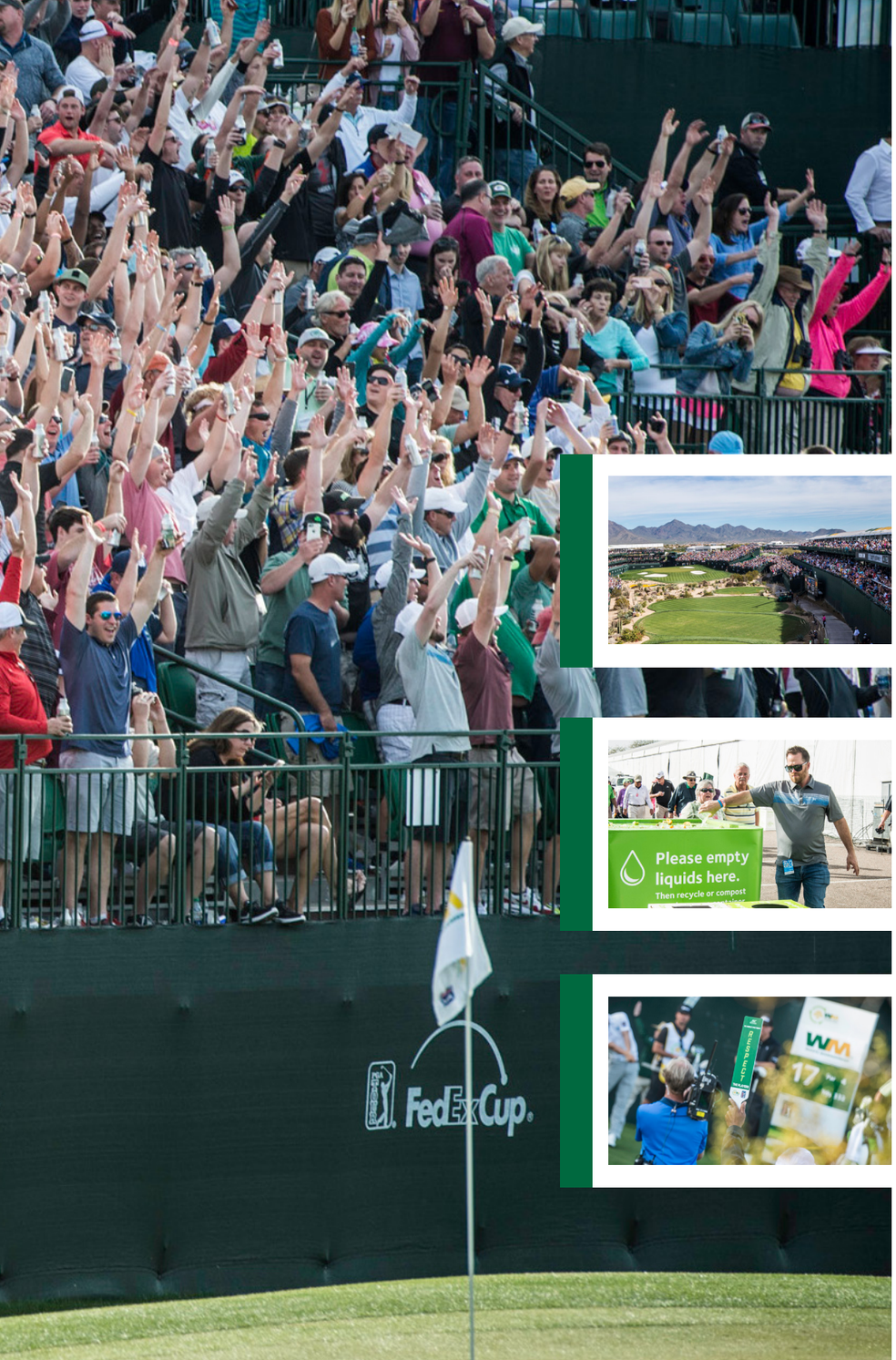
Waste Management Phoenix Open

2017 Sustainability Report Update

USDN | urban sustainability directors network

WASTE MANAGEMENT PHOENIX OPEN

2017 SUSTAINABILITY REPORT UPDATE



Every choice we make during the months of planning for the Waste Management Phoenix Open (WMPO) - the best-attended golf tournament in the world - affects our claim to the title of the "The Greenest Show on Grass."

The Thunderbirds, Waste Management, the PGA TOUR, TPC Scottsdale and all tournament stakeholders continue to be trailblazers on the journey towards increased sustainability. Along the way, we are thrilled to share best practices with other sporting events and venues to green their games.

ECONOMIC IMPACT

2017 marked the 82nd annual Waste Management Phoenix Open tournament, making it one of the five longest established events on the PGA TOUR. Arizona State University estimated the total economic impact from the 2017 tournament and its **655,434 fans at $389.3 million**, one of the largest financial impacts of any golf event in the nation.

ENVIRONMENTAL IMPACTS

Environmental impacts from the use of water, energy and materials all contribute to the greenhouse gas emissions that are warming our planet.

SOCIAL IMPACTS

Making the WMPO what it is today takes not only resources, but also commitment from all community stakeholders. Communication and interaction between stakeholders, from managing traffic congestion to ensuring everyone who wants to is able to participate and enjoy the event, is key to positive social impacts and also highlighted in this report.

The table below outlines all WMPO emissions sources and associated GHGs from 2010 through 2017.

		(MtCO2e)[1]							
FUEL USE		**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Propane	heat, cooking	52	82	81	37	42	60	95	66
Diesel	shuttle buses	48	64	53	29	28	27	25	24
Biodiesel	shuttle buses	-	-	-	11	6.4	7.0	11	7.6
Gasoline	sponsor cars	27	21	21	20	17	16	10	21
Diesel	sponsor cars	-	-	-	0.2	0.4	-	-	-
Diesel	VIP shuttles	-	-	-	-	-	-	-	4.3
Diesel	waste hauling/portable toilet service	23	12	17	17	27	23	21	21
CNG[2]	portable toilet service	-	14	3.7	5.6	9.9	32	18	26
Diesel	generators	33	47	57	39	-	-	-	-
Biodiesel	generators	5.0	-	10	28	24	17	31	53
Biodiesel	refrigerated trailers	-	-	-	-	-	-	15	11
Electricity	renewable energy	-	-	-	-	-	-	-	-
WASTE END-OF-LIFE MANAGEMENT									
Compost	food scraps, food/beverage materials, wood	-2	28	54.2	74	67	67	82	93
Recycling	plastics, metals, fibers	-218	-101	-308	-209	-299	-259	-288	-404
Waste-to-energy	non-recyclable fiber and plastics, MRF residue	-	-	-0.2	-3	-0.3	-0.3	-0.3	20
Donation	scrim, carpet, turf, programs	-	-	-	-	-	-20	-33	-29
Donation	food	-	-	-	-31	-18	-58	-35	-45
TOTAL GREENHOUSE GAS EMISSIONS[3]		**-32**	**-167**	**-11**	**18**	**-96**	**-90**	**-49**	**-131**

1 MtCO2e is metric tons of carbon dioxide equivalent.
2 CNG volume is provided in gas gallon equivalent.
3 The World Resources Institute GHG Protocol, Climate Registry General Reporting Protocol, and EPA WARM model were used to calculate GHG emissions.

The Waste Management Phoenix Open operates under ISO20121 standard for sustainable events management, which defines the requirements to ensure an enduring and balanced approach to economic activity, environmental responsibility and social progress relating o events. For details and our GRI G4 Index, see the full 2015 WMPO Sustainability Report for details and the 2016 WMPO Sustainability Report Update.

For years, the WMPO has invited third party certifiers to evaluate our environmental claims.

In 2013, we achieved the Council for Responsible Sport Gold Certification. In 2015, we improved to get Evergreen Certification, becoming the first PGA TOUR tournament and the largest event ever to achieve this level of recognition. In 2017, we were invited to the Council's Inspire program, which requires data tracking, analysis, and has a mentoring component. The WMPO chose to mentor the Golf Environment Organization (GEO) by piloting their sustainable golf tournament standard at the 2017 tournament, providing feedback on credits and the documentation process. **In 2017, the WMPO became the first GEO Certified© tournament.**

Since 2013, UL has provided a third-party verification of the event's waste diversion. UL reviews WMPO procurement information and weight tickets to understand where materials are initially delivered, and where all waste streams are processed down the line. UL verified this effort, awarding the WMPO "**100% landfill diversion rate with 13.9% incineration with energy recovery.**"

ENERGY

Since becoming the title sponsor of the WMPO, renewable energy practices have avoided 738 MtCO2e, which corresponds to taking 158 cars off the road for one year or recycling an additional 257 tons of waste. For the last 7 years, the WMPO purchased 100% renewable energy from Arizona Public Service, the local utility, which powers all generators plugged into the grid and most of the golf cart fleet. The sun continued to be a great source of power for compactors and some of the light fixtures used around the course.

Generators that could not be plugged into the grid ran on biodiesel, and over one-third of attendee shuttle busses ran on biodiesel thanks to ProEm, who managed security and bus transportation. Most WM trucks used to haul waste have been powered by compressed natural gas (CNG) since 2011, emitting less than half the GHGs of diesel.

WM offset all GHG emissions from WMPO operations (115 MtCO2e) and Pro-Am player travel (66 MtCO2e). In total, WM **offset 720 MtCO2e** through Envirofit International's clean cookstove program with important economic, social and environmental impacts, supporting ten of the UN Sustainable Development Goals.

100%
RENEWABLE ENERGY

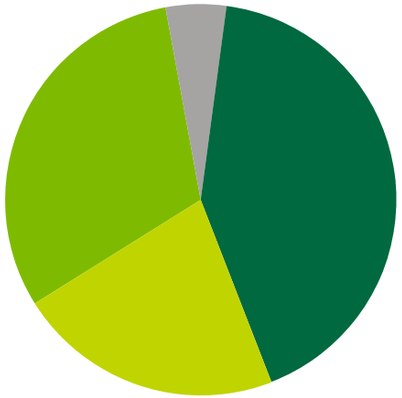
720
MtCO2e OFFSET

UN SUSTAINABLE DEVELOPMENT GOALS ALIGNED WITH ENVIROFIT CLEAN COOKSTOVE PROGRAM

WATER

The WMPO implements conservation measures to ensure that water is used responsibly and limits pressures on the municipal water supply. Hand-washing stations used hand sanitizer instead of water, and in 2017 WM captured an estimated 5,775 gallons of grey water. **Since 2011, approximately 31,434 gallons of water from cooking and cleaning have been reused** in the portable toilets.

2017 marked the third year of the WMPO Water Campaign. Working with Bonneville Environmental Foundation (BEF) as a Change the Course sponsor, and teaming up with Coca-Cola and the Thunderbirds, **WM restored 161 million gallons of water to the Colorado River Basin and the Verde River in Arizona over three years.**



FRESH WATER, METERED	42%
BOTTLED WATER	31%
FRESH WATER, USED IN PORTABLE TOILETS	22%
GRAYWATER, RESUSED	5%

ZERO WASTE CHALLENGE

WM launched the Zero Waste Challenge in 2012 to control event materials and educate attendees on the impact they can have on course and at home. Since then, there have been no trash bins on course, only recycle and compost bins. In 2017, we again **diverted 100% of all tournament materials from the landfill!** In all, our waste management practices have avoided the equivalent of removing 598 cars off the road for one year.

In 2017, WM continued utilizing three Zero Waste Stations. The repurposed 40-cubic yard roll-off dumpsters transformed into eye-catching kiosks where fans can play an interactive game that also teaches them more about how to recycle and compost, both on the course and at home.

All materials brought on site must be locally reused, recycled, or composted. Vendors agree to this in the contract with the Thunderbirds.

SOME RESULTS

- 68% of 2017 signage was reused from previous tournaments
- 84% of the 2017 signage is being stored for potential reuse
- Over 59,000 printed items were eliminated
- Daily tickets, pairing sheets, parking passes and parking maps were printed on paper that uses 30% post-consumer recycled content
- Over 90% of paper badges are printed on paper made of 50% total recovered fiber
- All paper materials were Forest Stewardship Council Certified
- Volunteer badges were made from recyclable #5 plastic
- One WM logo water feature used 144,000 golf balls and the second used 750,000 reused golf tees made from 100% recycled content, both reused every year since 2012
- Vendors donated 23,500 pounds of unused, perishable food to local organizations
- WMPO remains the largest verified zero waste event in the world

SOCIAL IMPACTS

The WMPO has a positive social impact on the local community with programs throughout the week.

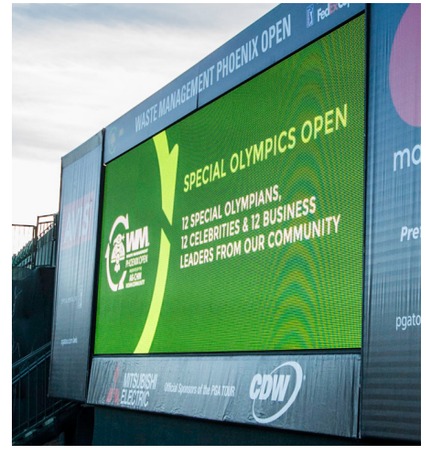
Youth, differently-abled individuals, and hometown heroes

The Standard Bearer Program promotes youth involvement, inviting students under 18 to carry the player score signs and walk around with a grouping – up to seven miles in one round! In 2017, over 312 students participated.

The R.S. Hoyt Jr. Family Foundation Dream Day allows youth to experience golf through a junior clinic, motivational speaker and ticket shot show. In 2017, a record of more than 450 students participated from five schools from four school districts.

Differently-abled and disabled individuals are encouraged to participate in WMPO activities through the CBS Outdoor Special Olympics Open.

The WMPO promotes positive community stakeholder engagement, including free event entry to all law enforcement, firefighters, emergency services, active, reserve and retired military personnel, and family members or one accompanying guest. The Brave Patriots' Outpost has free food and drinks for all military personnel and their guests, along with a great view of the 18th Hole.



CHARITY

The WMPO generated over $10 million for charity in 2017, making donations to more than 200 different organizations throughout the year and used to fund additional improvements to the local community. Saturday at the WMPO is "Green Out Day" - for every person who wears green, the Thunderbirds donate "green." A total of $100,000 was raised for three environmental groups. The Thunderbirds also donated more than $100,000 to charities chosen by participants in the 2017 Phoenix Suns Charities Shot at Glory.

The WMPO provides free booth space for one non-profit organization daily in the WMPO Expo Booth through Birdies for Charity. More information on benefiting charities can be found at the Thunderbirds' WMPO website.

WM donated $10,000 to Keep Phoenix Beautiful and Keep Scottsdale Beautiful in exchange for their representatives serving as Volunteer Managers. Volunteers posted at our Zero Waste Stations educated attendees about proper disposal on course and at home, highlighting WM's Recycle Often. Recycled Right℠ campaign that seeks to improve residential and commercial diversion.

More information on benefiting charities can be found at the Thunderbirds' WMPO website.

$10M
FOR CHARITY

200+
ORGANIZATIONS BENEFITTED

$100K
RAISED ON GREEN-OUT DAY

$100K
DONATED FROM SHOT AT GLORY

2017 WASTE MANAGEMENT PHOENIX OPEN "GREENEST SHOW ON GRASS"

WM strives to minimize waste generation, energy usage, and water consumption.

TRANSPARENT REPORTING

Council for Responsible Sport Evergreen Inspire
The first GEO Certified golf tournament in the world
"Zero Waste to Landfill Operations with 13.9% incineration with energy recovery" validation from UL

ZERO WASTE CHALLENGE

Procurement Policies control materials brought into the WMPO, and waste is reduced, reused, recycled and composted.

WATER CONSERVATION

RESTORED
63 M
GALLONS
of water

REUSED
5,775
GALLONS
of greywater

RENEWABLE ENERGY & GHG OFFSETS

Offset 720 metric tons of CO2 equivalent with Envirofit International

100% of electricity provided by renewable energy

WASTE DIVERSION

100%
materials diverted from landfill

50%
recycled

34%
composted

14%
waste-to-energy

2%
donated

REUSE & DONATIONS

DONATED
23,500
pounds of unused food to local non-profits

REUSED
57,673
square feet of signage

REUSED
140,000
golf balls in WM's water feature

REUSED
750,000
recycled-content golf tees in WM's water feature

COMMUNITY IMPACT

THE 2017 WMPO GENERATED
$10 M in charitable donations

Fans shared their passion for golf and green practices using
#GREENESTSHOW

GREEN OUT DAY RAISED
$100K for local charities thanks to fans and players sporting green

WELCOMED **12,000+**
military personnel with their guests to the Patriot's Outpost on the 18th Hole

DONATED TO
Keep America Beautiful and Keep Scottsdale Beautiful for providing Zero Waste Station volunteers

FREE TOURNAMENT ACCESS
to law enforcement, emergency services, and military personnel

STANDARD BEARER PROGRAM | FIRST TEE DREAM DAY | CBS OUTDOOR SPECIAL OLYMPICS OPEN

WASTE MANAGEMENT

FORUM

Since 2011, WM has organized a Sustainability Forum, bringing together a mix of experts, customers, government employees, non-government organizations and businesses to contribute to an open-minded dialogue around sustainability principles, best management practices and bottom-line results. With a theme of "Coming Full Circle: What's the Right Goal?," the 2017 Forum focused on how to rethink current environmental goals and collectively serve the opportunity to chart a bigger, broader, bolder course forward. Here are the highlights!

THUNDERBIRDS

Organizing the WMPO in the Valley of the Sun since 1937, the mission of the Thunderbirds is to assist children and families, help people in need and to improve the quality of life in their communities. To date, they have raised more than $110 million through their WMPO activities. For more information on the governance of The Thunderbirds, please consult the WMPO website and Thunderbird fact sheet.

WASTE MANAGEMENT

Based in Houston, Texas, Waste Management is the leading provider of comprehensive environmental services in North America. In partnership with the PGA TOUR and The Thunderbirds, Waste Management is dedicated to making the Waste Management Phoenix Open the greenest tournament on the PGA TOUR. For more information on Waste Management's corporate sustainability efforts and WMPO activities, please visit ThinkGreen.com.

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, has been part of Audubon International's Cooperative Sanctuary Program since 1995, and was an active participant in the 2017 GEO Certification.

CONCLUSION

In 2017, the WMPO again attracted more fans than ever before, repeated and improved upon our successful Zero Waste Challenge, and continued to decrease our carbon footprint. We are proud of our commitment to being the Greenest Show on Grass and what that means to the community in which the Waste Management Phoenix Open is played. By tracking and reporting the tournament's greenhouse gas emissions, making good use of the materials generated, prioritizing renewable energy and alternative energy, as well as conserving water on course and restoring water to the Southwest region, we will play our part to leave the planet in better shape than we received it.