earth angel · sustainable production services · e/a

CMPA
Canadian Media Producers Association

Sustainable Production Case Studies

Goal: *Better understand carbon-intensive business-as-usual practices relative to more sustainable production practices, illuminating opportunities and barriers in the process*

Methodology

- Earth Angel (EA), environmental consultancy firm specializing in media production, paired with two CMPA member company productions during prep stage and one for retroactive carbon assessment only.
- EA met with production teams to develop strategies.
- EA primarily responsible for qualitative/quantitative data capture.
- CMPA acted in supervisory role and assisted in establishing initial project outlines.
- EA completed two carbon assessments for each production - one using the Green Production Guide's Production environmental Accounting Report (PEAR), and the other using the albert calculator.

The Productions:

A

Production A - Vancouver

- MOW
- May – June 2022
- 15 Location Days

B

Production B - Toronto

- 16-Episode ½ Hour TV Series
- March – July 2022
- 61 Shoot Days: 17 Location, 44 Stage

C

Production C - Vancouver

- 6-Episode ½ Hour TV Series
- Jan – March 2022
- 34 Shoot Days: 26 Location, 8 Stage

earth angel · sustainable production services · e/a

Engagement & Guidance

- Production A created hybrid position for Health, Safety and Environmental Tech
- Green Memos and Department Eco Guides distributed
- Green Production Guide PEACH best practices encouraged
- EA provided oversight and was a resource for sustainable best practices

Impacts at a Glance

	Production A - Vancouver	Production B - Toronto
Overall Diversion Rate	42%	85%
Single-Use Plastic Water Bottles Avoided	~13,200	~8,240
Estimation of Avoided Emissions	7.34 MTCO2e	14.66 MTCO2e
Fossil Fuel Consumption	5,511 liters, increasing overall footprint by + 54 MTCO2e to (PEAR) + 63 MTCO2e (albert)	14,414 liters, increasing overall footprint by + 129 MTCO2e to (PEAR) + 153 MTCO2e (albert)

Production A's actual diversion rate is likely higher, as we were unable to collect diversion reports from locations compost vendor.

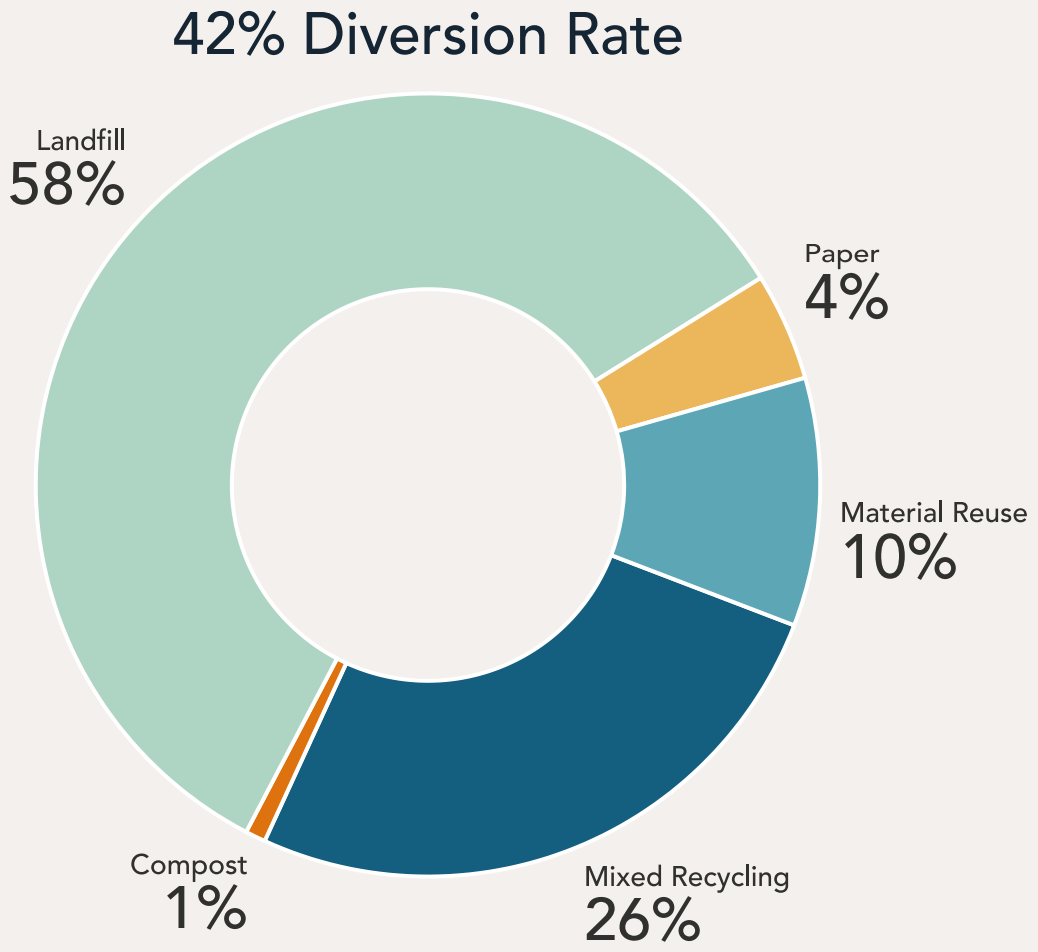
Production B's high diversion rate is due mainly to the efficient sorting process by waste hauler.

Production Waste Breakdown: Production A - Vancouver

This page represents how much waste the production generated and diverted over the course of filming.

Mixed Recycling	2,334 lbs
Compost	75 lbs
Landfill	5,247 lbs
Paper	400 lbs
Material Reuse	920 lbs

Total: 8,976 lbs



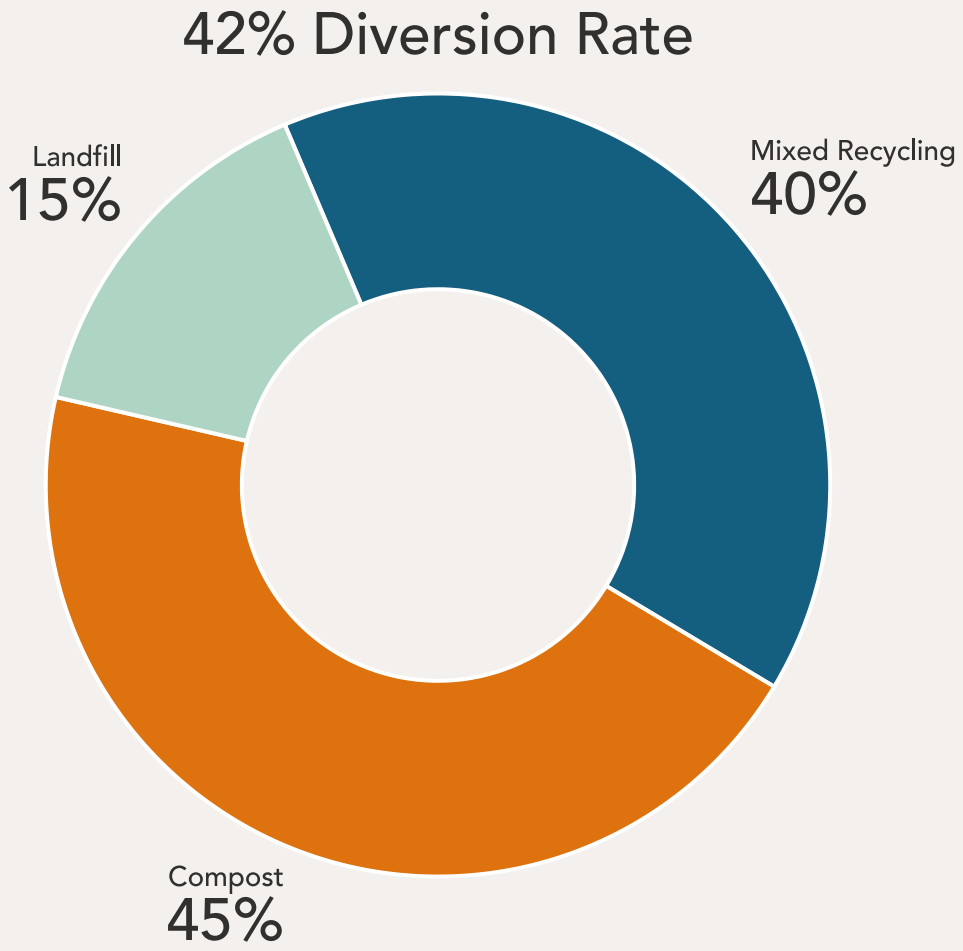
earth angel · sustainable production services · e/a

Production Waste Breakdown: Production B - Toronto

This page represents how much waste the production generated and diverted over the course of filming.

Mixed Recycling	7,608 lbs
Compost	8,559 lbs
Landfill	2,853 lbs

Total: 19,020 lbs



Sustainability Highlights: Energy/Fuel

Both Productions

- Tied into local power sources
- Hired local crew and cast

Production A - Vancouver

- Small appliances plugged into power grid
- Lighting package included over 30% LEDs
- Printers/copiers were Green Star Certified
- Selected filming location that accommodated multiple sets and minimized travel

Production B - Toronto

- Used three room trailers instead of two rooms to reduce fleet size

earth angel

Sustainability Highlights: Sourcing

Both Productions

- Used biodegradable or compostable dishware and cutlery
- Sourced local and sustainable food ingredients
- Purchased 5gal jug water and provided water refill stations
- Reused sets/equipment/materials from previous seasons and stored for future use

Production A - Vancouver

- Decreased paper use by digitizing workflow

Production B - Toronto

- Provided vegetarian and vegan options
- Used daily crew numbers to estimate accurate meal quantities
- Used office supplies from previous season

Sustainability Highlights: Waste

Both Productions

- Worked with green waste haulers to sort and collect recycling, organics, and PPE from studio

A

Production A - Vancouver

- Coordinated compost pickup from location

B

Production B - Toronto

- Donated a large volume of lumber
- Donated excess food

Cost Savings

Aside from reductions in carbon impact, sustainable initiatives achieved cost savings.

Water

Purchasing water in bulk (5 gallon jugs):

Production A saved $7,560

Production B saved $8,948

Materials

Production A saved $8,400 by storing set materials for future reuse

Production B saved $75,000 by reusing sets for next season

earth angel · sustainable production services · e/a

Barriers: Lack of Prep Time

Both productions (A & B) were impacted by a lack of advanced planning and prep time.

Their budgets often prevented hiring of green vendors, products, services, and on-set sustainability consultants.

With more time to strategize and prioritize sustainability, outcomes would have improved.

earth angel · sustainable production services · e/a

Barriers: Energy/Fuel

Both Productions

- Experienced limited product availability and prohibitive rental costs for hybrid and/or electric vehicles.

B

Production B - Toronto

- Experienced a lack of charging stations at studios/locations
- Experienced a lack of availability of solar powered trailers
- Office and studio facilities did not include LED lighting
- Transformers were added to studio but, due to insufficient power, diesel generators were still used

earth angel · sustainable production services · e/a

Barriers: Sourcing

Both Productions

- Experienced a higher cost for aluminum/boxed water options and a shortage of labour for water refill stations

Production B - Toronto

- Prohibitive cost of compostable dishware/cutlery and extra labour for hydration stations required

Barriers: Waste

Both Productions

- Compost data was incomplete

A

Production A - Vancouver

- Compost vendor did not provide diversion rate

B

Production B - Toronto

- Compost pickup from location not possible due to budget constraints
- Only masks collected for PPE recycling due to budget constraints

earth angel · sustainable production services · e/a

Carbon Assessments

Differences in emissions between calculators may be attributed to variances in embedded emissions factors and input categories.

EA was asked to complete both a GPG PEAR and albert carbon assessment for Productions A, B and C.

A

Production A - MOW

PEAR: 54 MTCO2e

albert: 64 MTCO2e

B

Production B - 16 x 30 min series

PEAR: 187 MTCO2e

albert: 202 MTCO2e

C

Production C - 6 x 30 min series (retroactive assessment only)

PEAR: 29 MTCO2

albert: 37 MTCO2e*

*includes ferry trips from Vancouver to Victoria, which is not possible to include in PEAR

earth angel · e/a · sustainable production services

Looking Ahead

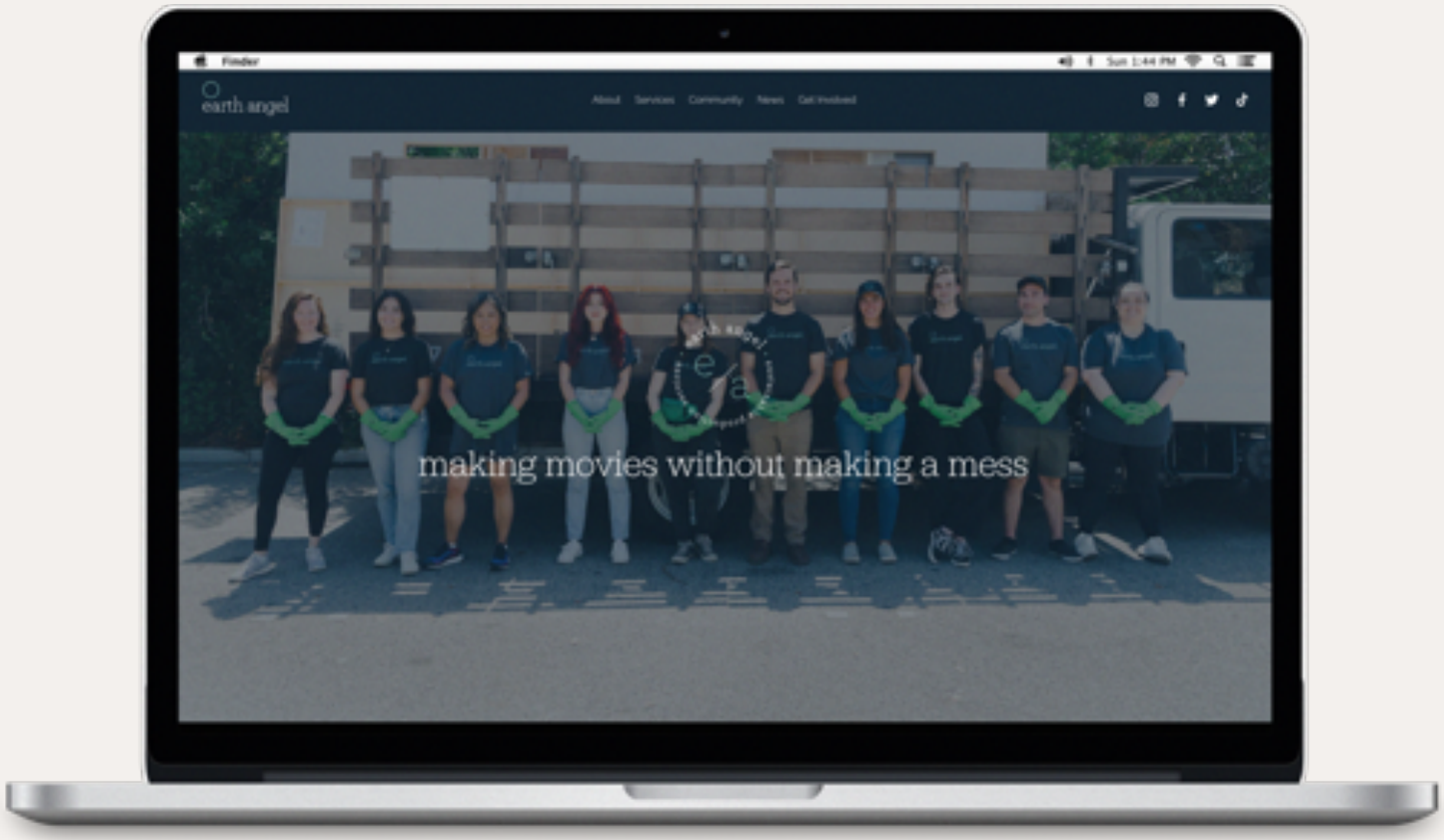
Producers, start early!

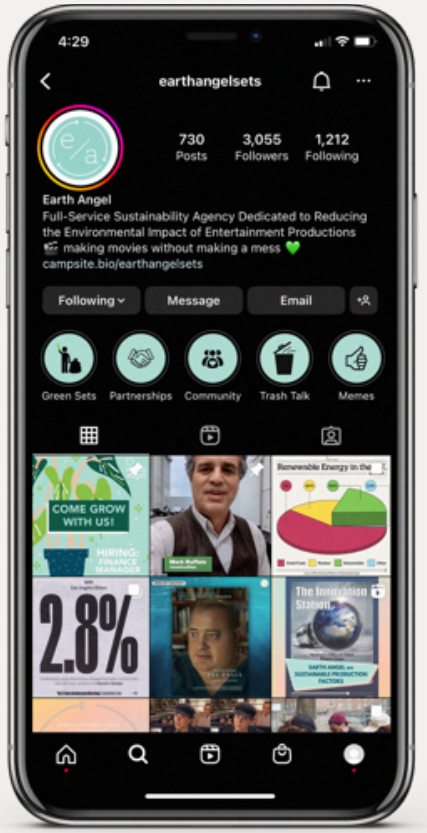
- Include sustainability costs into production budgets
- Enforce basic sustainability checklists
- Communicate early with production team and crew members to integrate initiatives

Areas for improvement:

- Hire waste vendors that can dispose of and provide diversion reports for landfill, recycling, compost and PPE.
- Prioritize fuel reduction strategies such as more tie-ins, electric generators and EV/hybrid rentals
- Eliminate single use plastics and purchase 100% compostable food service items.

That's a Wrap!





www.earthangelsets.com

@earthangelsets