YEAR

8

Sustainable Event Report

12 - 15 June 2019

New Zealand National Agricultural Fieldays

instep™

Sustainability in Action

ENERGY FAST FACTS

Fieldays 2019
Energy emissions increased by 25% against 2018

25%

Offsetting exhibitor energy emissions would cost

$1.60

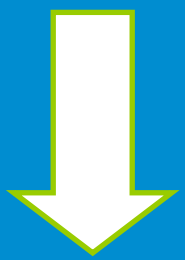
Per exhibitor

WASTE FAST FACTS

Fieldays 2019
Highest landfill diversion rate recorded

41%

10,285 fewer kilograms of waste sent to landfill



63 bin lifts

TRANSPORT FAST FACTS

Fieldays 2019
Bus transport took 687 cars off the road

687 cars

Transport emissions per visitor saved

517 tonnes of carbon

SUPPLIERS, MATERIALS FAST FACTS

Fieldays 2019
683,497 fewer sheets of paper were used

Saving 82 trees

App Downloads:

42,394

WATER FAST FACTS

Fieldays 2019

445,000 litres of water saved

Goes through
45 litres

For every visitor

GREENHOUSE GAS FAST FACTS

Fieldays 2019
Total GHG emissions
3986.08 tCO_{2e}

Standardised footprint lowest recorded

12% lower than
2018

31 kg
CO_{2e} per visitor

This report by **Instep (a division of Asian Scientific Technologies Limited)** has been prepared for

New Zealand Agricultural Fieldays 2019

and is issued according to Instep standard terms and conditions.

NEW ZEALAND AGRICULTURAL FIELDAYS 2019

SUSTAINABLE EVENT PROGRAMME

12 - 15 JUNE 2019

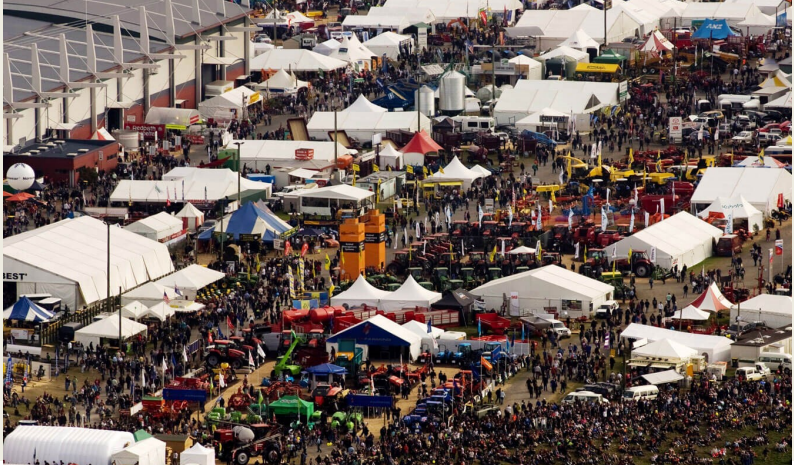
SUSTAINABLE
EVENT
2019
ISO 20121

Alisha Black
Author

Margaret Birkett
Peer Reviewer

Table of Contents

EXECUTIVE SUMMARY



The New Zealand Agricultural Fieldays

(Fieldays) has now been committed to sustainable event management for eight years, incorporating environmental management and carbon footprint calculations into the event planning and staging.

This year's event was held from 12 - 15 June and attracted 128,747 visitors over the four days. 1,069 exhibitors displayed products and services over 1,559 sites at the Mystery Creek Event Centre in Hamilton, New Zealand.

During the event, various Environmental Impact Areas (EIAs) were identified in order to set objectives and monitor progress. Data was then gathered on-site by independent staff utilising meter readings, calculations and surveying. This was followed by post-event data collection. All information was then used to calculate a carbon footprint for the event, assess whether objectives had been achieved, and recommend initiatives for environmental improvement in future. Results and objectives for all EIAs are summarised in Table A on the following page.

FIELDAYS 2019 IS COMMITTED TO SUSTAINABLE EVENT MANAGEMENT ACROSS ALL AREAS OF EVENT PLANNING AND STAGING. FIELDAYS AIMS TO SHOWCASE EXCELLENT ENVIRONMENTAL STEWARDSHIP AS AN EXAMPLE TO NEW ZEALAND'S AGRICULTURAL INDUSTRY

The achievements made at Fieldays' 2019 towards their Environmental Impact Area Objectives have been at the highest level since monitoring began. From the 21 Objectives set, 12 were fully achieved with another 6 in progress .

Highlights of this year's Sustainable Event include:

- Fieldays 2019 GHG profile is at its lowest level of the past eight years at 3,986.08 tonne CO_{2e} along with a record low standardised footprint of 31 kilograms CO_{2e} per visitor.
- Liquid fuel use on site remains the biggest challenge, with diesel and petrol rising a combined 64%.
- Successful waste initiatives include the introduction of sorting waste to send to commercial composting, partnerships with 20 large exhibitors with the Waste Partnership and removing single use plastic from the bar.
- Total waste fell 16% from 2018 and landfill waste by 19%. The target for composting was achieved, with 1,500 kg sent to composting.
- Lowest transport footprint over last eight years of 3,838.48 tCO_{2e}.
- Record number of bus passengers; 11% of all visitors took the free bus, more than double the goal of 6%.
- Massive reductions in all printed materials; 683,497 fewer sheets of paper were used, the equivalent of 82 trees.
- During June 2019, 445,000 fewer litres of water was used on site versus 2018.

Table A: Fieldays 2019 Summary of Results

✓ = Achieved — = Partly Achieved ! = Not Achieved

Environmental Impact Area			Objectives	
Energy	**137.12** tonne CO_{2e}	↑ 25%	1.Reduce energy emissions per exhibitor back to Base Year levels through a exhibitor sustainability levy.	!
	191,152 kWh electricity	↑ 1%	2. Investigate carbon mitigation or conservation programmes that may align with the exhibitor offset levy.	—
	36,064 Ls fuel	↑ 64%	4. Plan logistics around introducing an exhibitor sustainability levy.	—
	10,825 kg LPG	↑ 16%	3. Communicate positive environmental messages around these programmes to exhibitors.	✓
			5. Trial a small solar powered site..	!
			6. Use online and social media communications to share energy savings.	✓
Waste	**10.48** tonne CO_{2e}	↓ 56%	1. Divert 50% of all waste from landfill.	—
	75,534 kg waste	↓ 16%	2. Strongly encourage compostable packaging in order to collect >1,000 kg compostable material.	✓
	29,859 kg recycling	↓ 12%	3. Introduce Sustainable Waste Partner scheme with key exhibitors.	✓
	41% landfill diversion	↑ 4%	4. Continue sorting of hot zones waste.	✓
			5. Continue to promote composting of food and coffee grinds across site.	✓
			6. Expand composting to sorting and composting of commercially compostable serveware and coffee cups.	✓
			7. Hold a waste workshop with exhibitors and vendors to gather ideas, opportunities and issues.	!
Transport	**3,838.48** tonne CO_{2e}	↓ 14%	1. Further incentivise bus travel to lift bus patronage to 6% of all visitors .	✓
	10,817 km bus travel	↑ 11%	2. Communicate the benefits for everyone in terms of reduced traffic congestion when shared transport is used.	✓
	13,220,693 km vehicle travel	↓ 12%	3. Prioritise the reduction of air travel emissions among staff and delegates.	—
	9,224,295 pkm air travel	↓ 21%		
	9,026 km staff travel	↓ 81%		
Materials	**114,436** A4 sheets	↓ 86%	1. Double App downloads to 70,000.	—
			2. Promote ticket downloads as well as Apps to reduce need for printed tickets.	✓
			3. Incorporate digital over printed paper into daily Mystery Creek HQ practices.	✓
Water	**5,807 m³** water	↓ 7%	1. Determine water usage per flushed toilet.	—
			2. Work with grounds staff to identify which metres services which areas.	✓

INTRODUCTION

Sustainability and environmental concerns are becoming increasingly important amongst event attendees and stakeholders. The management team at NZ National Fieldays Society has acknowledged these concerns and committed to playing their part in bringing more sustainable events to New Zealand.

For eight years now The New Zealand Agricultural Fieldays event (Fieldays), held over four days at Mystery Creek in Hamilton New Zealand, has incorporated sustainable event management into the event planning and staging.

The Instep Sustainable Event Programme (ISEP) follows international standard ISO 20121 which includes monitoring of sustainability metrics and calculation of greenhouse gas (GHG) emissions, or a carbon footprint as it is commonly referred to. Fieldays is currently an ISEP certified Sustainable Event.

Benchmarking between past Fieldays' events and other Mystery Creek events is now an established way to gauge each event's progress against NZ National Fieldays Society's Best Practices for Sustainability.

CALCULATION METHODOLOGY ACTIVITY DATA X EMISSION FACTOR

=

GREENHOUSE GAS EMISSIONS, TONNE CARBON DIOXIDE EQUIVALENT ($T\ CO_{2E}$)

BACKGROUND: New Zealand National Agricultural Fieldays

The New Zealand National Agricultural Fieldays Event is an annual international agricultural show held in Hamilton, New Zealand in June each year.

The event in 2019 attracted a record number of 1,069 exhibitors on 1,559 exhibitor sites spread over an area of 114 hectares.

This year 128,747 visitors came through the gates over the four days of the exhibition.

Fieldays exhibits cutting edge agricultural technology, innovations and developments in the agriculture and farming industries. As a non-profit organisation, any surplus generated from the event, or from hosting other events on site, is invested in further development of the property, venues and facilities, and charitable purpose along with advancing agriculture.

This model has seen the event grow from strength to strength with continued support from primary industry and government alike.

Fieldays is recognised as a crucial date in the agricultural calendar and generates both local and international business growth opportunities.

BACKGROUND: Sustainable Events

Increasingly, event organisers have recognised that staging an event can impact the environment in various ways, and many have embraced the challenge of running their event in the most sustainable way possible. There are many definitions of the word “sustainable”. In terms of our natural environment, a sustainable event is one that ensures resources are used in such a way that they will remain available for others to use and enjoy.

The key goal when undertaking a sustainable event is that environmental impact areas are identified and monitored so that strategies can be put in place to manage these areas in future, and ultimately reduce their impact.

As part of a sustainable event, a carbon footprint is calculated. A carbon footprint is a way of quantifying the amount of GHG emissions an individual, organisation or event is responsible for.

It is widely recognised that global emissions of the six GHGs are responsible for increasing the greenhouse effect in the atmosphere, and causing potentially dangerous levels of climate change.

To calculate a carbon footprint, all possible sources of GHG emissions must first be identified. Then activity data relating to the source is collected and the amount of GHG calculated using published emission factors. Emissions from all sources are then added together to give a total carbon footprint, or carbon emission profile, expressed in carbon dioxide equivalent or CO_{2e}.

Instep provided independent monitoring at Fieldays 2019 Due to the size of the event and a long lead-up period by staff and exhibitors, data is taken from sources monitored from the entire month of June. This covers Mystery Creek staff activities, exhibitor pack-in and pack-out, site planning and post event waste clearing.

Data collected includes direct readings such as from meters on fuel tanks, invoices from suppliers, on-site observations and surveying. This data has been used to calculate GHG emissions for the event and recommend reduction measures for future events.

Instep follows the internationally recognised ISO 14064-1 to calculate carbon emissions and ISO 14064-3 to undertake quality assurance checks.

Emission factors used in calculations are selected based on the best currently available. Additional information on quality assurance can be found in the accompanying Verification Report.

Sustainable event planning and reporting is assessed against the internationally recognised ISO 20121.

THERE ARE 6 GREENHOUSE GASES: CO_2, CH_4, N_20, HFCS, PFCS & SF_6. EMISSIONS ARE STANDARDISED AND REPORTED AS CO_{2E}, OR CARBON DIOXIDE EQUIVALENT

1.World Resources Institute: 2004 GHG Protocol Corporate Standard

2.International Standard for Organisation 20121 - Event Sustainability Management Systems

SUSTAINABLE EVENT PROGRAMME

ENVIRONMENTAL IMPACT AREAS

The Environmental Impacts of Fieldays 2019 were separated into the following areas:

- Energy*
- Waste* & Recycling
- Transport*
- Suppliers & Materials
- Water
- Attitudes & Legacy
- GHG Emissions

*Those areas marked with * contribute directly to GHG emission calculations*

Objectives are set within each Environmental Impact Area (EIA) to direct efforts and rate success. A breakdown of the EIAs that were monitored within the event boundaries, and the objectives set for Fieldays, are listed in Table 1.

FIELDAYS 2019 IS COMMITTED TO SUSTAINABLE EVENT MANAGEMENT ACROSS ALL AREAS OF EVENT PLANNING AND STAGING. FIELDAYS AIMS TO SHOWCASE EXCELLENT ENVIRONMENTAL STEWARDSHIP AS AN EXAMPLE TO NEW ZEALAND'S AGRICULTURAL INDUSTRY, IMPROVING THE MANAGEMENT OF EVENT SUSTAINABILITY BY MONITORING ENVIRONMENTAL IMPACTS THAT CAN BE RECUCED IN FUTURE YEARS. NEW ZEALAND NATIONAL FIELDAYS SOCIETY AIMS TO BE A LEADER IN STAGING SUSTAINABLY MANAGED EVENTS.

Table 1: Fieldays 2019 Objectives

Scope	Objectives
Energy	1. Reduce energy emissions per exhibitor back to Base Year levels through a exhibitor sustainability levy. 2. Investigate carbon mitigation or conservation programmes that may align with the exhibitor offset levy. 3. Plan logistics around introducing an exhibitor sustainability levy. 4. Communicate positive environmental messages around these programmes to exhibitors. 5. Trial a small solar powered site, 6. Use online and social media communications to share energy savings.
Waste & Recycling	1. Divert 50% of all waste from landfill. 2. Strongly encourage compostable packaging in order to collect >1,000 kg compostable material. 3. Introduce Sustainable Waste Partner scheme with key exhibitors. 4. Continue sorting of hot zones waste. 5. Continue to promote composting of food and coffee grinds across site. 6. Expand composting to sorting and composting of commercially compostable serveware and coffee cups. 7. Hold a waste workshop with exhibitors and vendors to gather ideas, opportunities and issues.
Transport	1. Further incetivise bus travel to lift bus patronage to 6% of all visitors . 2. Communicate the benefits for everyone in terms of reduced traffic congestion when shared transport is used. 3. Prioritise the reduction of air travel emissions among staff and delegates.
Suppliers & Materials	1. Double App downloads to 70,000. 2. Promote ticket downloads as well as Apps to reduce need for printed tickets. 3. Incorporate digital over printed paper into daily Mystery Creek HQ practices.
Water	1. Determine water usage per flushed toilet. 2. Work with grounds staff to identify which metres services which areas.

BOUNDARY

A boundary that includes event areas which will contribute to GHG emissions is also decided on.

Setting the boundary for an event can be difficult as events are often made up entirely of indirect GHG emission sources.

Indirect sources are those which event organisers do not directly own or control, but have indirectly contributed to.

For example, event organisers usually hire venues to stage their event, the operation of which may be left up to the venue owner as part of the lease agreement.

This would be an indirect emission source.

This is in contrast to direct GHG emission sources, which are those that event organisers own or control.

For example company-owned cars driven by event organisers.

Boundaries for Fieldays 2019 are depicted in Figure 1.

BENCHMARKING

Benchmarking is a valuable tool for NZ National Fieldays Society to compare sustainability strategies employed at the various events held there, and the differences in challenges and successful outcomes at each.

Each event is unique in size, audience and challenges and this needs to be taken into account when making comparisons, however, benchmarking in this way allows lessons learned to be shared and can set a standard of best practice for sustainable events at Mystery Creek.

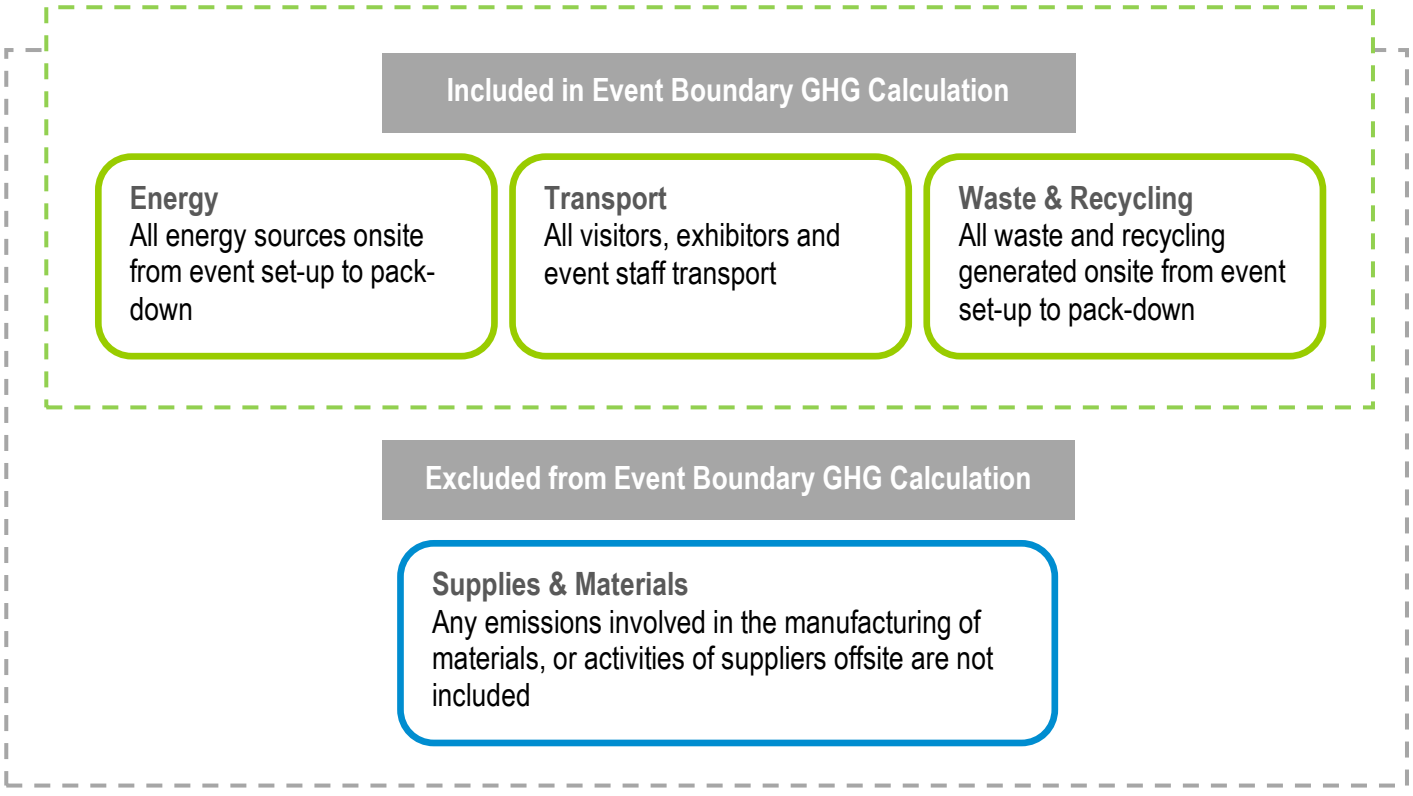


Figure 1: Event Boundaries Fieldays 2019

METHODOLOGY

Instep provided independent monitoring throughout Fieldays 2019 and put together the calculations included in this report.

Instep uses the International Standard 20121 for Event Sustainability Management Systems during event planning phases, and the internationally recognised ISO 14064-1 to calculate GHG emissions. Emission factors used in calculations are the most current available for the particular source.

The second stage involves collecting data (both quantitative and qualitative) throughout the event, so that conclusions can be drawn around whether objectives have been met.

In order to do this, Instep staff attend the event while it is staged, collecting data independently of organisers. This is important to verify the quality and independence of the data. This is then backed up with other secondary data including energy bills and contractor invoices.

For GHG emissions in particular, strict protocols around calculation are in place. Instep uses the internationally recognised ISO 14064-1 to calculate GHG emissions and ISO 14064-3 to verify. Compliance against ISO 20121 is assessed post event to certify the event as a Sustainable Event.

BASE YEAR

A base year is a year for which there is good quality GHG and sustainability data available that can be used as a baseline to monitor future reduction success. Fieldays' base year is 2012, the first year an environmental monitoring programme was put in place. Comparisons are also made between the more recent previous events.

CALCULATION METHODOLOGY ACTIVITY DATA X EMISSION FACTOR = GREENHOUSE GAS EMISSIONS, TONNE CARBON DIOXIDE EQUIVALENT, T CO_{2E}

GHG

Emission Sources

"Greenhouse Gas Emissions from an event come from a wide range of sources including suppliers, attendees and hired equipment"

ENERGY

137.12 tonne CO_{2e}
191,152 Kilowatts Electricity,
31,464 Litres Fuel,
10,825 Kilograms LPG

Energy consumed in equipment is central to any event.

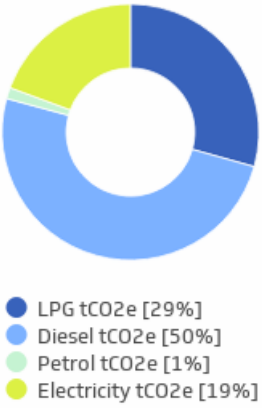
Energy emission sources at Fieldays Mystery Creek site include electricity consumed in event buildings over event dates, as well as Mystery Creek office electricity in the month leading up to the event.

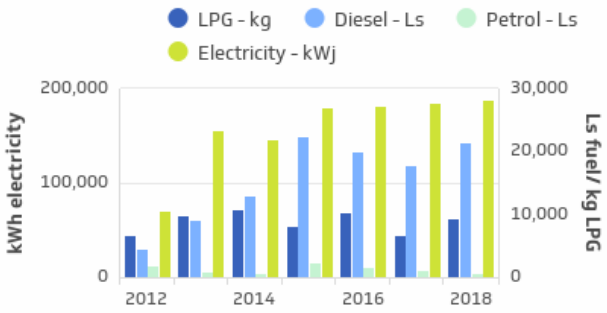
Diesel and petrol use is from event vehicles (utes, forklifts etc.) and generators around the site that are re-fueled at an onsite tank as well as being used to run portable lighting towers, particularly in car parks. LPG includes the use of LPG in tanks brought on-site by food stalls and exhibitors, as well as use by the Fieldays Herringbone restaurant.

Data was collected during the event through surveys and meter readings, and followed up post event with energy invoices. Details of all activity data for the energy areas, the associated calculated emissions, and the percentage change from last year's results are shown on the following page in Table 2.

Total 2019 Fieldays' emissions from all energy sources are 137.12 tonne CO_{2e}, 25% higher than in 2018. Diesel has not only the largest footprint at 80.08 tCO_{2e}, but these emissions are 36% higher than 2018. Other liquid fuels, petrol and LPG, have increased by 148% and 16% respectively.

TOTAL GREENHOUSE GAS EMISSIONS FROM ENERGY SOURCES IN 2018 ARE 25% HIGHER THAN 2018





Long Term Energy Objective - 2020

1. Offset energy per exhibitor to Base Year levels.

$1.60 offset dollars/ exhibitor

will save...

137 tonne CO2e

across 1,067 exhibitors

$1,703 total offset dollars

Table 2: Energy Emissions & Use Fieldays 2019

	Emission Source	Data Source	2019 Activity Data	% Change Activity Data vs. 2018	2019 GHG Emissions (tCO2e)	% Change GHG Emissions vs. 2018	2018 Activity Data	2018 GHG Emissions (tCO2e)
Electricity			**kWh**		**t CO2e**			
	Sub A event buildings	Meter readings	45,207	↓8%	4.42	↓13%	48,986	5.05
	Sub B event buildings	Meter readings	18,281	↓32%	1.79	↓35%	26,824	2.76
	Sub C event buildings	Meter readings	78,565	↑11%	7.68	↑5%	71,037	7.32
	Sub D event buildings	Meter readings	32,817	↑2%	3.21	↓3%	32,178	3.31
	Mystery Creek	Meter readings	13,020	↑32%	1.27	↑26%	9,840	1.01
	Other Sites	Meter readings	2,945	↑533%	0.31	↑513%	465	0.05
	Total Electricity		**191,152**	**1%**	**20.09**	**↓6%**	**189,369**	**21.34**
NB: The total electricity GHG emissions include an additional 1.41 tCO2e to account for transmission losses.								
Diesel			**Ls**		**tCO2e**		Ls	tCO2e
	Total Diesel		**29,769**	**↑27%**	**80.08**	**↑36%**	**21,585**	**58.71**
Petrol			**Ls**		**tCO2e**		Ls	tCO2e
	Total Petrol		**1,695**	**↑147%**	**4.15**	**↑148%**	**687**	**1.68**
LPG			**kg**				kg	
	Onsite tank	Gas invoice	2,594	↑48%	7.86	↑48%	1,748	5.3
	Food stalls	Onsite survey	1,512	↓32%	4.58	↓32%	2,236	6.78
	Exhibitors	Onsite survey	6,719	↑26%	20.36	↑26%	5,337	16.17
	Total LPG		**10,825**	**↑16%**	**32.8**	**↑16%**	**9,321**	**28.24**
TOTAL GHG Emissions					**137.12**	**↑25%**		**109.97**

ENERGY OBJECTIVES:

1.Reduce energy emissions per exhibitor back to Base Year levels through a exhibitor sustainability levy.

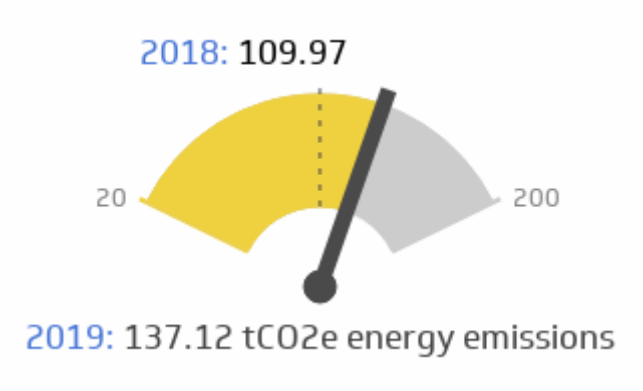
2. Investigate carbon mitigation or conservation programmes that may align with the exhibitor offset levy.

4. Plan logistics around introducing an exhibitor sustainability levy.

3. Communicate positive environmental messages around these programmes to exhibitors.

5. Trial a small solar powered site, for example partnering with Nomad coffee carts.

6. Use online and social media communications to share energy savings.



OBJECTIVE 1: !

REDUCE ENERGY EMISSIONS PER EXHIBITOR BACK TO BASE YEAR LEVELS THROUGH AN EXHIBITOR SUSTAINABILITY LEVY.

OBJECTIVE 2: —

INVESTIGATE CARBON MITIGATION OR CONSERVATION PROGRAMMES THAT MAY ALIGN WITH THE EXHIBITOR OFFSET LEVY.

OBJECTIVE 4: —

PLAN LOGISTICS AROUND INTRODUCING AN EXHIBITOR SUSTAINABILITY LEVY.

Whilst Objective 1 was not met as an exhibitor sustainability levy was not put into place, discussions around how this would work in practice and the types of environmental causes it would support were undertaken with senior management. Discussions will continue in 2020.

OBJECTIVE 3: ✓

COMMUNICATE POSITIVE ENVIRONMENTAL MESSAGES AROUND THESE PROGRAMMES TO EXHIBITORS.

For the first time in 2019, a Sustainable Exhibitor Award was integrated into the event. As part of this award, exhibitors were judged against criteria on energy saving measures. The winner was Zespri, pictured here, who incorporated “bike powered” energy into their innovative exhibitor site.

Energy Benchmarking						
	Fieldays 2019	Fieldays 2018	Fieldays 2017	Fieldays 2012 (Base Year)	Equidays 2017	T.H.E. Expo 2017
	4 days	4 days	4 days	4 days	3 days	3 days
	128,747 visitors	131,868 visitors	133,588 visitors	128,271 visitors	22,209 visitors	13,507 visitors
	1,067 exhibitors	1,059 exhibitors	998 exhibitors	1,000 exhibitors	198 exhibitors	182 exhibitors
Total Energy CO2e	137.12	109.33	90.01	N/A	7.92	6.47
Total kWh	191,152	185,914	185,914	N/A	12,818	14,421
kWh/ Attendee	1.48471032	1.41	1.39	N/A	0.58	1.07
Kwh/ Exhibitor	179.149016	179	186.29	N/A	64.74	79.24
Total LPG kg	10,825	9,321	6,759	N/A	407	377
LPG kg/ Exhibitor	10.1456688	8.8	6.77	N/A	2.06	2.07
Total Fuel Ls	31,463	22,272	19,093	N/A	2,393	377
Fuel Ls/ Exhibitor	29.49	21.03	19.13	N/A	2.07	2.07

OBJECTIVE 5: !

TRIAL A SOLAR POWERED SITE.

This objective was not directly pursued in 2019,. Discussions around how solar power may or may not work onsite were had in the lead up to the event. Future options to consider include wind power, possibly in conjunction with NZ National Fieldays Society's suppliers.

Replacing Sub B event buildings with wind energy would save...

1.8 tonne CO2e

18,281 kWh electricity

equivalent of 2.6 NZ household's annual energy use

OBJECTIVE 6: ✓

USE ONLINE AND SOCIAL MEDIA COMMUNICATIONS TO SHARE ENERGY SAVINGS.

Media and communications from NZ National Fieldays Society included a substantial amount on sustainability and environmental initiatives in 2019. Although this was not specific to energy; increased communications with exhibitors in particular remains a focus.

ENERGY GOALS, BEYOND 2020:

Utilising achievements and outcomes of the 2019 Energy Objectives allows Fieldays to set future sustainability goals that will have maximum impact.

Goals are set on a short (next event), medium (2 years) and long term (5 years) time-scale with the aim to challenge the status quo with an ambitious long term goal, yet scale this achievably using shorter term objectives.

2020 ENERGY GOALS:

- Work with grounds staff to discuss efficiency measures for onsite fuels.
- Investigate carbon mitigation or conservation programmes that may align with the exhibitor offset levy.
- Communicate positive environmental messages around these programmes to exhibitors.
- Plan logistics around introducing an exhibitor sustainability levy.
- Invest in onsite alternative energy solutions by leveraging exhibitor sustainability levy.
- Collect data to indicate energy usage per exhibitor site.

Short Term - 2019

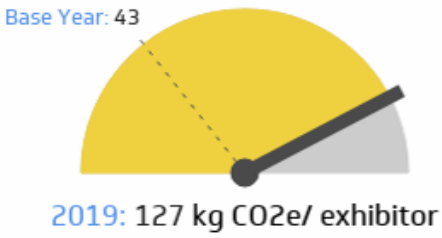
Reduce energy emissions per exhibitor back to Base Year levels through a exhibitor sustainability levy.

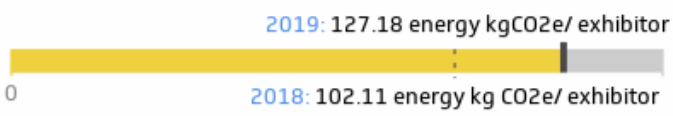
Mid Term - 2020

Invest in onsite alternative energy solutions by leveraging exhibitor sustainability levy.

Long Term - 2023

Mitigate all energy emissions through a per exhibitor sustainability levy.





Exhibitors such as Xero are keen to discuss alternative energy sources.

Zespri receiving the Sustainable Exhibitor Award on their bike powering smoothie makers.

ENERGY FAST FACTS

Fieldays 2019

Energy emissions rose by 25% against 2018.

25%

Offsetting exhibitor energy emissions would cost

$1.60

Per exhibitor

WASTE & RECYCLING

73,534 Kilograms Total Waste
29,859 Kilograms Recycling
41% Landfill Diversion
10.48 t CO_{2e}

Table 4: Waste Emissions & Generation Fieldays 2019

Venue	2019 Activity Data			Data Source	2019 GHG Emissions (tCO2e)		2018 Activity Data		2018 GHG Emissions (tCO2e)
	Total weight (kilogram)	% Change vs. 2018 (kilograms)	Total volume (cubic metre)			% GHG Change vs. 2018 (tCO2e)	Total weight (kilogram)	Total volume (cubic metre)	
Landfill	43,675	↓19%	809	waste contractor weights	10.48	↓56%	53,960	999	23.74
General Recycling	4,105	↑25%	228	waste contractor weights			3,294	183	
Cardboard Recycling	13882	↓25%	578	waste contractor weights			18,545	773	
Glass Recycling	772	↓4%	1	waste contractor weights			800	1	
Wood Recycling	9,600	↓8%	60	waste contractor weights			10,480	66	
Organic Composting	1,500	↑97%	19	waste contractor weights			760	10	
TOTAL Waste	**73,534**	**↓16%**	1,696	waste contractor weights			**87,839**	**2,031**	
TOTAL Recycling	**29,859**	**↓12%**	887	waste contractor weights			**33,879.00**	**1,032**	
Diversion Rate	**41%**	**↑4%**	52%				**39%**	**51%**	

Consumption in general, and the production of waste, have numerous negative environmental impacts. In particular, large volumes of waste sent to landfill consume resources and contribute to GHG emissions through waste breakdown and emission of methane gas. Waste diversion through the utilisation of recycling and compost bins is one of the easiest ways to encourage attendee participation and education in the event's sustainability journey.

Waste is one of Fieldays' greatest challenges and opportunities. As pressures increase on New Zealand's waste and recycling processing systems, new services and innovative ways of dealing with waste streams are becoming more accessible.

Continuing the progress seen over the last five years, Fieldays 2019 has recorded the highest landfill diversion rate so far. The successes and challenges met whilst working towards the 2019 Waste Objectives are detailed in this section.

THE LANDFILL DIVERSION RATE FOR FIELDAYS 2019 IS THE HIGHEST EVER ACHIEVED, AT

41%

WASTE OBJECTIVES:

Waste

- 1. Divert 50% of all waste from landfill.
- ✓ 2. Strongly encourage compostable packaging in order to collect >1,000 kg compostable material.
- ✓ 3. Introduce Sustainable Waste Partner scheme with key exhibitors.
- ✓ 4. Continue sorting of hot zones waste.
- ✓ 5. Continue to promote composting of food and coffee grinds across site.
- ✓ 6. Expand composting to sorting and composting of commercially compostable serveware and coffee cups.
- ! 7. Hold a waste workshop with exhibitors and vendors to gather ideas, opportunities and issues.

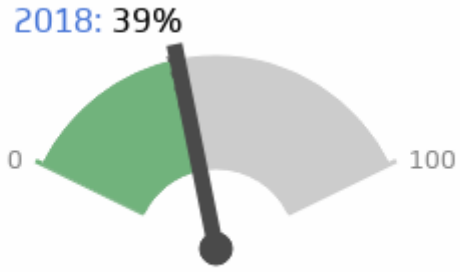
▼ -10,285 kg less landfill waste in 2019

equivalent of...

190 cubic metres waste

63 landfill skip lifts

>100,000 apples



2019: 41 % landfill diversion rate

OBJECTIVE 1: —

DIVERT 50% OF ALL WASTE FROM LANDFILL.

2019 marks another year of improvement towards Fieldays ultimate goal of diverting 50% of all waste from landfill, this year coming in at 41%. The improvements year on year are due to increased engagement with exhibitors and attendees as well as several ambitious new initiatives. A full commercial composting collection including all compostable packaging from food courts was undertaken in 2019. In the bar, suppliers Good George invested in a reusable drinking cup system, eliminating the need for single use plastic cups.

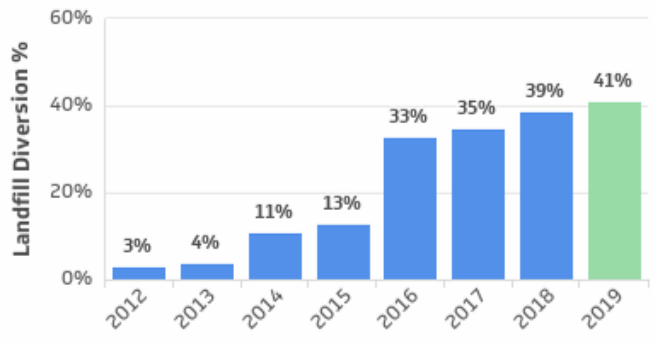
OBJECTIVE 2: ✓

ENCOURAGE COMPOSTABLE PACKAGING TO COLLECT >1,000 KGS COMPOSTABLE MATERIAL.

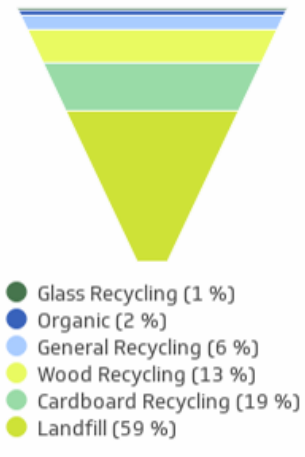
It has been noted during waste sorting this year that the vast majority of exhibitors are now using compostable packaging and coffee cups, including food vendors and those with onsite corporate hospitality.

2019's composting target weight of 1,000 kg was surpassed and 1,500 kilograms of food, coffee grinds, compostable service-ware and compostable coffee cups were collected and commercially composted at a nearby facility. This has laid the ground work well for mandating compostable packaging in 2020.

Historical Landfill Diversion



Waste Profile



OBJECTIVE 3:

INTRODUCE 'SUSTAINABLE WASTE PARTNER' SCHEME WITH KEY EXHIBITORS.

This objective was one of 2019's greatest successes, with 42 key exhibitors contacted prior to the event and more than half choosing to be part of the scheme.

Throughout the event, other exhibitors indicated a willingness to be part of the scheme in future.

This scheme enabled exhibitors to get access to crucial waste sorting logistics information, enabling them to take advantage of recycling and composting services for their sites' own hospitality.

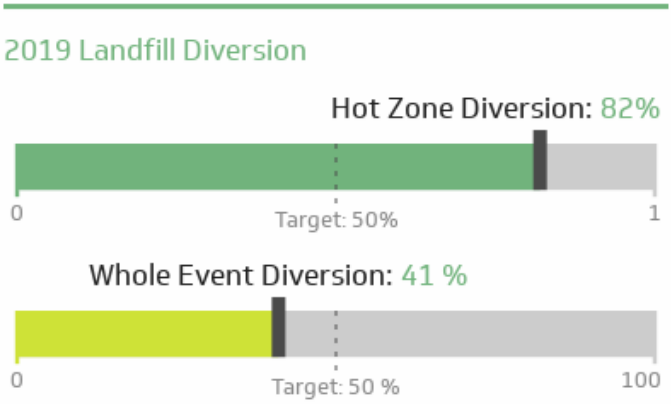
SUCCESS	POTENTIAL
More than 20 exhibitors participated in 2019's Sustainable Waste Partner initiative, allowing them to better sort waste from their own site.	In future it is likely not only that the number of exhibitors included in this initiative will increase, but also that those already in the scheme will further improve their waste diversion.

OBJECTIVE 4:

SORT COMPOSTABLE MATERIAL IN HOT ZONES.

The graph below highlights the success of sorting waste material coming from "Hot Zones". "Hot Zones" include all food courts, key exhibitors with onsite hospitality and washrooms.

Currently Hot Zones only represent a fraction of the total 73,534 kg of waste produced at Fieldays, however, the 1,000 kg of waste sorted from Hot Zones daily contains the highest proportion of compostable and recyclable material, thus is the logical place to focus sorting efforts.



OBJECTIVE 5:

CONTINUE TO PROMOTE COMPOSTIN OF FOOD AND COFFEE GRINDS ACROSS SITE.

OBJECTIVE 6:

EXPAND COMPOSTING TO COMMERCIALLY COMPOSTABLE SERVICEWARE AND COFFEE CUPS.

The success of these objectives is reflected in the 1,500 kg of composting collected. Coffee vendor Allpress is a key partner in this, sending all coffee grinds to be composted. For the first time this year, Fieldays' onsite caterer was a regular user of the provided composting bin for their food scraps, and was also diligent with placing service-ware into composting bins, as all provided was 100% compostable.

Up until 2018 only organically compostable materials were able to be collected and composted.

OBJECTIVE 7: !

HOLD A WASTE WORKSHOP WITH EXHIBITORS AND VENDORS.

This objective was not fully explored in 2019. However it will remain as an objective for 2020 due to the successful partnership programme in 2019 and encouraging ad-hoc conversations with food vendors.

WASTE GOALS, BEYOND 2020:

Utilising the achievements and outcomes of the 2019 Waste Objectives allows Fieldays to set future sustainability goals that will have maximum impact. Goals are set on a short (next event), medium (2 years) and long term (5 years) time-scale with the aim to challenge the status quo with an ambitious long term goal, yet scale this achievably using shorter term objectives.

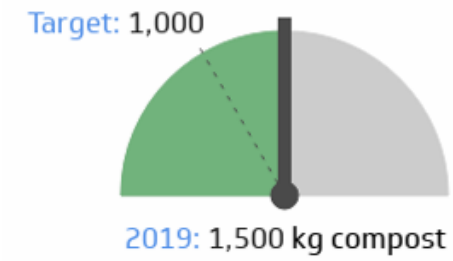
2020 WASTE GOALS:

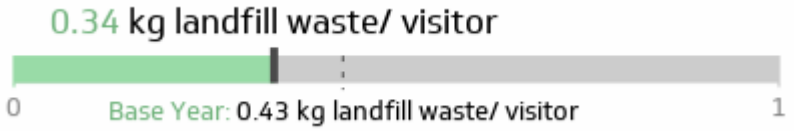
- Continue working with Sustainable Waste Partner Exhibitors and expand this programme in 2020.
- Use Waste Partners as a trial to work towards "single-use plastic free Fieldays".
- Hold a waste workshop with exhibitors and vendors to gather ideas, opportunities and issues pre-event.
- Mandate the use of compostable serve-ware and coffee cups for food stalls and exhibitor hospitality.
- Liaise with food vendors through Mystery Creek spokesperson to set expectations pre-event.
- Investigate working with the supplier of fencing posts made from recycled material to recycle Fieldays plastic.

Short Term - 2019
Mandate compostable packaging for food vendors in order to collect >1,000 kg compostable material.

Mid Term - 2020
Work with Hot Exhibitor Partners to trial "Plastic Free Frieldays".

Long Term - 2023
Roll out "Plastic Free Fieldays" to all exhibitors and food vendors.





	Waste Benchmarking					
	Fieldays 2019	**Fieldays 2018**	**Fieldays 2017**	**Fieldays 2012 (Base Year)**	**T.H.E Expo 2017**	**Equidays Mystery Creek 2017**
	4 days 128,747 visitors 1,067 exhibitors	**4 days 131,868 visitors 1,059 exhibitors**	**4 days 133,588 visitors 998 exhibitors**	**4 days 128,271 visitors 1,000 exhibitors**	**3 days 13,507 visitors 182 exhibitors**	**3 days 22,209 visitors 198 exhibitors**
GHG Emissions (tCO2e)	10.48	23.74	28.82	24.5	2.42	0.8
Total Waste (kg)	73,534	87,839	99,288	56,598	7,581	1,658
Total Recycling (kg)	29,859	33,879	34,312	1,248	5,461	795
Diversion Rate	41%	39%	35%	2%	28%	48%
Waste (kg)/ Visitor	0.57	0.67	0.64	0.44	0.56	0.07
Waste (kg)/ Exhibitor	69	83	85	57	42	8

Hyundai participating in the Waste Partnership Scheme.

Good Geroge's re-usable cups in action, eliminating the need for single use plastic in the bar.

The majority of waste now coming from food courts is able to be composted.

Clear signage remains the most effective way to get waste diverted.

WASTE FAST FACTS

Fieldays 2019

Highest landfill diversion rate recorded

41%

10,285 fewer kilograms of waste was sent to landfill

63 bin lifts

TRANSPORT

3,838.48 tonne CO_{2e}

22,625,569 pkm Total Travel

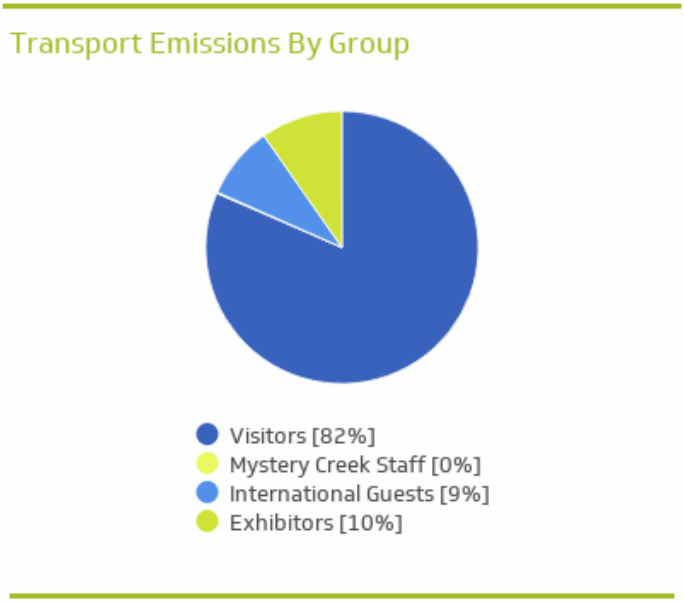
9,224,295 pkm Air Travel
13,220,693 km Car Travel
167,819 pkm Truck Travel
10,817 km Bus Travel

The Impact of Transport can be one of the largest in terms of event GHG emissions, as the scope of this source extends to event visitors, exhibitors and organisers.

Fieldays also attracts a large number of international guests and exhibitors so has a high proportion of air travel included in the transport footprint.

Despite the fact much of these emissions come from transport choices beyond the control of Mystery Creek staff, it remains important to include these in the event carbon footprint calculations in order to respect the impact an event of this scale has.

Fieldays has also worked hard over the years on reducing those transport aspects they can control, such as introducing a free bus service and making changes to staff vehicle use and air travel.



TRANSPORT OBJECTIVES:

- ✓ 1. Further incentivise bus travel to lift bus patronage to 6% of all visitors .
- ✓ 2. Communicate the benefits for everyone in terms of reduced traffic congestion when shared transport is used.
- — 3. Prioritise the reduction of air travel emissions among staff and delegates.

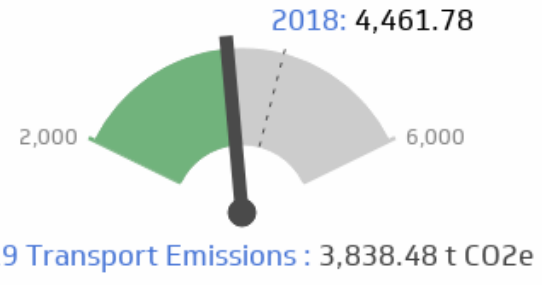


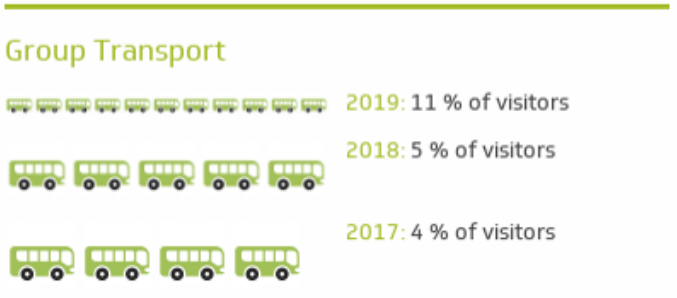
Table 5: Transport GHG Emissions Fieldays 2019

	Emission Source	2019 Activity Data	% Change Activity Data vs. 2018	Data Source	2019 GHG Emissions (tCO2e)	% Change tCO2e vs. 2018	2018 Activity Data	2018 GHG Emissions (tCO2e)
Visitors	Air Travel (pkm)	**4,711,646**	↓26%	survey	**550**	↓23%	6,400,735	713.53
	Bus Service (km)	**10,817**	↑11%	operator information	**18.34**	↓26%	9,711	24.82
	Medium Car (km)	**12,229,228**	↓12%	survey	**2,555.91**	↓12%	13,891,491	2903.32
	Boat (Ls)	**710**	0%	previous data	**2.09**	0%	710	2.09
	Helicopter (Ls)	**1,236**	0%	previous data	**2.86**	0%	1,236	2.86
	Total visitors travel	**16,953,636**	**↓17%**		**3,129.20**	**↓14%**	**20,308,811**	**3646.62**
Mystery Creek Staff	Air Travel (pkm)	**7,744**	↓83%	travel records	**1.25**	↓78%	46,235	5.71
	Staff Vehicles (Ls)	**1,332**	↓10%	odometer readings	**3.58**	↓11%	1,481	4.03
	Total staff travel	**9,076**	**↓81%**		**4.83**	**↓50%**	**47,716**	**9.74**
International Guests	Air Travel (pkm)	**3,530,240**	↓14%	contact list	**332.09**	↓1%	4,102,578	335.05
	Total international travel	**3,530,240**	**↓14%**		**332.09**	**↓1%**	**4,102,578**	**335.05**
Exhibitors	Air Travel (pkm)	**974,665**	↓16%	survey	**111.86**	↓17%	1,155,462	135.11
	Medium Car (km)	**813,923**	↓24%	survey	**188.02**	↓24%	1,065,831	246.21
	Large Car (km)	**176,210**	↓25%	survey	**48.99**	↓25%	235,580	65.49
	Truck (km)	**167,819**	↓<1%	survey	**23.49**	↓<1%	168,272	23.56
	Total exhibitors travel	**2,132,617**	**↓19%**		**372.36**	**↓21%**	**2,625,145**	**470.36**
TOTAL		**22,625,569**	**↓16%**		**3,838.48**	**↓14%**	**27,084,250**	**4,461.78**

OBJECTIVE 1:

LIFT BUS PATRONAGE TO 6%.

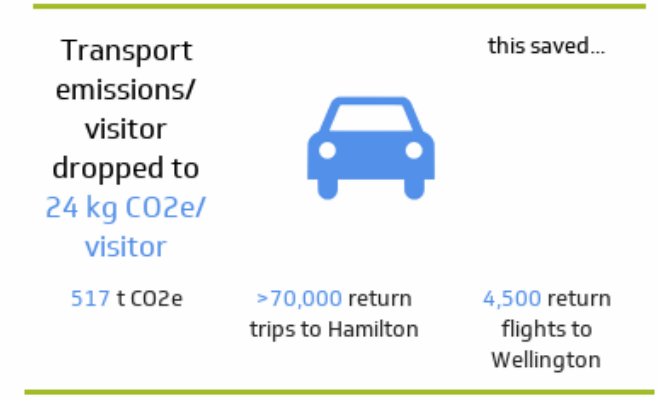
In 2019 1,375 Fieldays visitors chose to ride the bus from depots at The Base, The Transport Centre, Cambridge and Te Awamutu. All but Te Awamutu saw increased patronage and carried more people. In total this saw the percentage of bus passengers more than double from 5% last year to 11% of visitors in 2019.

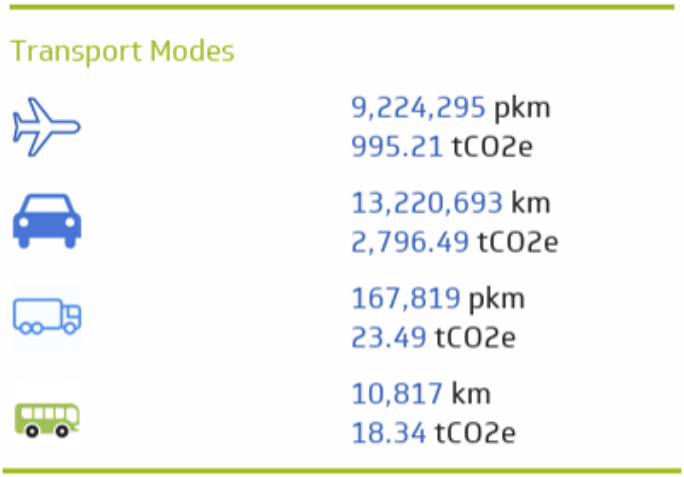


OBJECTIVE 2:

COMMUNICATE THE BENEFITS OF SHARED TRANSPORT.

Offering free bus services from 4 transport hubs has many benefits when it comes to easing traffic congestion for all Fieldays visitors. Based on a 2 person carpooling model it is estimated that the 1,375 bus passengers took 687 cars off the road. Pre-event communications continue to help promote this as a viable option for people.





OBJECTIVE 3:

PRIORITISE THE REDUCTION OF AIR TRAVEL EMISSION AMONGST STAFF AND DELEGATES.

Air travel dropped dramatically for Mystery Creek staff in 2019 (89%) and also for VIP delegates, with a reduction of 14%.

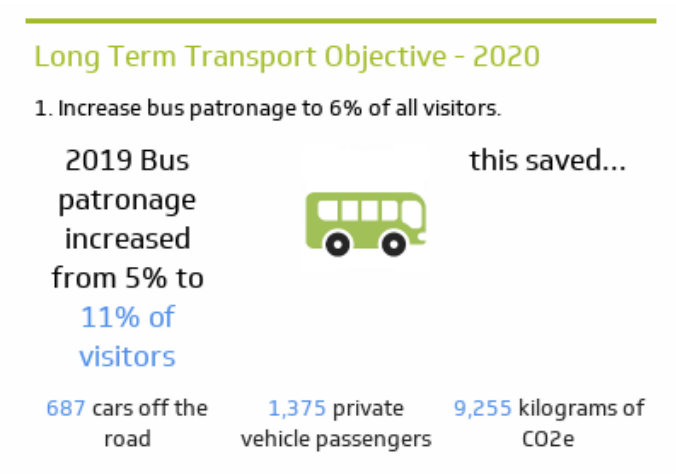
MYSTERY CREEK STAFF TRANSPORT EMISSIONS DROPPED A HUGE

81%

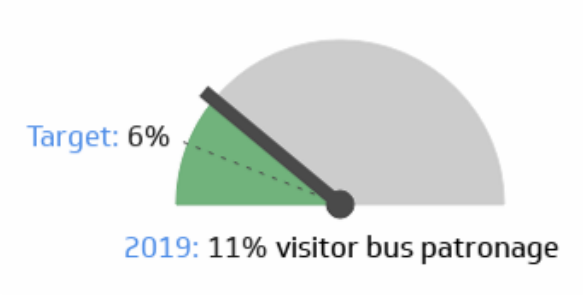
IN 2019

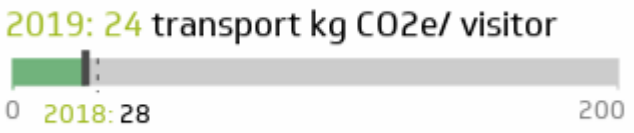
TRANSPORT GOALS, BEYOND 2020:

Utilising the achievements and outcomes of the 2020 transport objectives allows Fieldays to set future sustainability goals that will have maximum impact. Goals are set on a short (next event), medium (2 years) and long term (5 years) time-scale with the aim to challenge the status quo with an ambitious long term goal, yet scale this achievably using shorter term objectives.



Short Term - 2019	Mid Term - 2020	Long Term - 2023
Further incentivise bus travel to lift bus patronage to 6% .	Enhance car parking options at the Park n Rides to lift bus patronage to 15%.	Continually promote these initiatives to lift bus patronage to 20%.





2020 TRANSPORT ACTIONS:

- Introduce a staff travel policy to check the "offset" option when offered by participating airlines.
- Encourage international visitors to do the same, in accordance with Fieldays' sustainability goals.
- Continue to promote and incentivise bus travel.
- Communicate the benefits for everyone in terms of reduced traffic congestion when shared transport is used.

Transport Benchmarking						
	Fieldays 2019	**Fieldays 2018**	**Fieldays 2017**	**Fieldays 2016**	**T.H.E. Expo 2017**	**Equidays Mystery Creek 2017**
	4 days 128,747 visitors 1,067 exhibitors	**4 days 131,868 visitors 1,059 exhibitors**	**4 days 133,855 visitors, 998 exhibitors**	**4 days 130,684 visitors, 1,010 exhibitors**	**3 days 13,507 visitors, 182 exhibitors**	**3 days 22,209 visitors 198 exhibitors**
GHG Emissions (tCO2e)	3,838.48	4,461.78	5,528.13	7,371.20	1,768.38	897.27
Largest Transport Impact	Attendees 82%	Attendees 82%	attendees 79%	attendees 87%	attendees 94%	attendees - 97%
Air Travel Emissions	26%	27%	32%	54%	32%	14%
kgCO2e/ Attendee	30	34	40	60	13	30
% Carpooling	90%	90%	86%	87%	87%	87%

TRANSPORT FAST FACTS

Fieldays 2019

Bus transport took 687 cars off the road

Transport emissions per visitor saved

517 tonnes of carbon

Adverts for the free bus.

TOTAL GREENHOUSE GAS EMISSIONS

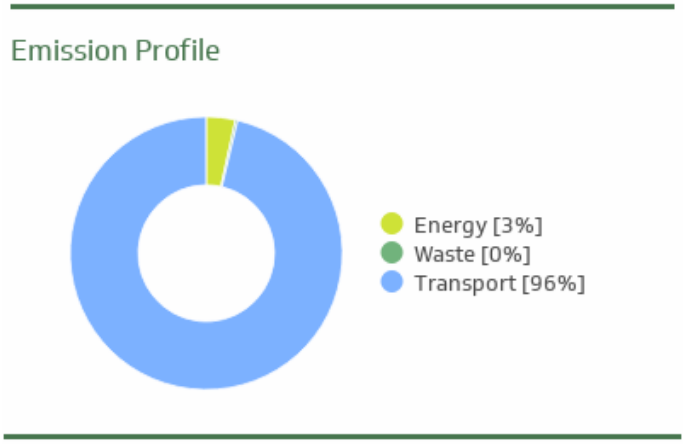
3,986.08 tonne CO_{2e}

Table 7: Total Greenhouse Gas Emissions Fieldays 2019

Emission Source	2019 GHG Emissions (tCO2e)	2018 GHG Emissions (tCO2e)	% Change GHG Emissions vs. 2018
Energy	137.12	109.33	↑**25.42**
Waste	10.48	23.74	↓**55.85**
Transport	3,838.48	4,461.78	↓**13.97**
Total GHG Emissions	**3,986.08**	**4,594.84**	↓**13.31**
kg CO2e/ visitor	**31**	35	↓**11.43**

Fieldays' carbon footprint is made up of all of the Greenhouse Gas Emission sources that have been detailed in the previous sections of this report, namely energy, waste and transport.

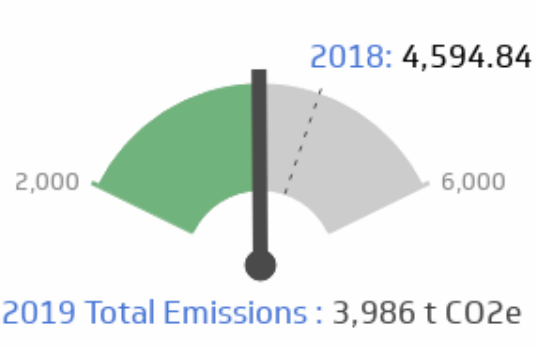
Whilst actions to reduce emissions need to be made within each of these three areas, the event's total carbon footprint and the footprint intensity per visitor, act as an overall indicator of progress made towards sustainability goals.



GHG EMISSIONS OBJECTIVES:

✓ 1. Lower emissions per visitor by 1% versus the previous year, at a total of 2% lower than 2018.

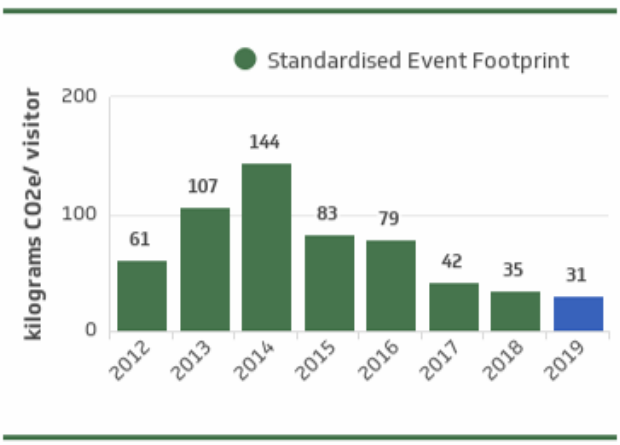
✓ 2. Track total event emissions year on year from 2012 Base Year.



OBJECTIVE 1:

LOWER 2019 EMISSIONS PER VISITOR BY 1% WHEN COMPARED WITH 2018.

Fieldays' standardised event footprint for 2019 is the lowest recorded, at 31 kilograms of CO_{2e} per visitor. This is 12% lower than 2018's value of 35 $kgCO_{2e}$/ visitor, exceeding this Objective. It is a huge 78% lower than the highest standardised footprint of 144$kgCO_{2e}$/ visitor recorded in 2014.



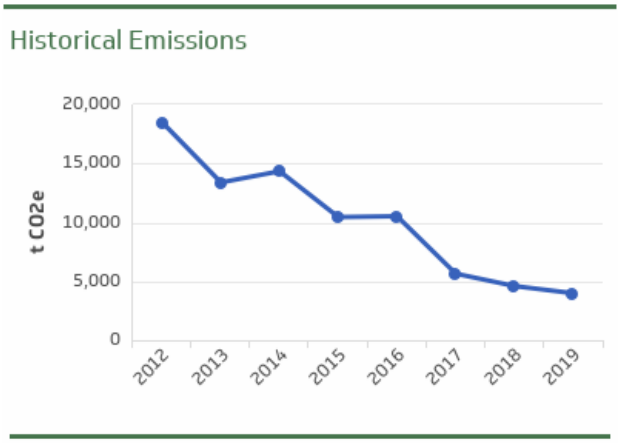
OBJECTIVE 2:

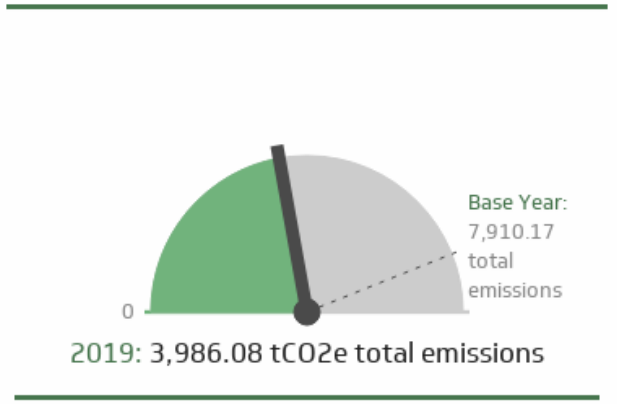
TRACK TOTAL EMISSIONS YEAR ON YEAR FROM 2012 BASE YEAR LEVELS .

Emissions are at their lowest level ever recorded in the past 8 years of Sustainable Event Management.

The 2012 event had a total carbon footprint of 7,910.17 tCO_{2e}.

The 2019 carbon footprint of 3,968.08 is 50% lower than Base Year levels, a fantastic achievement.

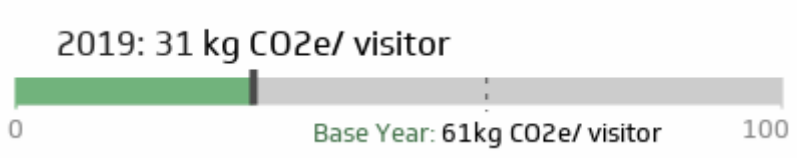




GHG EMISSION GOALS, BEYOND 2020:

Utilising the achievements and outcomes of the 2019 GHG Emissions objectives allows Fieldays set future sustainability goals that will have maximum impact. Goals are set on a short (next event), medium (2 years) and long term (5 years) time-scale with the aim to challenge the status quo with an ambitious long term goal, yet scale this achievably using shorter term objectives.

Short Term - 2019	Mid Term - 2020	Long Term - 2023
Lower emissions per visitor by 1% versus the previous year.	Lower emissions per visitor by 5% compared with 2019 levels.	Lower emissions per visitor by 10% compared with 2019 levels.



SUSTAINABILITY

MEASURES

"These do not contribute to your GHG emissions but including these sources helps you manage and reduce your consumption of resources."

MATERIALS

114,436 A4 sheets

42,394 App downloads

Table 8: Materials Fieldays 2019

Source	Data Source	2019 Activity Data (# items)	% Change vs. 2018 # items	2019 Activity Data (A4 sheets equivalent)	% Change vs. 2018 A4 sheets equivalent	2018 Activity Data (# items)	2018 Activity Data (A4 sheets equivalent)
Volunteer Handbook	office data	220	0%	1,320	↑20%	220	1,100
Tickets	office data	80,185	↓67%	6,682	↓67%	246,148	20,512
Vehicle Passes	office data	3,000	↑22%	250	↑23%	2,450	204
Prospectus	office data	0 (now online only)	↓>100%	-		0	-
Exhibitor Handbook	office data	200	↓82%	2,900	↓86%	1,100	20,350
Fieldays Programmes	office data	10,000	0%	100,000	↓86%	10,000	740,000
Ricoh Copier/ Printer	office data	3,284	↓79%	3,284	↓79%	15,767	15,767
App Download	office data	42,394	↑22%			34,801	
Total # items		**139,283**	**↓49%**			275,685	
Total # A4 sheets				**114,436**	↓86%		**797,933**

Major events such as Fieldays, rely on sharing information with exhibitors and attendees using printed materials such as handbooks and prospectuses as well as practical materials like tickets and vehicle passes. Over the past 3 years, printed materials have been increasingly replaced through electronic alternatives and the results are now being seen in 2019 results.
The use of paper by Mystery Creek staff in their office during the event lead up, is also included.

★ SUCCESS

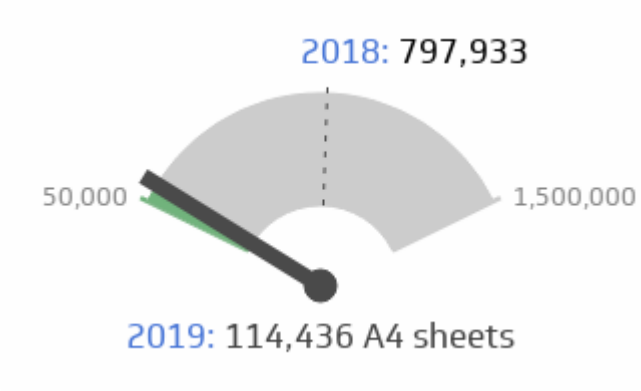
Massive reductions have been achieved in printed material numbers during 2019 including: 67% less tickets printed, 82% less exhibitor handbooks, 79% less office paper used.

▲ POTENTIAL

Now that the App is firmly established as alternative to printed materials, expect to see these numbers drop even further.

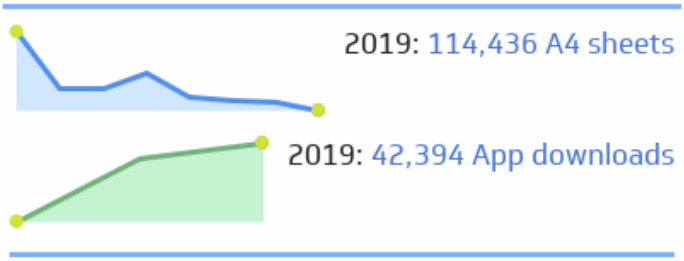
MATERIALS OBJECTIVES:

- 1. Double App downloads to 70,000.
- ✓ 2. Promote ticket downloads as well as Apps to reduce need for printed tickets.
- ✓ 3. Incorporate digital over printed paper into daily Mystery Creek HQ practices.



OBJECTIVE 1: —
DOUBLE APP DOWNLOADS TO 70,000 .

In 2019, 42,394 Apps were downloaded; so whilst Fieldays has not yet reached the 70,000 goal, progress is being made. The effects of this are being seen with massive decreases in printed handbooks and programmes.



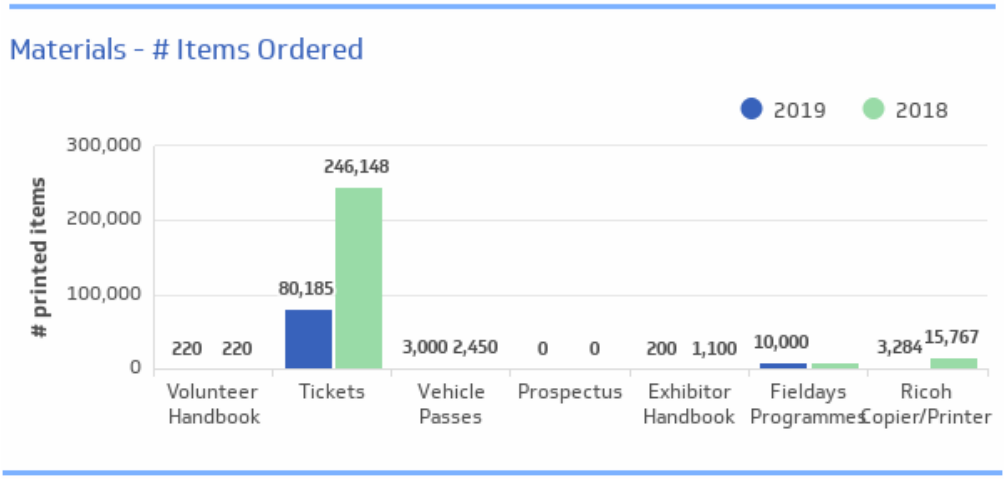
OBJECTIVE 2: ✓
PROMOTE TICKET DOWNLOADS TO REDUCE NEED FOR PRINTED TICKETS .

Tickets printed in 2019 are a huge 67% lower than what was ordered in 2018. In 2019 only 80,185 tickets were ordered and this is expected to last for the next 2 or 3 years.

Overall, the number of items ordered has dropped to 139,283 in 2018, close to 50% lower than the 275,685 ordered in 2018.

OBJECTIVE 3: ✓
INCORPORATE DIGITAL OVER PRINTED PAPER INTO DAILY MYSTERY CREEK HQ PRACTICES .

Only 3,284 items of paper were used in the Mystery Creek HQ copier in June 2019 compared to 15,767 usage in 2018, a massive 79% drop.



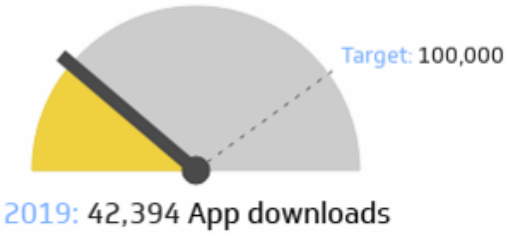
MATERIALS GOALS, BEYOND 2020:

Utilising the achievements and outcomes of the 2019 Materials Objectives allows Fieldays to set future sustainability goals that will have maximum impact. Goals are set on a short (next event), medium (2 years) and long term (5 years) time-scale with the aim to challenge the status quo with an ambitious long term goal, yet scale this achievably using shorter term objectives.

Short Term - 2019
Double App downloads to 70,000.

Mid Term - 2020
Promote ticket downloads to reduce printed tickets.

Long Term - 2023
Reach 100,000 App and ticket downloads to save 100,000 printed tickets.



2020 MATERIALS ACTIONS:

- Promote ticket downloads as well as Apps to reduce need for printed tickets.
- Incorporate digital over printed paper into daily Mystery Creek HQ practices.

Publications Benchmarking						
	Fieldays 2019	**Fieldays 2018**	**Fieldays 2017**	**Fieldays 2016**	**Fieldays 2012 (Base Year)**	**T.H.E. Expo 2017**
	4 days 128,747 visitors 1,067 exhibitors	**4 days 131,868 visitors 1,059 exhibitors**	**4 days 133,588 visitors, 998 exhibitors**	**4 days 130,684 visitors, 1,010 exhibitors**	**4 days 128,271 visitors, 1,000 exhibitors**	**3 days 13,507 visitors, 182 exhibitors**
Total A4 sheets (#)	114,436	797,933.00	1,085,557	1,379,651	7,078,350	140,538
visitor: A4 sheet ratio	1:0.8	1:8	1:9	1:10	1:55	1:10
Total printed tickets (#)	80,185	246,148	119,830	132,736	N/A	26,700

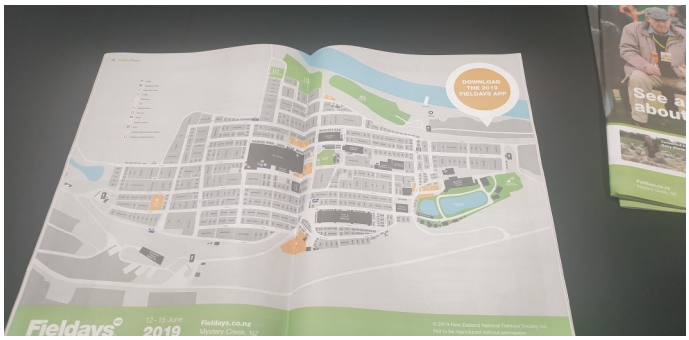
SUPPLIERS & MATERIALS FAST FACTS

Fieldays 2019
683,497 less sheets of paper were used

Saving 82 trees

App Downloads:

42,394



Promoting the Fieldays App reduces the need for these printed programmes and maps.

WATER CONSUMPTION

5,807 cubic metres

Table 10: Water Consumption Fieldays 2019

Water Meter	2019 Activity Data (m3)	Data Source	% Change m3 vs. 2018	2018 Activity Data (m3)
River process (28)	1041	Onsite meter readings	↓23%	1348
River toilet (26)	394	Onsite meter readings	↓40%	654
Golf club (41)	75	Onsite meter readings	↓53%	160
E street (16-38)	1034	Onsite meter readings	↓12%	1176
Wool Shed (5-9)	1660	Onsite meter readings	↑72%	967
MC Rd Wool Shed Gate (3)	1603	Onsite meter readings	↑80%	889
MC Rd Gates 2 & 3	0	Onsite meter readings	↓100%	1058
TOTAL	**5,807**		↓7%	**6,252**

Data note: This year a more accurate data source has been received for both 2019 and 2018. This source will be used from now on, and past years have been altered.

Including Water Conservation and waste water management into an event is an integral part of its sustainability, now and in the future.

Whether an event is an indoor or outdoor venue, it will use clean water and produce waste water. An event may consume and dispose of metered water or impact on natural waterways.

2019 data obtained was from a more accurate source than has previously been available, enabling a higher quality of data to be calculated. 2018 data has also been calculated using the same source and thus is different from previous years.

In June 2019 445,000 Ls water was saved

equivalent of...

>50,000 toilet flushes

>6,000 showers

17 water tanks

TOTAL WATER CONSUMPTION HAS

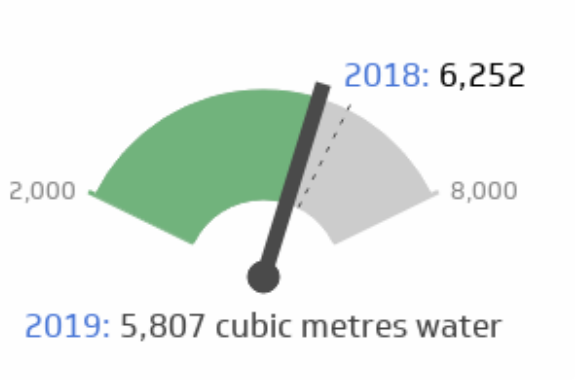
REDUCED BY 7%

COMPARED WITH 2018.

.

WATER OBJECTIVES:

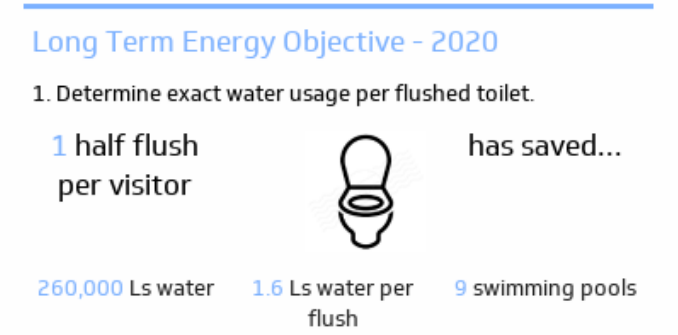
- 1. Determine water usage per flushed toilet.
- ✓ 2. Work with grounds staff to identify which metres services which areas.
- 3. Get detailed information on toilets in order to lay groundwork to reduce flush volumes.



OBJECTIVE 1: —
DETERMINE WATER USAGE PER FLUSHED TOILET.

Data from the "River toilet" water meter indicates water consumption for the month of June 2019 has dropped by 40% when compared with 2018, saving 260 cubic metres, or 260,000 litres of water.

It still needs to be established if this meter feeds only the toilets, but assuming it does, this has already lowered toilet flushes from full flush (approximately 6L per toilet to half flushes (3.1 Ls/ flush).

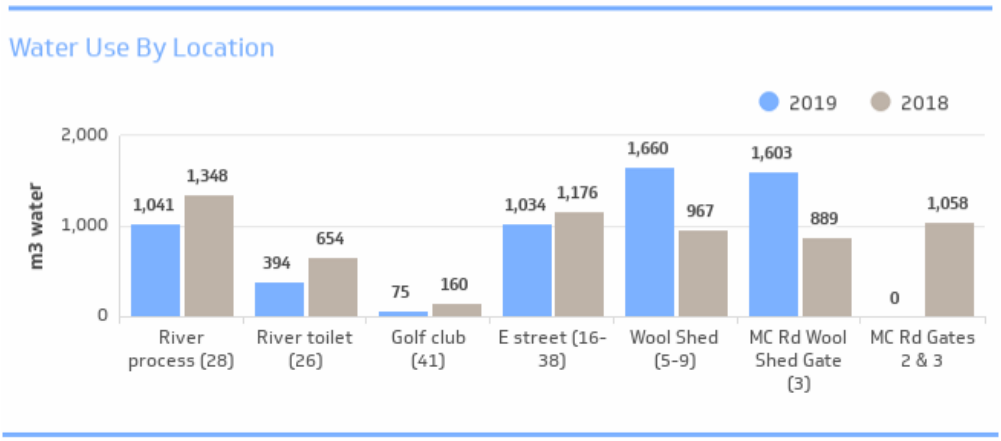


OBJECTIVE 2: ✓
IDENTIFY WHICH WATER METRES SERVICE WHICH AREAS.

Detailed water meter readings across the Mystery Creek site were used to calculate 2019 consumption data, and in turn, 2018 data was recalculated using this data of higher accuracy.

Substantial drops in consumption was logged in 5 of the 7 meters, contributing to the overall drop of 7% in consumption, or an actual saving of 445 cubic metres.

There were issues with several pumps across the site during the 2019 and some were turned off, so consumption may jump again in 2020.



WATER GOALS, BEYOND 2019:

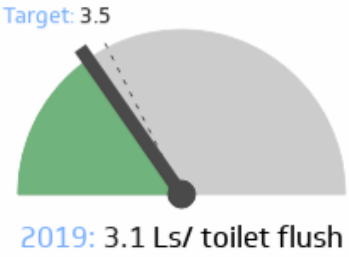
Utilising the achievements and outcomes of the 2019 Water Objectives allows Fieldays to set future sustainability goals that will have maximum impact. Goals are set on a short (next event), medium (2 years) and long term (5 years) time-scale with the aim to challenge the status quo with an ambitious long term goal, yet scale this achievably using shorter term objectives.

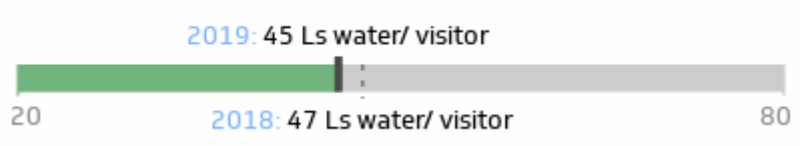
Water Benchmarking						
	Fieldays 2019	**Fieldays 2018**	**Fieldays 2017**	**Fieldays 2016**	**T.H.E. Expo 2017**	**Equidays 2018**
	4 days, 128,747 visitors, 1067 exhibitors	**4 days 131,868 visitors 1,059 exhibitors**	**133,588 visitors 998 exhibitors**	**130,684 visitors 1,010 exhibitors**	**13,507 visitors 182 exhibitors**	**3 days, 22,209 visitors, 198 exhibitors**
Total Water m3	5,807	6,252	13,495	11,838	122	247
Water (Ls)/ Visitor	45	47	101	91	9	11

Short Term - 2019
Determine exact water usage per flushed toilet.

Mid Term - 2020
Trial half flush toilet.

Long Term - 2023
Set all toilets onsite to half flush only.





2020 WATER GOALS:

- Work with grounds staff to identify which metres service which areas and pinpoint possible water saving measures to be taken in each.
- Get detailed information on toilets in order to lay groundwork for reducing flush volumes.
- Promote half flush within restrooms.
- Communicate water savings successes.

Highly accurate water data in 2019 has given new insights into water use.

WATER FAST FACTS

Fieldays 2019

445,000 litres of water was saved

Goes through
45 litres

For every visitor

ENVIRONMENTAL ATTITUDES

One of the indirect positive benefits from undertaking a Sustainable Event Programme is the wider impact the event can have on the education and awareness of participants and stakeholders on sustainability issues.

Strategies and ideas around the environment and sustainability can be shared through communication with stakeholders e.g. pre-event newsletters, on-site signage and through engagement in the sustainable event process such as active encouragement to recycle and feedback in surveying.

Fieldays' organisers and management have strong relationships with their suppliers, exhibitors, visitors and stakeholders in general, and continue to look to increasingly create more awareness around environmental sustainability and lasting positive action.

Evidence of improving attitudes towards environmental issues was seen in many areas:

- The enthusiastic response to the Waste Exhibitors Partner initiative.
- Exhibitors using sustainability in their own stands and advertising.
- Response to requests around waste disposal adhered to, with little resistance.
- The use of compostable materials around the site.
- A close finish between two fantastic exhibitor sites to win the inaugural Sustainability Exhibitor Award.
- A cementing of sustainability as central to Fieldays firstly and the farming sector as whole.

2020

LOOKING AHEAD

"A reduction goal for the future is an essential component to reducing your emissions. It allows progress to be tracked over time."

REDUCTION GOALS

FUTURE GOALS

Mystery Creek Events Centre Management is committed to aligning sustainability practices with the environmental concerns of the New Zealand agricultural community and leading by example when it comes to showcasing sustainable management.

This year three-step plans have been put in place for each Environmental Impact Area; some very ambitious and signaling a real commitment from organisers to sustainability.

The 2020 actions as detailed in each section of this report will help to form the Objectives for the coming year and steer Fieldays towards its ultimate 2023 goal. Working towards a short, mid and long term goal allows the event management team to continually improve upon their stewardship of this sustainable event and ensures Fieldays 2020 complies with ISO 20121 Sustainable Event certification.

FIELDAYS 2019 IS A
ISO 20121 COMPLIANT
SUSTAINABLE EVENT

A LITTLE BIT ABOUT US

By Joining the Instep Programme you are making a conscious decision to do something positive about a global problem.

At Instep, we believe that without first understanding your own impacts, one cannot take the right action. We strongly believe that your individual awareness and action has a more positive impact on our environment than the purchasing of carbon 'offsets'.

Any effects of climate change cannot be reversed overnight, however, you may be surprised how small changes through the Instep programme can make a big difference to your own situation.

At Instep we like to look at the positive things you can do, and they might be easier than you think. Our experience has shown that if 'you measure it – you manage it'.

WHO ARE WE?

Peter Birkett, Director and Founder of Instep.

With over forty years' experience in the international specialist chemical industries, Director and Founder Peter Birkett knows that environmental monitoring and reporting must be carried out accurately, professionally and with little disturbance to business-as-usual. After viewing first-hand the environmental and sustainability issues industry and business face around the world Peter established Instep, aiming to assist with minimising the impact of these processes on the environment and assist businesses of all types to meet the environmental challenges in today's business world.

Alisha Black, Technical Director Instep

Scientific credibility and compliance with all International Standards are key to the success of the Instep programmes and consulting services. Under the control of Alisha Black and her scientific team we know that this requirement is achieved.

Alisha completed her MSc in Biology at the University of Auckland in 2003, studying molecular genetics and environmental science. Since then her working experience has involved roles both in the laboratory and the field undertaking air, water and odour testing. Over the last 12 years Alisha and her team have created and developed the very successful range of Instep Carbon and Sustainability Programmes.

Margaret Birkett, Director and Finance Manager

Margaret's background is in education with many years of teaching in the United Kingdom, Hong Kong and New Zealand.

She subsequently moved into educational administration with responsibility for budgets, payroll and enrolments. Most recently she has held the roles of Careers, Gateway and STAR administrator, and International Student Manager - all within the educational system.

AS THE PROVERB GOES "EVERY JOURNEY OF A THOUSAND MILES STARTS WITH A SINGLE STEP". THE INSTEP PROGRAMMES WILL ASSIST YOU IN YOUR OWN SUSTAINABILITY JOURNEY