

Cream Goes Green - How One of Canada's Top Production Companies Measures and Reduces Waste on Set

Case study categories: **Waste Reduction, Measuring Impact**

The Haunted Museum is an upcoming television horror anthology series set to air on the Travel Channel in the coming months. Hosted by *Ghost Adventures*' star Zak Bagans, each episode explores a fully dramatized fictional story surrounding a haunted artifact from Zak's world-famous Haunted Museum in Las Vegas. The series consists of eight full-hour episodes, plus an extended length ninth episode. Shooting took place over 53 days in March 2021, with a crew size of 40-60. Filming was primarily based in and around Hamilton, Ontario.

With a commitment to make 2021 its first-ever carbon-neutral year, Cream Productions has launched a series of green initiatives on set and in offices. Starting with its production of *Haunted Museum (ZHM)*, these initiatives included improving waste management on set and measuring/offsetting carbon emissions. To manage their initiatives, Cream has formed a Green Committee as well as hired a communications manager to lead external and internal reporting of its green efforts.

Improving Waste Management on Set

Recognizing that tracking and measuring is essential for waste reduction, Cream partnered with waste management company Rethink Resource to launch three-stream waste stations on all its productions, conduct waste audits, and provide detailed monthly reports to track waste generation and performance.

The audit consisted of hand sorting one week of waste – piece by piece – from the production. Rethink Resource sends a monthly diversion report and as requested and conducts waste audits of garbage. Each garbage bag is opened and hand sorted, with every piece of garbage counted and reviewed (5,716 pieces in total!).



Photo:1 Three stream waste stations provided by Rethink Resource.

What is a waste audit and why is it important? A waste audit is a study of waste generated through regular day-to-day operations. All waste is hand sorted, measured, and recorded. Waste audits give us an understanding of the materials in our waste, provide baseline data, and identify opportunities to improve diversion performance, which can lead to cost saving and revenue generating opportunities.

In the March waste audit, 70 bags (5,716 pieces, 339 lbs) were collected and only 58% was put in the correct bins:

- 1,697 pieces were put in compost.
- 2,023 pieces were put in recycle.
- 1,996 pieces were put in waste.

By separating recycling, compost, and garbage, Cream Productions was able to immediately divert almost half (45%) of waste to recycling and compost facilities instead of landfill. The organic waste collected was composted and sent to local farms across the Greater Toronto Area. Organic material wasted in a landfill produces methane gas, which is 25 times more damaging to the environment than carbon dioxide. Not only does composting divert organic waste from landfill, it offers significant waste to resource potential, turning organic waste into a nutrient rich resource.

For the remaining 55%, the waste audits showed:

- **Packaging with food (which can't be recycled):** Cream has now piloted a compostable food packaging program, testing for food quality and container durability, so that more food packaging can go into green bin.
- **Plastic water bottles and non-recyclable coffee cups:** Cream has now issued everyone on staff and crew a reusable water bottle and travel coffee mug.
- **Brown paper towel (compostable) in the waste stream:** Cream has now provided a separate bin in the washrooms for paper towels, which is then emptied in the green bin.

These efforts helped Cream increase diversion from 45% in March to 82% by August.

However, during this reporting period, Covid-19 regulations impacted some of Cream's efforts, such as preventing the use of reusable bottles and mugs. Similarly, what would normally be buffet-style food service become pre-packaged, also creating challenges for using compostable containers (which start to get soggy over time). When Covid-19 restrictions are lifted, Cream expects to see a significant decrease in waste generation.



Photo 2: Waste being sorted during the audit.



Photo 3: Reusable coffee mug and water bottles provided to 44 staff and crew members.

Measuring Carbon Emissions

Using the [albert carbon calculator](#), Cream is now measuring carbon emissions for as many production activities as possible. All data is collected by the Production Co-ordinator and entered into albert's online tool for a total emissions number.

The below table provides a snapshot of all carbon emissions tracked and reported for *Haunted Museum*.

EMISSIONS FOR:	EMISSIONS GENERATED:
Vehicles (by model) driven to set The first 3-5 days on set are tallied by the Production Coordinator, then used to multiplied to calculate full run-of-show.	Daily avg: 39 vehicles driven to set, 6,620 kms; 50-day run of show: = 105.4 tonnes CO2
Generator fuel (by model) The first 3-5 days on set are tallied by the Production Coordinator, then used to multiplied to calculate full run-of-show.	50 days x 11 hours of: - 3 x 5K generators - 2 x 7K generators = 19 tonnes CO2
Flights & accommodations Information sourced from existing daily production reports	3 x out-of-province directors staying a combined total 91 nights. = 0.08 tonnes CO2
Home edit suites # of editors x # of days editing	8 editing suites, 10 hours per day for 10 weeks, total 4000 hours. = 0.36 tonnes CO2
Waste Information from Rethink Resource reports	= 0.078 tonnes CO2
Total carbon emissions generated and offset (see below section on offsetting carbon emissions)	= 125 tonnes CO2 \$3,125

The carbon calculator tool is available free for all productions to use. It helps streamline the process of inputting and collecting data needed to calculate carbon impact. Multiple productions can be tracked on this tool and having a single data hub helps to develop benchmarks for productions to work from and improve upon. Ontario Green Screen offers [free training](#) on how to use this tool for your next production.



Offsetting Carbon Emissions

To offset carbon emissions generated from *Haunted Museum*, a total carbon offset of **\$3,125 (for 125 metric tonnes)** was purchased at the Great Bear Forest Carbon Project in BC. The initiative is an Indigenous led carbon offset program that protects the Great Bear Rainforest as well as invests in the coastal First Nations communities who are world-leading stewards of ecosystem management.



Photo 4: Great Bear Forest, British Columbia

Cream intends to continue working carbon offsets costs into future production budgets based on estimates (using similarly sized productions).

What are carbon offsets? Carbon offsets are credits to fund environmental initiatives that avoids, reduces, or removes greenhouse gases from the atmosphere, such as renewable energy and forest protection. Offset credits may be purchased by any individual, company, or organization to compensate and balance the greenhouse gas emissions they produce.

[Learn more about carbon offsets from the David Suzuki Foundation.](#)

Investing in Sustainability

For Cream, the biggest takeaway is that making these changes didn't cost a lot of money or a lot of time. With a 3-4 person team over the course of several months, their first round of changes were manageable and impactful. The following table provides a cost breakdown of implementing sustainability initiatives for a 2-3 month period of production. All cost amounts are in Canadian dollars.

Carbon offset for ZHM production	\$3,125
Switch to Rethink Resource waste services	\$13,683 more than regular waste services. Includes 2 waste audits.
Switch to compostable food packaging (3 day pilot)	\$30/day more than regular packaging
Reusable bottles/mugs for crew and staff (44 people)	\$1,150
Communications manager	\$2,000
Hours spent planning & reporting	Exec - 24h, PA - 15h, Reporting/project management - 30h
TOTAL	\$20,048

Long-term, Cream Productions doesn't want to just offset its emissions, but reduce and eliminate them when possible. Cream is in the early stages of investigating long-term changes, including **battery-run generators, electric vehicles, further waste reduction, more sustainable food menus and redistributing leftover food, sustainable hair and makeup kits and modular/reusable set construction.**

"Tracking emissions is actually pretty easy to include in our daily efforts. We are always adapting during productions - this is just one new procedure to add, and it's widely supported by our staff and crew. It's also not hard to find the money to do this - with production budgets, this is a fraction of 1%. We feel good about supporting carbon-offsetting projects and are excited to build meaningful relationships with the organizations doing this important work."

- Patrick Cameron, SVP Operations, Cream Productions