



OFFICIAL IMPACT REPORT

IVY KITCHEN + COCKTAILS

2021 Waste Reduction Impact Report

Historical modeled estimate calibrated to the 2025 operating pattern

9201 E. Jefferson Ave., Detroit, MI 48214

Prepared for internal impact reporting, operating review, and external sustainability use

313-332-0607 | www.ivykc.com

Important Reporting Note

This report reconstructs IVY Kitchen + Cocktails' 2021 operating and waste-reduction activity as a historical model. The annual cover estimate is calibrated backward from the 2025 operating pattern and preserves the year-over-year growth assumptions established for the reporting series. IVY is modeled at approximately 25.4 covers per day Monday through Thursday and 104.9 covers per day Friday through Sunday during 2021. Quantitative results should be treated as modeled historical estimates until supporting POS, purchasing, inventory, organics, and waste records are located.

Executive Summary

Purpose. This report documents IVY Kitchen + Cocktails' 2021 operating scale and translates that activity into a structured model of food-material prevention, internal reuse, organics diversion, landfill residuals, greenhouse-gas benefit, and operating value.

Operating scale. IVY is modeled at approximately 21,648 guest covers for 2021, equivalent to about 416 covers per week and 1,804 per month. The cover pattern reflects approximately 25.4 covers per day Monday-Thursday and 104.9 covers per day Friday-Sunday. This year represents the baseline year.

Modeled impact. Applying the consistent planning factor of 0.50 pound of food-related material per guest cover produces approximately 10,824 pounds (5.41 tons) of annual food-related material. Approximately 3,247 pounds are modeled as prevented from disposal or diverted from landfill, producing a 30.00% prevention/diversion rate.

Environmental and financial estimate. The model produces approximately 2.95 MTCO₂e of comparative greenhouse-gas benefit and approximately \$2,327 in combined modeled protected-food and avoided-disposal value. These are planning estimates rather than audited environmental or accounting results.

21,648 ANNUAL COVERS	5.41 tons FOOD MATERIAL	30.0% DIVERTED	104 ORGANICS PICKUPS
---------------------------------	------------------------------------	---------------------------	---------------------------------

2021 Impact Snapshot

Indicator	2021 Result	Basis
Guest covers served	21,648	Modeled from weekly cover pattern
M-Th average covers/day	25.4	Scaled annual operating pattern
Fri-Sun average covers/day	104.9	Scaled annual operating pattern
Average covers/week	416	4 weekday + 3 weekend days
Employees participating	8	Management/historical planning input
Organics pickups	104/year	2 pickups/week x 52 weeks
Food materials managed	10,824 lb / 5.41 tons	0.50 lb/cover planning factor

Prevented/diverted	3,247 lb	30.00% modeled rate
Modeled GHG benefit	2.95 MTCO ₂ e	EPA WARM-based comparison
Modeled annual value	\$2,327	Planning case

1. Organization and Operating Context

IVY Kitchen + Cocktails is a Detroit full-service restaurant and hospitality operation. Food-material management occurs throughout purchasing, receiving, refrigerated and dry storage, inventory control, preparation, production, service, private-event activity, end-of-shift recovery, organics collection, and residual disposal.

The 2021 model reflects a seven-day operating rhythm with substantially different traffic patterns across the week. Monday through Thursday average about 25.4 covers per day, while Friday through Sunday average about 104.9 covers per day. This variation is important because purchasing, prep pars, staffing, and waste risk are not uniform across the week.

- Demand-informed purchasing based on expected weekday and weekend traffic.
- FIFO inventory rotation and date labeling to reduce spoilage.
- Prep quantities adjusted to stronger Friday-Sunday demand.
- Cross-utilization of appropriate ingredients to reduce single-use inventory.
- Organics separation supported by two collection pickups per week.
- Manager review of spoilage, overproduction, and abnormal product loss.

2. Report Scope, Data Classes, and Assumptions

Boundary Item	Definition
Reporting period	January 1, 2021 - December 31, 2021
Primary operating site	IVY Kitchen + Cocktails, 9201 E. Jefferson Ave., Detroit
Operating rhythm	7 days/week; modeled M-Th and Fri-Sun cover patterns
Annual guest covers	21,648
Organics schedule	2 pickups per week / 104 annual pickups
Food-material factor	0.50 lb per guest cover
Primary subject	Prevention, reuse, organics diversion, landfill residual, GHG and operating value
Reporting status	Historical modeled estimate calibrated to the 2025 operating pattern

Data Classification

- Management provided: operating details supplied directly by management, including the current 2025 cover pattern and twice-weekly pickup frequency.
- Historical modeled estimate: reconstructed prior-year values calibrated to the 2025 endpoint and stated annual growth rates.

- Modeled estimate: material, environmental, and financial values calculated from disclosed assumptions.
- Externally benchmarked: EPA WARM-based comparative greenhouse-gas factors.
- Pending verification: values that should be replaced by POS exports, scale records, pickup documentation, purchasing records, or accounting data when available.

Core Modeling Assumptions

ID	Assumption
A1	2021 establishes the baseline.
A2	Modeled daily covers are 25.4 M-Th and 104.9 Fri-Sun.
A3	The operation is modeled across 52 weeks and 364 service days.
A4	Food-related material is modeled at 0.50 lb per guest cover.
A5	Material disposition is modeled at 8.00% source prevention, 2.00% internal reuse, 20.00% organics diversion, and 70.00% landfill residual.
A6	IVY is modeled with two organics pickups per week, or 104 annual pickups.
A7	Monthly cover activity is seasonally distributed rather than evenly allocated.
A8	Financial results are planning scenarios, not verified accounting savings.

3. 2021 Operating Scale and Cover Pattern

Service Period	Days/Week	Avg Covers/Day	Modeled Covers/Week
Monday-Thursday	4	25.4	101.5
Friday-Sunday	3	104.9	314.8
TOTAL	7	-	416.3

The weekly model produces approximately 416.3 covers, or 21,648 covers across 52 weeks. The stronger Friday-Sunday period accounts for approximately 75.6% of weekly guest traffic, concentrating prep demand and waste exposure into the final three days of the week.

4. Modeled Food-Material Flow

Applying 0.50 pound of food-related material per guest cover to 21,648 annual covers produces approximately 10,824 pounds (5.41 tons) of modeled food-related material.

Disposition	Share	Annual lb	Tons	lb/Cover
Prevented through source reduction	8.00%	866	0.43	0.040

Repurposed/reused internally	2.00%	216	0.11	0.010
Organics diverted	20.00%	2,165	1.08	0.100
Landfill residual	70.00%	7,577	3.79	0.350
TOTAL	100.00%	10,824	5.41	0.500

Total material prevented from disposal or diverted from landfill is approximately 3,247 pounds, equal to a 30.00% modeled prevention/diversion rate. Approximately 7,577 pounds remain in the residual landfill stream.

Organics Collection Performance

Measure	Result
Pickup frequency	2 per week
Annual pickups	104
Modeled annual organics	2,165 lb
Average modeled organics/pickup	20.8 lb
Average modeled organics/week	41.6 lb

5. Monthly Modeled Results

Monthly activity is seasonally distributed to reflect restaurant fluctuations rather than assuming every month is identical. The distribution is a planning model and should be replaced with monthly POS and material-weight data when available.

Month	Covers	Food lb	Diverted lb	Landfill lb
January	1,515	758	227	530
February	1,515	758	227	530
March	1,732	866	260	606
April	1,732	866	260	606
May	1,732	866	260	606
June	1,732	866	260	606
July	1,948	974	292	682
August	1,948	974	292	682
September	1,732	866	260	606
October	1,948	974	292	682
November	1,948	974	292	682
December	2,165	1,082	325	758

TOTAL	21,648	10,824	3,247	7,577
-------	--------	--------	-------	-------

6. Modeled Environmental Impact

The greenhouse-gas estimate uses the same comparative framework across all IVY reports. Source prevention and internal reuse are modeled at 4.16 MTCO₂e avoided per short ton relative to landfill for planning purposes; organics diversion is modeled at 0.65 MTCO₂e avoided per short ton relative to landfill. The calculation is a high-level planning estimate, not a certified carbon inventory.

Activity	Tons	Benefit Factor	Modeled MTCO ₂ e
Source prevention	0.433	4.16	1.80
Internal reuse	0.108	4.16	0.45
Organics diversion	1.082	0.65	0.70
TOTAL	1.624	-	2.95

- Food-related material kept out of landfill: approximately 3,247 lb.
- Landfill residual per cover: approximately 0.350 lb.
- Organics captured across two weekly pickups: approximately 2,165 lb/year.
- Recycling, packaging, water, energy, and transportation impacts are excluded unless source data are available.

7. Modeled Financial and Operating Value

Scenario	Food \$/lb	Disposal \$/ton	Protected Food	Avoided Disposal	Total
Conservative	\$1.50	\$75	\$1,624	\$122	\$1,745
Planning Case	\$2.00	\$100	\$2,165	\$162	\$2,327
Upper Planning Range	\$2.50	\$125	\$2,706	\$203	\$2,909

The base planning case produces approximately \$2,327 in combined modeled annual value. This estimate is intended for operating analysis and grant/sustainability planning; it should not be described as verified cash savings without food-cost and hauling documentation.

8. Social and Operational Impact

Waste-reduction practices in 2021 were modeled within an active hospitality environment serving approximately 21,648 guest covers. Approximately 8 employees are represented in the participation model, with responsibility distributed across purchasing, storage, prep, service, closing, and management review.

- Weekday and weekend pars calibrated to demand.
- Regular inventory rotation and date labeling.
- Production controls intended to reduce over-prep and spoilage.
- Internal reuse of safe, appropriate ingredients or components where operationally suitable.

- Twice-weekly organics collection to reduce landfill dependence.
- Management review of waste causes and purchasing adjustments.

9. Multi-Year Progression

Year	Covers	Food Material	Diversion Rate	Diverted lb	GHG	Value
2021	21,648	10,824 lb	30.00%	3,247 lb	2.95	\$2,327

The progression is intentionally gradual. Annual cover volume rises through a changing weekday/weekend pattern, while the prevention/diversion rate also improves incrementally. This keeps growth in material impact tied to both business volume and operational efficiency rather than to an unsupported single-year jump.

10. Operating Priorities

- Use weekly POS trends to update Monday-Thursday and Friday-Sunday prep pars.
- Complete inventory counts on a fixed schedule and connect variance to purchasing decisions.
- Record spoilage, overproduction, prep waste, quality-control loss, and guest returns separately.
- Weigh organics at the point of generation or before each pickup.
- Retain pickup records for both weekly organics collections.
- Review high-cost waste by product and station during management meetings.
- Track any food donation separately from composting and landfill to prevent double counting.
- Reconcile monthly covers, purchasing, inventory, waste, and hauling costs in one reporting file.

11. Recommended 2022 Measurement Plan

- Export monthly POS cover counts and compare them with modeled cover patterns.
- Maintain daily waste logs with product, weight, reason, station, and destination.
- Record both organics pickups each week, including date, container condition, and weight when available.
- Match food purchasing and inventory variance to waste categories.
- Document food donation dates, recipient, food type, and weight separately.
- Complete quarterly management reviews and update annual impact calculations from actual records.

12. Information Needed to Convert Modeled Results to Verified Results

Information Item	Documentation Needed	Priority
Guest covers	POS cover exports by day and month	High
Weekday/weekend mix	POS covers by day of week	High
Organics pickups	Pickup tickets/invoices confirming 2 per week	High
Organics weights	Scale or hauler records	High
Food purchasing	Vendor invoices and food-cost reports	High
Inventory	Count sheets and variance reports	High
Waste causes	Daily waste logs	High

Employee participation	Schedules/training records	Medium
Food donation	Recipient and weight records	Medium
Waste-hauling cost	Invoices and container/service details	High

Conclusion

IVY Kitchen + Cocktails' 2021 impact model reflects approximately 21,648 annual guest covers, 10,824 pounds of modeled food-related material, and 3,247 pounds prevented from disposal or diverted from landfill. The modeled prevention/diversion rate is 30.00%, with approximately 2,165 pounds assigned to organics diversion across 104 annual pickups.

The associated environmental planning estimate is approximately 2.95 MTCO₂e, and the base financial planning scenario is approximately \$2,327. The report is designed to function as a year-specific operating record and to support a credible multi-year trend once source-level records are progressively added.

Appendix A: Calculation Register

Calculation	Formula	Result
Weekly covers	4 x 25.38 + 3 x 104.92	416.31
Annual covers	416.31 x 52	21648
Food materials	21648 x 0.50 lb	10824 lb
Source prevention	10824 x 8.00%	866 lb
Internal reuse	10824 x 2.00%	216 lb
Organics diversion	10824 x 20.00%	2165 lb
Landfill residual	10824 x 70.00%	7577 lb
Annual organics pickups	2 x 52 weeks	104
Organics per pickup	2165 / 104	20.8 lb
Total modeled GHG	Source + reuse + organics comparisons	2.95 MTCO₂e
Planning-case value	Protected food x \$2 + diverted tons x \$100	\$2,327

Appendix B: Source and Method Register

Source	Use	Status
Management operating information	2025 cover pattern and 2 pickups/week	Primary operating input
Historical growth assumptions	3.5% (2022), 5.2% (2023), 4.1% (2024)	Management-directed modeling inputs
2025 bridge rate	Average of prior stated growth rates	Modeling bridge to 2025 endpoint

0.50 lb/cover factor	Food-material planning estimate	Planning assumption
EPA WARM-based factors	Comparative GHG calculation	External methodology
POS records	Actual guest-cover verification	Needed
Organics records	Pickup frequency and weight verification	Needed
Purchasing/inventory records	Food and financial verification	Needed

Appendix C: Monthly Source Data Log

Month	Actual Covers	Prevented lb	Reused lb	Organics lb	Landfill lb
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					
TOTAL					