderbirds joined forces in 2010 to create "The Greenest Show on Grass," we've built strong, collaborative relationships to keep sustainability at the forefront of the tournament.

As North America’s leading environmental solutions provider, WM is committed to enabling a future where materials are repurposed, energy is renewable, and communities are thriving. These ambitions come to life on course through innovative waste diversion strategies, renewable energy usage, and fundraising for sustainability-related projects in Arizona through the WM Phoenix Open **Working For Tomorrow Fund**SM. Our goal is to contribute to setting a global standard for environmental responsibility in sports and inspire others to follow our lead.

A significant part of this success lies in the community relationships we've built. Our vendors, many of whom are local businesses, are crucial to our efforts, adhering to strict material requirements to ensure tournament products are recyclable or compostable. Beyond the event, we work hand in hand with local community organizations in an effort to donate reusable materials, potentially giving them a second life.

We are also deeply invested in giving back to the amazing community that hosts our tournament every year. The Thunderbirds prioritize contracting with local vendors, directly supporting the businesses and families that make Phoenix thrive.

The Thunderbirds are incredibly proud to have announced more than \$18 million in charitable contributions in 2025, directing these funds to organizations across Arizona that share our values and work tirelessly to improve the lives of children and families.

We would like to extend our heartfelt thanks to the entire WM and Thunderbirds teams whose dedication and expertise make the zero waste and charitable fundraising initiatives at the WM Phoenix Open possible. Their efforts are essential to making this tournament so special.

The Thunderbirds and WM remain steadfast in our shared commitment to continuously improving and advancing sustainability forward at "The Greenest Show on Grass," knowing that every effort can contribute to a healthier, more prosperous future for the environment and the Greater Phoenix area.

WM
Title Sponsor of the WM Phoenix Open

The Thunderbirds
Host of the WM Phoenix Open



Many of the choices we make during the planning for the WM Phoenix Open – the most-attended golf tournament in the world – affect 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 UL-validated zero waste sporting events in the world. The tournament has been certified as a zero waste event by UL, which requires that at least 90% of waste generated onsite is diverted from landfill. We achieve this by recycling, composting, and donating nearly all materials generated on course. Much of the remaining waste becomes fuel for energy production. This year, we increased the amount of material recycled by over 180 tons. We remain committed to minimizing environmental impacts from tournament activities. The WM Phoenix Open aims to minimize its environmental impact by reducing GHG emissions and decreasing its reliance on fossil fuels for energy. Additionally, a portion of the funds raised through the WM Phoenix Open **Working For Tomorrow Fund**SM is dedicated to supporting renewable energy projects and improving irrigation projects for Arizona’s Tribal Nations.

SOCIAL IMPACT

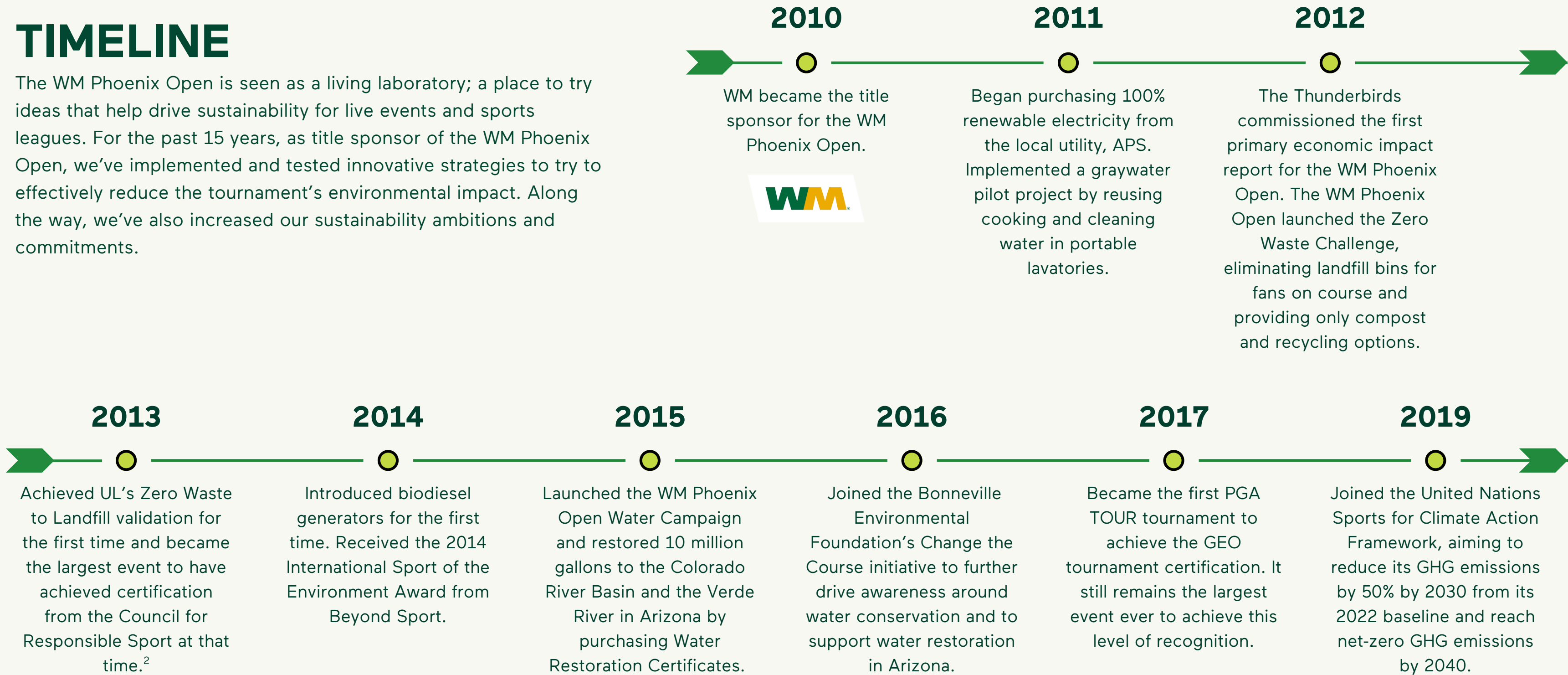
A key part of the WM Phoenix Open is raising money for causes that benefit communities across Arizona. The Thunderbirds—a philanthropic organization based in Phoenix, AZ—along with WM, local communities, tournament vendors, and sponsors, work together on implementing an effective social strategy. The Thunderbirds raised a record \$18.1 million for local charities in 2025, while the tournament generated an estimated \$478 million in total economic impact. For the second year, WM and The Thunderbirds raised money for the WM Phoenix Open **Working For Tomorrow Fund**SM to support initiatives focused on providing reliable, renewable energy and improving irrigation for underserved communities in Arizona. The 2025 tournament raised over \$422,000, even surpassing \$841,000 in the aggregate over the last two years. Every year, we continue to assess socioeconomic indicators 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.



TIMELINE

The WM Phoenix Open is seen as a living laboratory; a place to try ideas that help drive sustainability for live events and sports leagues. For the past 15 years, as title sponsor of the WM Phoenix Open, we’ve implemented and tested innovative strategies to try to effectively reduce the tournament’s environmental impact. Along the way, we’ve also increased our sustainability ambitions and commitments.



² 2013 Waste Management Phoenix Open Sets Sustainability and Environmental Responsibility Milestones



TIMELINE

2020

Began working with local vendor, Refresh Glass, to turn wine and liquor bottles into reusable drinking glasses.

2021

WM and The Thunderbirds began to contractually require 100% of vendors to commit to the reuse, donation, recycling, or composting of all materials brought on site.

2022

The Thunderbirds and WM conducted the tournament’s first materiality survey in advance of the 2022 tournament to help identify sustainability topics that are strategically important to the WM Phoenix Open and its stakeholders.

2023

WM began working with the Arizona Worm Farm as an additional local outlet for food scraps. Sent nearly 15 tons of high-density polyethylene (HDPE) mesh fencing to a vendor to recycle; some was turned into new WM carts.

2024

Launched the WM Phoenix Open **Working For Tomorrow FundSM** to direct additional funding to energy, water, and food waste minimization initiatives for underserved communities in Arizona.

2025

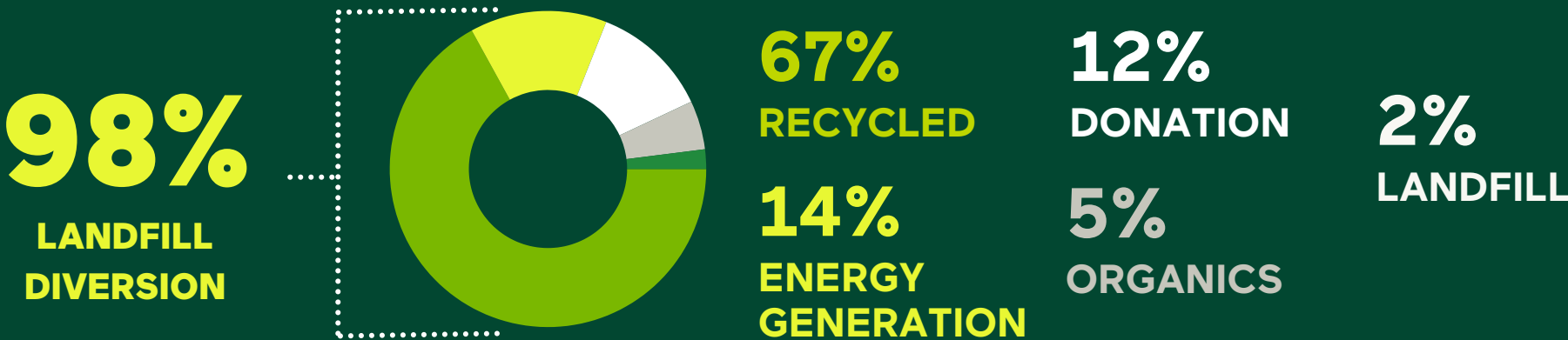
Piloted 100% polypropylene recyclable carpet in Patriot’s Outpost hospitality venue. Expanded reusable cup pilot program with Bold Reuse. Only allowed non-stamped, clear glass liquor bottles, which helped increase the amount of glass upcycled with Refresh Glass by over 53%.



2025 WM PHOENIX OPEN

“THE GREENEST SHOW ON GRASS”

MATERIAL RECOVERY



REUSE & DONATION



COMMUNITY IMPACT



TRANSPARENT REPORTING

1st	9th	13th
GHG emissions external limited-assurance	GEO Certification	Zero waste program validation by UL

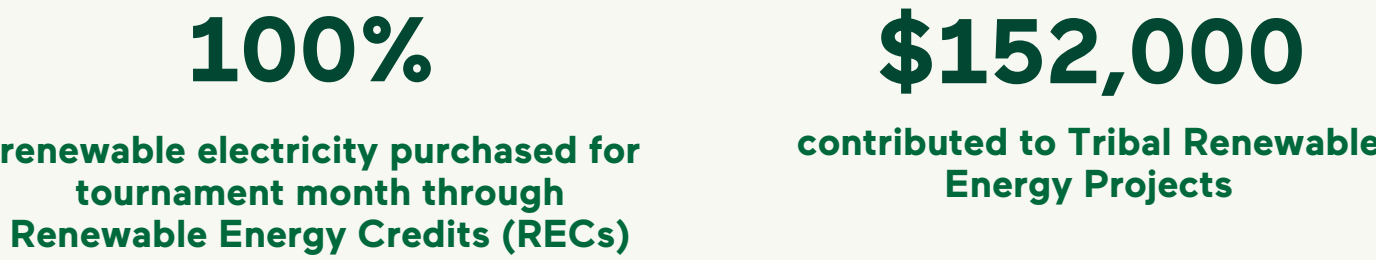
WATER MANAGEMENT



Official Water Restoration Sustainability Partner

18 Water Restoration Sponsors

GHG EMISSIONS MANAGEMENT





ENVIRONMENTAL IMPACT IMPLEMENTING A ZERO WASTE EVENT

WM and The Thunderbirds launched the Zero Waste Challenge in 2012 to elevate on-course materials management, strengthen fan and vendor understanding of proper sorting, divert materials from landfills, and build a shared sense 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 maintained it every year since.

In 2025, the WM Phoenix Open diverted 98% of tournament materials from the landfill.

This year, 27.5 tons of material were accidentally disposed of at a landfill due to unforeseen logistical challenges. While the 2025 WM Phoenix Open still achieved UL’s “Zero Waste” designation—which requires diverting at least 90% of waste from landfill—we believe it is essential to be transparent about the 2% of material not diverted from landfill in 2025 to underscore that progress is not always linear. Just as we are continuously trying to reduce the amount of waste generated, we are also evaluating how we can avoid circumstances like this in the future.

RESULTS

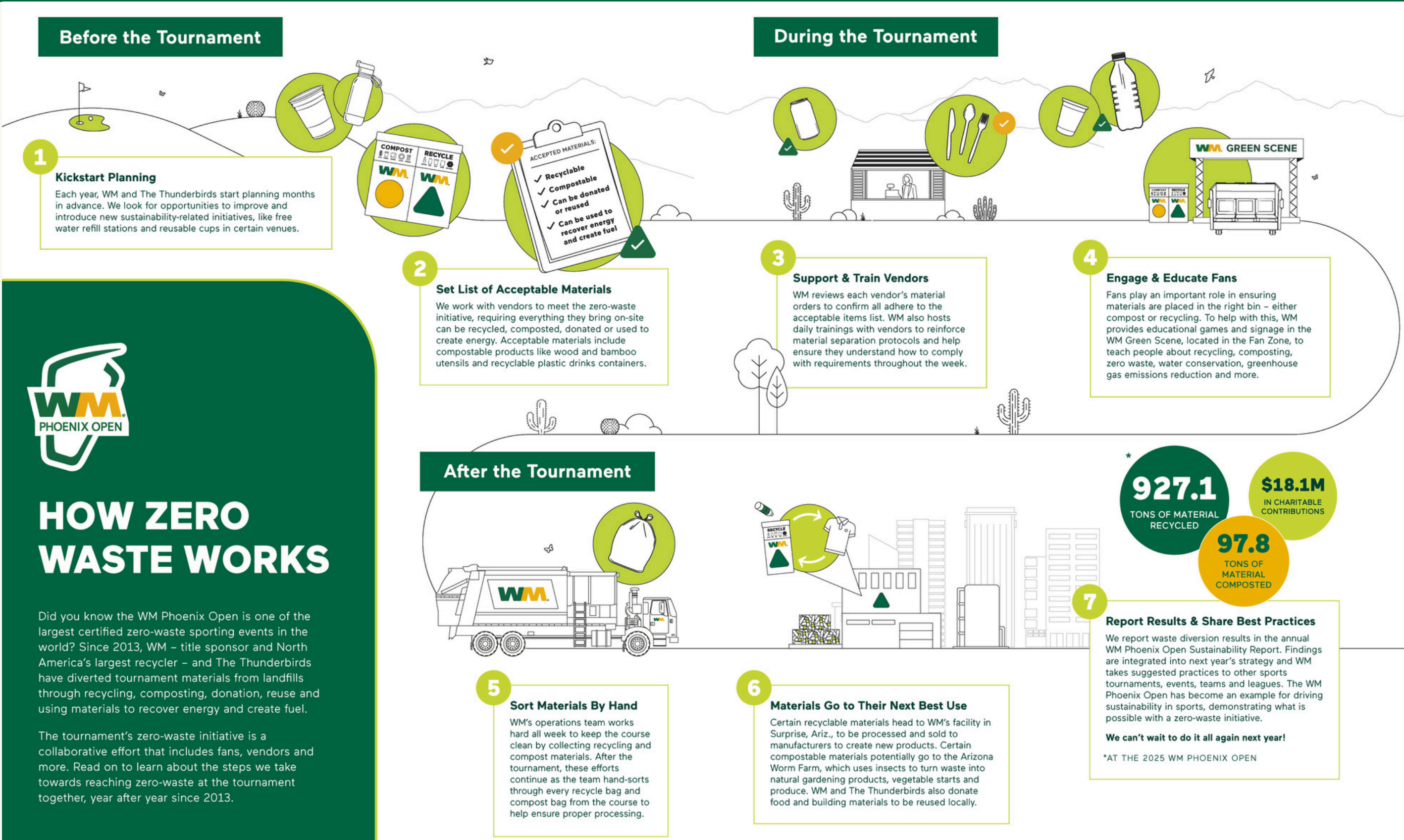
- 12,700 pounds of **wine and liquor bottles were turned into reusable glassware** through a local vendor, Refresh Glass.
- **100% of tournament paper materials** were printed on Forest Stewardship Council® (FSC®) Certified and contained 30% post-consumer recycled content.
- Worked with Clayton Flooring to recycle **19,200 square feet** of polypropylene carpet used in Patriots’ Outpost hospitality venue.
- Coordinated with Arizona Worm Farm to **compost 66,700 pounds of scraps from food preparation**.
- Together with local WM employees, we **provided 298,900 pounds of materials** to local organizations and individuals.
- **450 new WM recycling containers** made with 10% recycled HDPE scrim from the tournament.
- Donated **38,200 pounds of leftover food** to the local community.

ENVIRONMENTAL IMPACT

SUSTAINABLE MATERIALS MANAGEMENT

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 account for upstream impacts of material management choices.

In our ongoing effort to reduce GHG emissions, we continuously explore the life-cycle impacts of tournament materials through the concept of Sustainable Materials Management (SMM). SMM speaks to the impacts 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 disposes of it, to whether it gets recycled, composted, reused, or incinerated. Choices made at each step of a product’s life can help optimize material usage, reduce water and energy consumption, and mitigate GHG emissions. Our focus on comprehensive SMM has led us to require the use of material types with lower embedded GHG emissions and to focus on the expansion of reusable material programs.





ENVIRONMENTAL IMPACT DRIVING CIRCULAR SOLUTIONS

Each year, WM and The Thunderbirds collaborate to advance sustainability efforts at the WM Phoenix Open. WM's national reach and innovative approach to driving sustainability help bring solutions to the unique challenges of this highly attended tournament. At golf tournaments, scaffolding is wrapped in a protective plastic mesh covering, often called scrim. This plastic material covers grandstands, stages, and seating areas, creating space for shade and structure. Cascade Engineering – the company that makes most of the WM recycling carts that are distributed in municipalities across the country – worked with WM to recycle some of that scrim into new recycling carts.

WM collaborates with InProduction, the company that applies the scrim at the WM Phoenix Open and other major events, to recover this material. The 2025 WM Phoenix Open diverted 11.9 tons of scrim from the landfill. A portion of this was sent to Bata Plastics in Grand Rapids, Michigan, where the plastic undergoes shredding, washing, melting, and pelletizing. The resulting clean HDPE pellets were then sent a few miles over to Cascade Cart Solutions to create about 450 new plastic recycling carts, which will be used at the 2026 WM Phoenix Open to separate recyclables. This is one example of how WM and The Thunderbirds work with tournament vendors to develop innovative solutions to waste diversion challenges. See it in action [here](#).

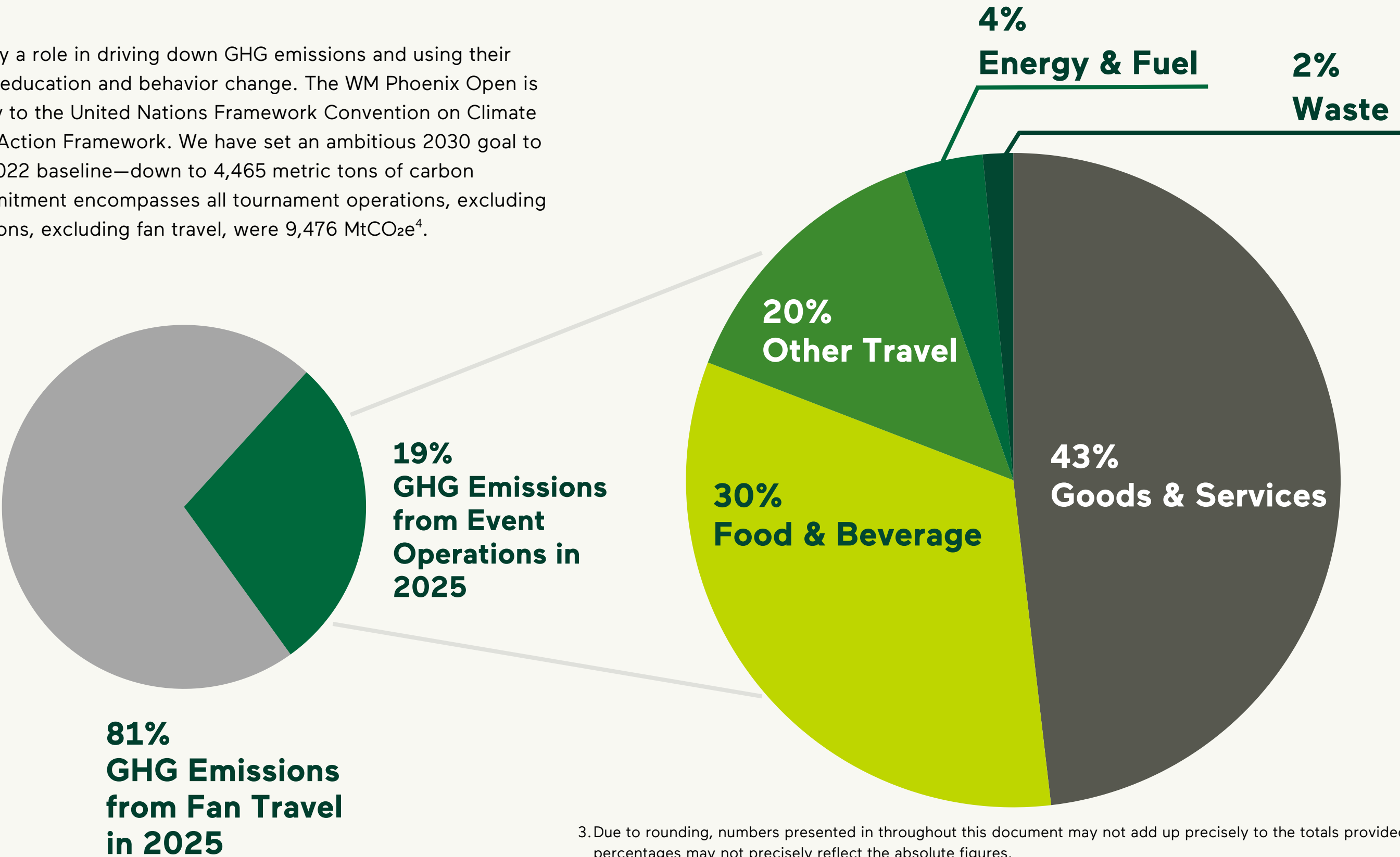
ENVIRONMENTAL IMPACT

GHG EMISSIONS

Businesses and sports organizations play a role in driving down 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. We have set an ambitious 2030 goal to reduce GHG emissions by 50% from a 2022 baseline—down to 4,465 metric tons of carbon dioxide equivalent (MtCO₂e)³. This commitment encompasses all tournament operations, excluding fan travel. In 2025, the total GHG emissions, excluding fan travel, were 9,476 MtCO₂e⁴.

Fan travel, however, remains the tournament’s largest source of GHG emissions, accounting for approximately 81% of the total footprint. While it is not included in the baseline reduction goal, reducing fan travel emissions is a top priority. In 2025, the total GHG emissions, including fan travel, were 49,910 MtCO₂e.

The WM Phoenix Open actively encourages fans to carpool or use public transportation to reduce this impact. By addressing fan travel emissions, we aim to reduce this significant source of GHG emissions while continuing to lead by example in the sports industry.



3. Due to rounding, numbers presented in throughout this document may not add up precisely to the totals provided and percentages may not precisely reflect the absolute figures.

4. The Appendix at the end of this report provides a breakdown of 2025 GHG emissions by event category and by scope.



ENVIRONMENTAL IMPACT

CLIMATE IMPACT






We employ a range of strategies that seek to reduce GHG emissions generation on and off the course. As the WM Phoenix Open has grown its attendance in recent years, the GHG emissions footprint has grown as well. We remain committed to zero waste, water stewardship, and community impact initiatives, while acknowledging the need for additional strategies to reach our long-term GHG emissions reduction objectives. We strive towards continuous improvement—particularly around energy use and supply chain emissions—to help accelerate progress and achieve the steepest possible GHG emissions reduction under current economic headwinds.

GHG EMISSIONS REDUCTION INITIATIVES

- Prioritized **alternative energy use** across all event operations
- **Purchased RECs** to mitigate venue electricity emissions
- Implemented cleaner power solutions by operating mobile generators on biodiesel or utilizing grid electricity.
- Utilized WM **trucks fueled by Compressed Natural Gas (CNG)** to haul tournament materials
- **Educated fans** at the WM Green Scene on key sustainability topics, including GHG emissions reduction and the off-site renewable energy projects on Tribal Nations' land.



Potential Avoided Emissions from Material Recovery (MtCO₂e)¹ at 2025 WM Phoenix Open

	RECYCLING	-601
	MATERIAL DONATION	-254
	ENERGY GENERATION	-87
	FOOD DONATION	-80
	ORGANICS	-20

¹ 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

Tournament Players Club (TPC) Scottsdale's high efficiency water management program helps to optimize irrigation and conserve water through a state-of-the-art, computer-controlled irrigation system and drought-tolerant landscaping.

Separately from tournament operations, reclaimed water is used to irrigate the golf course, reducing reliance on potable water. On-course tournament conservation measures, such as installing waterless urinals and other water-efficient fixtures, also help ensure water is used responsibly.

2025 marked the tenth year of the tournament's coordination with Bonneville Environmental Foundation. Sponsors and vendors joined The Thunderbirds and WM to restore water across Arizona.

18 organizations supported this effort, combining to restore 32.4 million gallons of water to Arizona's Verde River Valley, bringing the program's ten-year total to over 473.7 million gallons restored. Dow again stepped up as the Official Water Restoration Sustainability Partner of the WM Phoenix Open.

WATER RESTORATION SPONSORS



TOURNAMENT WEEK DIRECT WATER FOOTPRINT





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 2025, short videos were featured prominently on the Golf Channel. WM teamed up with media personality and golf storyteller Matt Ginella for a three-part sustainability series focused on WM initiatives on and off the golf course. The features dove into WM's commitment to the local community through the WM Phoenix Open **Working For Tomorrow Fund**SM, as well as the circular economy, with a spotlight on WM's renewable natural gas (RNG) investments.

The WM Green Scene brought climate education to life through two interactive fan games: a pitching station with material-labeled baseballs and a chipping challenge where fans hit fruit toys, metal cans, and plastic bottles into the correct compost or recycling bins—turning proper sorting into an engaging experience. WM collaborated with a roster of influencers, including Amanda Balionis, Jackson Olson, Kathryn Kellogg, and Alexandra O'Laughlin, to highlight the educational fan initiatives across the course.

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 like this can create an incredible ripple effect, and sustainability is deeply embedded in 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 second annual WM Phoenix Open Sustainability Showcase brought together leaders from WM and organizations across sports and entertainment to explore sustainability opportunities within the industry.

The weekend fostered community among professionals driving sustainability within their organizations and created a forum for exchanging ideas, challenges, and best practices. Participants included current WM advisory collaborators as well as additional leagues, teams, and venues, with representation from the PGA TOUR, Major League Baseball™ and multiple professional sports organizations.

Highlights included a private sustainability tour, a night tour of the 16th Hole cleanup, and breakout sessions where peers shared their best practices. The weekend closed with remarks from WM’s brand and sponsorship leaders on designing impactful partnerships, followed by thoughts from local sustainability leadership highlighting issues facing the broader marketplace, and a keynote from Eric Werwa, former Deputy Assistant Secretary for Policy and Environmental Management at the United States (U.S.) Department of the Interior.



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 and U.S. military personnel with their guests at the Patriots Outpost. This is the 23rd 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 on the Tuesday of the WM Phoenix Open week, is the pinnacle event for the First Tee – Phoenix School and Community Program. Volunteers, dozens of The Thunderbirds, and nearly every local professional sports team's mascot were 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. Title 1 schools and schools that are likely to have the highest percentage of kids who have never been to a golf course are prioritized when inviting schools to Dream Day.



SOCIAL IMPACT COMMUNITY IMPACT MAPPING

LOCAL ANALYSIS

WM conducted a community impact analysis for the 2022 WM Phoenix Open using the U.S. EPA's former 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 diverse ethnicities, races, migration backgrounds, and languages. Within the 18-mile radius study area, the U.S. 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.

U.S. EPA data was leveraged to better understand the effects of extreme heat and air pollutants on nearby at-risk communities and to focus engagements and impact-reduction resources in those communities. Completing this study in 2022 has further informed The Thunderbirds' and WM's decisions on how to support local communities through charitable donations.

SOCIAL IMPACT THUNDERBIRDS PHILANTHROPY AND COMMUNITY ENGAGEMENT

CHARITABLE DONATIONS

The Thunderbirds raised a record \$18.1 million for charity in 2025, donating to hundreds of organizations throughout the year and funding additional improvements to the local community. The Thunderbirds’ mission is to support children and families, assist those in need, and enhance the quality of life throughout the Greater Phoenix Metropolitan Area. Funds raised through The WM Phoenix Open make this possible.

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



NEW RECORD

RAISED
\$18.1M
for Charity

2025
TOTAL

VOLUNTEER RETENTION

The Thunderbirds strive to create opportunities for local Arizonians through temporary employment and volunteer opportunities. We engage many of our volunteers through the organizations we support through our charitable donations. Based on survey results from 2025, The Thunderbirds anticipate having a 97% return rate for volunteers in 2026. They are essential to putting on a successful WM Phoenix Open every year.

A snapshot of some of the grantees for 2025 include:

\$200,000

to the Arizona Cancer Foundation for Children to help support pediatric cancer patients and their families.

\$75,000

to The Joy Bus to complete the final components of their new 6,700 square-foot kitchen, which will help them better serve homebound persons with cancer in the Phoenix metro area.

\$50,000

to the Most Valuable Person (MVP) Foundation, which runs a Leadership Academy aimed at making a difference in the lives of underserved middle school boys.

\$25,000

to Elaine’s Transportation Assistance Program, which connects vulnerable Phoenix adults to locations where they can access food, housing, healthcare, employment, justice court, community centers, and more.

SOCIAL IMPACT

WM PHOENIX OPEN WORKING FOR TOMORROW FUNDSM

RAISED
\$422K
for environmentally
focused projects and
organizations

The WM Phoenix Open **Working for Tomorrow FundSM** supports initiatives focused on environmental sustainability and community well-being. Players, volunteers, and fans donned green for the 14th annual GREEN OUT day to help fundraise and show support for environmental sustainability.

The WM Phoenix Open **Working for Tomorrow FundSM** raised over \$422,000 in 2025 to help support water restoration and access projects for Tribal Nations, a Tribal Nations renewable energy initiative, and feeding the hungry in collaboration with Waste Not. Bonneville Environmental Foundation facilitated coordination with local organizations to execute the Tribal Nations projects.

WATER RESTORATION

WM and The Thunderbirds continued their support for the Colorado River Indian Tribes (CRIT) Drip Irrigation Conversion Project in Mohave County, AZ, donating approximately \$65,000 this year. This project addresses water conveyance loss by implementing precision drip irrigation technology and canal lining to support a more reliable delivery of irrigation water to over 1,600 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.



VERDE DITCH PROJECT

Building on the water restoration donations dedicated to CRIT, WM and The Thunderbirds also donated approximately \$55,000 to the Verde Ditch Project. The Verde River is a vital water source for millions of people downstream in the Salt River Valley, specifically supporting agriculture in the area, which is an important part of the Valley's economic and cultural identity. Seepage and leakage in the network of ditches that support crop irrigation have contributed to water scarcity concerns. By piping portions of the ditch, the Verde Ditch Company, with help from The Nature Conservancy, aims to help reduce transmission losses and withdrawal from the Verde River.



TRIBAL RENEWABLE ENERGY

To help ensure renewable and reliable energy is a priority, WM and The Thunderbirds dedicated over \$152,000 of funding again this year to support Bonneville Environmental Foundation's Tribal Renewable Energy Fund. These funds are intended to assist Tribal Nations in conducting Technical Assessments to identify Tribal government facilities that would benefit from installing solar panels. These funds may also help Tribal Nations construct solar arrays on Tribal facilities, reducing energy costs and creating energy security for Tribal Nations and their Tribal members in the event of electrical grid outages.



CERTIFICATIONS

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

GOLF ENVIRONMENT ORGANIZATION (GEO)

The WM Phoenix Open earned our ninth GEO tournament certification, continuing to stand out as the most-attended event to earn this recognition.

This holistic certification verifies efforts to manage natural resource use, minimize waste, protect the site's biodiversity, ensure tournament attendance is safe and accessible, communicate the tournament's sustainability efforts, and leave a positive impact on the local community.



UL Solutions (UL)

For the thirteenth straight year, UL provided 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 2025, the tournament achieved a 98.0% landfill diversion rate with 13.7% thermal processing with energy recovery. The tournament accounts for this thermal processing in its GHG emissions profile. It continues to work toward minimizing the use of this outlet in favor of alternatives with a lower GHG emissions footprint.



THE THUNDERBIRDS

Organizing the 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. Since 1932, the tournament has raised more than \$226 million for charities in Arizona.

Since WM became the title sponsor in 2010, The Thunderbirds have raised over \$160 million for local charities. 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 ([WM.com](#)) is North America's leading provider of comprehensive environmental solutions. 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, TPC Scottsdale has maintained its Golf Environment Organization's sustainable golf course certification.





2025 WM PHOENIX OPEN
**SUSTAINABILITY
REPORT
APPENDIX**



2025 WM PHOENIX OPEN GHG INVENTORY BY EVENT CATEGORY

Throughout this report, GHG emissions data are organized into categories that align with operational language and are easily understandable for all stakeholders. Event-based reporting emphasizes additionality—regardless of stakeholder—to provide a complete account of GHGs emitted as a result of the event. This approach enables the setting of holistic goals and Key Performance Indicators (KPIs). When not viewed from a single reporting entity’s perspective, the scopes defined by the GHG Protocol Corporate Accounting Standard are less applicable. If an event stakeholder wishes to reflect their specific contribution or allocate a portion of the total event emissions, all emissions are tracked and recorded in a manner that supports multiple stakeholders’ reporting perspectives. On the next page, emissions are categorized within GHG Protocol scopes from the perspective of the Thunderbird’s Charities if they were to conduct a corporate GHG emissions inventory.

Emission sources are categorized into the following: Travel & Accommodation, Food & Beverage, Goods & Services, Fuel & Energy, and Waste. These categories represent the material activities involved in putting on a major event and are aligned with industry best practices and guidance.

Emissions Source Category	Total MtCO ₂ e
Travel & Accommodation	42,348
Fan Travel	40,434
Shuttle	1,126
Volunteer Travel	266
Player Travel	188
Broadcast and Media Travel	106
Support Staff Travel	72
Operational Vehicles	54
Vendor Travel	41
Sponsor Travel	24
Staff Travel	18
Sponsor Cars	14
Player Shuttle	5

Emissions Source Category	Total MtCO ₂ e
Goods & Services	4,111
Equipment Rentals	2,200
Decor	828
Support Services	595
Supplies	416
Deliveries	45
Sponsor Gifting	21
Employee Uniforms	7
Food & Beverage	2,848
Beverages	2,342
Food	506
Waste	221
Waste Hauling	184
Waste to Energy	21
Landfilling	16
Recycling	-
Composting	-
Donations	-

Emissions Source Category	Total MtCO ₂ e
Energy & Fuel	382
Mobile Equipment	103
Venue Electricity	96
Generators	64
Propane	47
Golf Carts	25
Miscellaneous Equipment	19
Vendor Fuel	14
Other Stationary Equipment	9
Light Towers	5
Refrigerated Trailers	1
Grand Total (Location-based)	49,910
Grand Total (Market-based)	49,867
Biogenic Total	4



2025 WM PHOENIX OPEN GHG INVENTORY BY SCOPE*

Emissions Source Category	Total MtCO ₂ e
Scope 1	257
Mobile Combustion	137
Mobile Equipment	103
Golf Carts	20
Sponsor Cars	14
Stationary Combustion	120
Generators	64
Propane	42
Other Stationary Equipment	9
Light Towers	5
Refrigerated Trailers	1
Scope 2	0
Purchased Electricity	0
Purchased Electricity	0

Emissions Source Category	Total MtCO ₂ e
Scope 3	49,653
Purchased Goods & Services	8,078
Beverages	2,342
Equipment Rentals	2,200
Shuttle	1,126
Decor	828
Support Services	595
Food	506
Supplies	416
Operational Vehicles	54
Employee Uniforms	7
Player Shuttle	5
Fuel and Energy Related Activities	29
Miscellaneous Equipment	19
Golf Carts	5
Propane	5
Upstream Transportation and Distribution	279
Broadcast and Media Travel	106
Support Staff Travel	72
Deliveries	45
Vendor Travel	41
Vendor Fuel	14

Emissions Source Category	Total MtCO ₂ e
Scope 3, continued	49,653
Waste Generated in Operations	221
Waste Hauling	184
Waste to Energy	21
Landfilling	16
Recycling	-
Composting	-
Donations	-
Business Travel	77
Pro-Am Player Travel	59
Staff Travel	18
Downstream Transportation and Distribution	40,852
Fan Travel	40,434
Volunteer Travel	266
PGA TOUR Player Travel	128
Sponsor Travel	24
Other Upstream and Downstream Emissions	117
Venue Electricity (Location-based)	96
VIP Sponsor Gifting	21
Venue Water	<1
Grand Total (Location-based)	49,910
Grand Total (Market-based)	49,867
Biogenic Scope 1	4
Biogenic Total	4

*Scopes are allocated based on the reporting perspective of The Thunderbirds Charities, and do not reflect WM’s corporate inventory.





19 December 2025

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Waste Management National Services, Inc.
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Houston, TX 77002

RE: WM Phoenix Open Golf Tournament – Independent Assurance Statement for Greenhouse Gas Inventory (Reporting Year 2025)

INTRODUCTION

Aster Global Environmental Solutions, Inc. (“Aster Global”) was commissioned by the Advisory Services Team of Waste Management National Services, Inc. (“WM”) to carry out an independent verification of the 2025 WM Phoenix Open Golf Tournament greenhouse gas (GHG) assertions relating to GHG Scope 1 and 3 emissions. WM evaluated 7 Scope 3 categories and provided data for categories relevant to the WM Phoenix Open Golf Tournament for verification.

WM has sole responsibility for preparation of the data and external report. Aster Global, in performing our assurance work, is responsible to the management of WM. Our assurance statement; however, is an external audit and represents our independent opinion and is intended to inform all stakeholders including WM.

SCOPE OF ASSURANCE

The scope of work agreed with WM included the following:

- Organizational boundaries for the GHG inventory are all activities and facilities under the direct operational control of the event organizers, as well as significant indirect emissions sources within the event's value chain. This includes but is not limited to event energy and fuel consumption, purchased goods and services, event-specific transportation, and waste management. Electricity is not purchased directly by the event organizers, the associated emissions and purchased Renewable Energy Credits (RECs) are accounted for in the Scope 3; Other Upstream Emissions category.
- All data was verified for the period between 01 June 2024 to 30 April 2025
- GHG data verified includes the following emission scopes:
 - Scope 1 - Direct emissions
 - Scope 3 - Value chain emissions including 6 categories and 2 categories defined by WM as “Other Upstream and Downstream”:
 - category 1 - Purchased Goods and Services
 - category 3 - Fuel and Energy- Related Activities
 - category 4 - Upstream Transportation and Distribution
 - category 5 - Waste Generated in Operations
 - category 6 - Business Travel

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- category 9 - Downstream Transportation and Distribution
- Other Upstream and Downstream

The assurance was completed between July 2025 and December 2025

- Assurance was carried out to a limited level of assurance with 5% materiality applied to each emissions scope category
- The verification for GHG emissions was conducted using the ISO-14064-3 Standard

VERIFICATION METHODOLOGY

Aster Global is accredited by the ANSI National Accreditation Board (ANAB) under ISO 14065:2020 - *Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition*; and ISO 14064-3:2019 - *Specification with guidance for the validation and verification of greenhouse gas assertions* for verification of assertions related to GHG emissions and removals at the organizational level, and validation/verification of assertions related to GHG emissions reductions and removals at the project level. It is important to note that while Aster Global is an accredited validation/verification body under ANAB, this verification does not fall under the ANAB accreditation.

The inventory was verified in accordance with the ISO 14064–3:2019 Specification with guidance for validation and verification of greenhouse gas assertions. The inventory was verified using the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard (GHG Protocol), GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard, and the 2025 WM Phoenix Open Methodology Report.

The following methods were applied during the verification of the WM Phoenix Open Golf Tournament, the data that supports the GHG emissions inventory, and the GHG assertions presented by the WM:

- Review of documentation, data records and sources relating to the corporate golf tournament data and GHG emissions.
- Review of the processes and tools used to collect, aggregate and report on GHG emissions.
- Interviews with WM Advisory Services Team representing relevant functions for supporting the GHG inventory management process for the golf tournament.
- Assessment of GHG information systems and controls, including:
 - Selection and management of relevant GHG data and information;
 - Processes for collecting, processing, consolidating, and reporting GHG data and information;
 - Systems and processes that ensure the accuracy of the GHG data and information;
 - Design and maintenance of the GHG information system; and
 - Systems and processes that support the GHG information system.
- Performed sample-based audits of the processes for generating, gathering and managing the quantitative and qualitative information included in the golf tournament data and 2025 WM Phoenix Open Methodology Report.
- Examination of the GHG data and information to develop evidence for the assessment of the GHG assertions.
- Confirmation of whether or not the organization conforms to verification criteria.
- Evaluation of whether the evidence and data are sufficient and support WM's GHG

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assertions.

CONCLUSIONS

WM's GHG assertions as they relate to the WM Pheonix Open Golf Tournament are:

- Scope 1 emissions include 257 metric tonnes of CO₂e from anthropogenic sources and 4 metric tonnes CO₂e from biogenic sources;
- Scope 3 (Market) emissions include 49,610 metric tonnes of CO₂e from anthropogenic sources;
- Scope 3 (Location) emissions include 49,653 metric tonnes of CO₂e from anthropogenic sources;
- Total emissions (Market) are 49,871 metric tonnes of CO₂e including 49,867 metric tonnes of CO₂e from anthropogenic sources and 4 metric tonnes of CO₂e from biogenic sources.

Based on the processes and procedures conducted with a limited level of assurance, Aster Global concludes that the GHG assertions are materially correct and are a fair representation of GHG data and information and have been prepared in accordance with the calculation method and criteria referenced above.

INDEPENDENCE

As an independent third-party verifier, Aster Global was not involved in the preparation of any part of WM's data or report. We followed the ISO requirements and processes for verifications and audits and adopt a balanced approach towards all stakeholders when performing our evaluation.

Sincerely yours,
ASTER GLOBAL ENVIRONMENTAL SOLUTIONS



Barbara Toole O'Neil, QEP
Lead Verifier

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