

THRIVE INDIANAPOLIS



Annual Report 2021





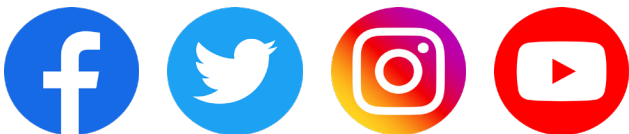
CONTENTS

Letter from the Director	1
--------------------------	---

Tracking Our Progress	
-----------------------	--

Accomplishments	2
Built Environment	3
Economy	5
Energy	7
Food and Urban Agriculture	9
Natural Resources	11
Public Health & Safety	13
Transportation & Land Use	15
Waste & Recycling	17

References	19
------------	----



@SustainIndy

LETTER FROM THE DIRECTOR

1

Under Mayor Joe Hogsett, the City of Indianapolis developed and adopted Thrive Indianapolis, the City's first sustainability and resilience action plan. Since the adoption of Thrive in 2019, Indy's Office of Sustainability has worked to implement these action items and to highlight the progress made by other organizations leading on these efforts. I'm excited to share that, to date, eight of the 59 action items have been accomplished. 2021 brought with it a number of new challenges as well as accomplishments; I remain incredibly encouraged by the local commitment to addressing climate change and equally as excited for our neighbors who will benefit from such action.

Last year, our first published report provided 2020 output metrics and an update on implementation progress. This year's report covers progress made in 2021, again updating the annually reported output metrics and – for the first time – includes current performance metrics. Performance metrics are updated every three years and, in combination with the annual output metrics, provide an overall indicator of resilience building in our communities.

With this report, we demonstrate our staff's strong commitment to evidence-based local climate action as well as civic transparency for our Marion County constituents. On a more personal note, it is my hope that these reports inspire additional community collaboration towards our shared goal of carbon neutrality by 2050 – and ultimately a cleaner, healthier city and planet for future generations to enjoy. Where meaningful progress has been made, let it be known. Where there is opportunity to improve, let it motivate you to adopt better habits and advocate for change within systems.

After all, Thrive is a community plan, and we know there are Hoosiers in every corner of the Circle City striving to be good stewards of our shared land in a multitude of ways. Wherever you are on your sustainability journey, we invite you to explore thriveindianapolis.com where you'll find progress updates throughout the year as well as opportunities for you or your organization to connect your work to Thrive goals.

Best Regards,



Morgan Mickelson
Director, Office of Sustainability
City of Indianapolis



Amber Rose Greaney



Mo McReynolds



Morgan Mickelson



Abbey Brands



Danielle Watkins



Sasha Heslin



Lindsay Trameri

TRACKING OUR PROGRESS

Based on the work of community stakeholders, city departments, and other partners, the below eight action items have been achieved as of 2021. As more are completed, they will be recorded at thriveindianapolis.com.



THRIVE ACCOMPLISHMENT



BUILT ENVIRONMENT
Energy Benchmarking and Transparency



THRIVE ACCOMPLISHMENT



BUILT ENVIRONMENT
Street Sweeping



THRIVE ACCOMPLISHMENT



ENERGY
Low/Moderate Income Solar Panel Pilot Project



THRIVE ACCOMPLISHMENT



FOOD & URBAN AGRICULTURE
Increase Access to SNAP Benefits



THRIVE ACCOMPLISHMENT



FOOD & URBAN AGRICULTURE
Remove Barriers for Grocers to Accept SNAP



THRIVE ACCOMPLISHMENT



TRANSPORTATION + LAND USE
Transit-Oriented Development



THRIVE ACCOMPLISHMENT



TRANSPORTATION + LAND USE
Pedestrian Corridors



THRIVE ACCOMPLISHMENT



WASTE + RECYCLING
Indianapolis Thriving Schools Challenge



BUILT ENVIRONMENT

3 Tracking Our Progress

	BASELINE DATA	BASELINE YEAR	2021 DATA	2025 TARGET
PERFORMANCE METRICS (reported every three years)				
GHG emissions from buildings ¹	9,638,165* MTCO ₂ e	2016	12,079,485 MTCO ₂ e	7,710,532 MTCO ₂ e
Total building energy use ²	88,509,707 MMBTU	2016	--	70,807,766 MMBTU
% Impervious Area ³	22.6%	2013	22%	20.3%

*Indianapolis was able to make a 17% reduction in its GHG emissions from buildings from 2010 to 2016, primarily due to the conversion of two coal plants and a coal-powered steam plant to natural gas and implementation of energy efficiency measures.

Benchmarking and Transparency Ordinance

In July of 2021, the Indianapolis City-County Council passed the Benchmarking & Transparency Ordinance, developed by the Office of Sustainability in collaboration with stakeholders from across the city.

Benchmarking refers to tracking a building's energy and water use, giving building owners the ability to become more energy-efficient, measure their progress over time, and cut costs. **Transparency** refers to the sharing of benchmarking

information, such as building scores and building characteristics, to the city and community. Program data will become public information in the future. 2022 will mark the first phase of the benchmarking program, referred to as **Thriving Buildings**, in which municipal properties greater than 50,000 square feet are required to comply and voluntary pledges are accepted for all other building types.



THRIVING BUILDINGS





AIC LEED Silver Celebration



Mayor Joe Hogsett and the City's Office of Sustainability announced in 2021 that the Assessment and Intervention Center (AIC) was designated LEED Silver, making it the **first city-owned certified green building in Indianapolis**. The LEED certification process took into account factors including light pollution reduction, water and energy efficiency, raw materials sourcing, indoor environmental quality, land protection, parking footprint, and access to transit.

Tracking Our Progress

	BASELINE DATA	BASELINE YEAR	2021 DATA	2025 TARGET
OUTPUT METRICS (reported annually)				
# of green buildings (i.e. LEED certified or Energy Star Rated)* ⁴	259*	2018	308	498
# of buildings disclosing energy use annually ⁵	--	--	--	1,000
# of publicly available EV charging stations ⁶	170	2018	190	300
Lane miles swept ⁷	19,399.71	2019	33,782.41	--
Tonnage removed from street sweeping ⁸	5,706.27	2019	8,921.72	--
Square feet of rain garden ⁹	83,975	2016	155,680	--

*Baseline increased by 10 buildings from the originally reported figure after optimizing the data collection process.

⁴data reported is cumulative since relaunch of city program



McKinney Climate Fellows Program

The McKinney Climate Fellows (MCF) is a workforce development program for undergraduate and graduate students focused on climate, sustainability, and community resilience and is an initiative of the Environmental Resilience Institute. The program partners with Indiana-based private, public, and nonprofit organizations to host **student fellows** and provide solutions-based sustainability expertise. Climate fellows gain valuable experience working full-time in a professional setting, partners receive assistance in sustainability and climate planning from talented students, and Indiana benefits from this critical sustainability work. In 2021, the Office of Sustainability participated in this program to host a fellow that assisted in accomplishing the 2019 carbon emissions inventory. More than 135 similar placements have been made since 2017 in 36 local government, 35 non-profits, and 21 corporate partners.

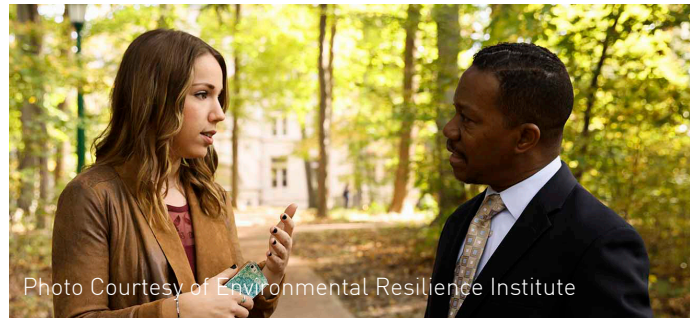


Photo Courtesy of Environmental Resilience Institute

Tracking Our Progress

	BASELINE DATA	BASELINE YEAR	2021 DATA	2025 TARGET
PERFORMANCE METRICS (reported every three years)				
% of population that is high school graduate or higher ¹⁰	85.7%	2016	86.1%	90%
Unemployment rate by ethnicity ¹¹	African Americans - 14.9% White/Caucasian - 7.9% Asian - 7.7% Hispanic/Latinx - 7.6%	2015	African Americans - 11% White/Caucasian - 4% Asian - 3% Hispanic/Latinx - 5%	Unemployment is equally distributed among ethnic groups
% population living at or below poverty line ¹²	20.5%	2016	18%	12.3%*

*US National Average in 2017



Tracking Our Progress

	BASELINE DATA	BASELINE YEAR	2021 DATA	2025 TARGET
OUTPUT METRICS (reported annually)				
# of companies receiving a tax abatement incentive committing to pay a living wage* ¹³	12	2018	17	--
# of green jobs listed with Project Indy ¹⁴	222	2019	508	--
# of Pathway to Employment participants who transitioned to a full time job ¹⁵	52	2019	32	N/A

*derived from Thrive Indianapolis metric “% of large corporations committing to paying a family sustaining wage to all employees”

Inclusive Incentives



The City of Indianapolis, in partnership with Develop Indy, has re-positioned existing economic development incentive programs to **enhance access to economic opportunity** for Indianapolis residents and **remove barriers to employment** – such as transit, training, and childcare – that prevent individuals from attaining and retaining good paying jobs.

This policy fine-tunes the evaluation of economic development projects, making it easier for small- and medium-sized businesses to access abatements and prioritizing Opportunity Industries, the number and growth of jobs paying \$18 or more an hour with healthcare benefits, the hiring of Marion County employees, and the development of minority- and women-owned businesses. For a company to receive an investment from the City, it is required to invest 5% of its estimated tax savings into workforce support programming to address primary barriers to employment.



ENERGY

7

Low- to Moderate-Income Solar Pilot Project

This first-of-its-kind solar pilot project worked to help low- and moderate-income households run on solar powered energy. **Installing solar panels** for a home can cost between \$5,000 and \$20,000, depending on the home — pushing it out of reach of most low- and moderate-income homeowners who already spend a higher proportion of their income on energy. Installing the renewable energy source can help these residents save a significant amount on energy bills. With help from **Solar United Neighbors** and other community partners, the first round of this project was able to provide solar energy to ten homes in the city.



Tracking Our Progress

	BASELINE DATA	BASELINE YEAR	2021 DATA	2025 TARGET
PERFORMANCE METRICS (reported every three years)				
% of municipal energy use from renewable energy sources ¹⁶	8%	2016	5.1%	75%
% renewable energy generation ¹⁷	7%	2017	5.1%	25%
GHG emissions from energy generation within Indianapolis ¹⁸	1,291,888 MTCO ₂ e	2016	1,003,747 MTCO ₂ e	955,997* MTCO ₂ e

*Listed as "26%" in Thrive Indianapolis



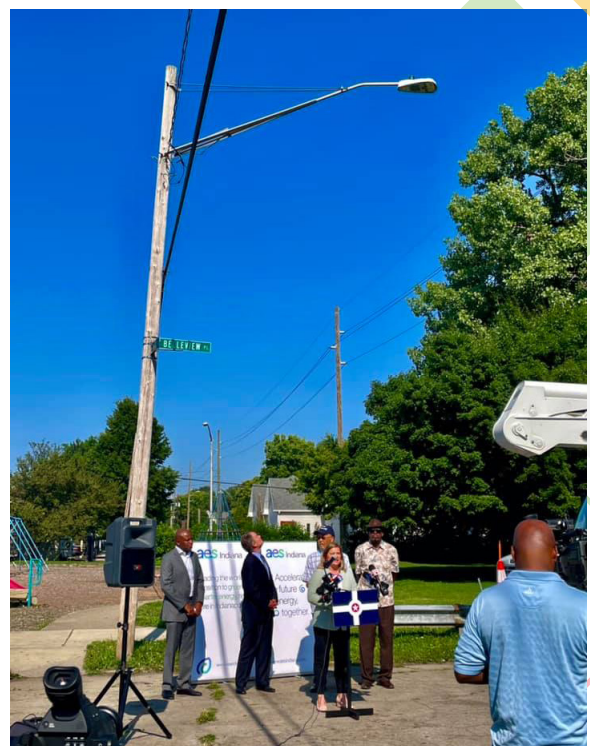
Tracking Our Progress

	BASELINE DATA	BASELINE YEAR	2021 DATA	2025 TARGET
OUTPUT METRICS (reported annually)				
Operation Night Light streetlight additions ¹⁹	175	2018	1,765*	--
Actual reductions in energy consumption due to conversions from Operation Night Light ²⁰	805,240 kWh	2018	32,276,260 kWh	--

*data reported in cumulative since launch of city program

Operation Night Light

The City of Indianapolis launched Operation Night Light with AES Indiana (formerly Indianapolis Power & Light) in 2016, delivering on a promise to lift the 35-year streetlight moratorium endured by its residents. Since then, **26,434 fixtures have been retrofitted** with high-efficiency LED lights in neighborhoods across Marion County. Alongside benefits of brighter city streets, the **new LED bulbs reduce energy consumption by 50%**, require far less maintenance than their predecessors, and decrease light pollution. 2021 marked the official end of the final phase of the project. However, as the city continues to benefit from the retrofits, savings will fund thousands of additional installations through 2025. This demonstrates what a public-private partnership can do for the community, **reducing greenhouse gas emissions and using resources more efficiently.**





9 Tracking Our Progress

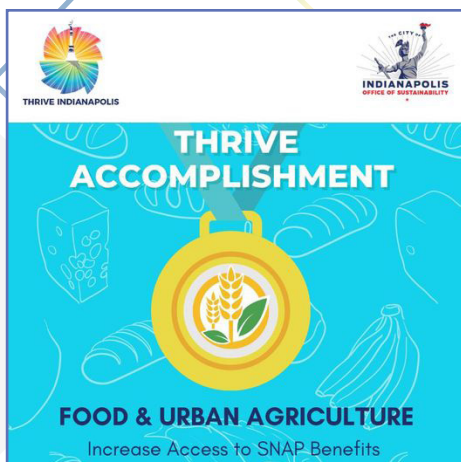
	BASELINE DATA	BASELINE YEAR	2021 DATA	2025 TARGET
PERFORMANCE METRICS (reported every three years)				
Community members who live beyond a half mile from a supermarket and identify as a person of color* ²¹	32%*	2015	34%	24%*
Total community members utilizing food assistance programs ²²	21%	2017	25%	15%

*derived from Thrive Indianapolis metric “Community members who are food insecure and identify as a person of color”

*the baseline and goal have been adjusted due to a discrepancy with the source material

^derived from Thrive Indianapolis metric “Total community members who are food insecure including those who are utilizing food assistance programs”

Increased Access to SNAP Benefits



The Supplemental Nutrition Assistance Program (SNAP) provides food assistance to low- and no-income people and families living in the United States. SNAP is a federal aid program administered by the U.S. Department of Agriculture, however, distribution of benefits occurs at the state level. In April of 2020, **USDA passed emergency allotments for the state of Indiana**, meaning all Indiana residents who apply for the Supplemental Nutrition Assistance Program (SNAP) will be approved. The previously required asset limit is no longer necessary. This emergency order was extended throughout 2021. The program in Indiana saw a 21.74% increase in 2021.



Remove Barriers to Accepting SNAP



In addition to lowering barriers to SNAP access, equipping local stores with the tools to accept SNAP benefits was imperative. In 2021, the City of Indianapolis partnered with Indy Local Grocers Coalition (ILGC) to invest \$290,000 at ILGC affiliates to accept SNAP benefits. ILGC stores are primarily in low food-access areas, making **ensured SNAP acceptance paramount to affordable access to healthy food**. SNAP certification requires stores to stock certain healthy foods. ILGC stores that accept SNAP provide a neighborhood outlet for families to redeem food benefit dollars, contributing to overcoming food insecurity in our city.

Tracking Our Progress

	BASELINE DATA	BASELINE YEAR	2021 DATA	2025 TARGET
OUTPUT METRICS (reported annually)				
Fresh Bucks used at local farmer's markets and grocers coalition stores ²³	\$6,180 at 7 locations	2020	\$34,050 at 10 locations	--
SNAP used at local farmers markets and grocers coalition stores ²⁴	\$55,645 at 7 locations	2020	\$8,925,537 at 5 locations	--
SNAP/WIC certified grocers coalition stores ²⁵	2 locations	2019	18 locations	--
# of active urban farms and community gardens ²⁶	103	2019	134	--



Tracking Our Progress

	BASELINE DATA	BASELINE YEAR	2021 DATA	2025 TARGET
PERFORMANCE METRICS (reported every three years)				
# of days not meeting National Air Quality Standards (exceedances) ²⁷	7	2017	6	5
% of samples that exceed Indiana Water Quality Standards of E.coli ²⁸	86%	2018	72.7%	40%
Per capita spending to maintain and operate parks ²⁹	\$26	2016	\$43.72	\$50

*derived from Thrive Indianapolis metric "Per capita spending to maintain parks"

Knozone

Knozone is an initiative to make Central Indiana one of the Midwest’s most sustainable, livable regions. Through education, resources and guidance for taking action, Knozone works with residents, schools, and businesses to **improve our region’s air quality**, making Central Indiana a great place to live, work and visit. Residents who have heard of Knozone Action Days, might not be familiar with what exactly ozone is or what action to take at peak ozone levels. A Knozone Action Day means the air quality may become unhealthy for everyone, but certain groups including children and the elderly should avoid spending a lot of time outside. The Office of Sustainability tracks daily local air quality with the help of Indiana Department of Environmental Management and monitors for National Air Quality Standards exceedences in order to determine the occurrence of Knozone Action Days. More information can be found at knozone.com.





Urban Tree Canopy Investment



Keep Indianapolis Beautiful (KIB) is a critical partner to the City of Indianapolis, helping to ensure we are on track to meet our goal of planting 30,000 trees by 2025 while also prioritizing neighborhoods with historical disinvestment. Through **data-driven analysis of our urban tree canopy**, we know that some neighborhoods in our city have access to fewer environmental benefits than others, such as trees, green space, and clean streets. KIB is now utilizing this new understanding to serve as their guiding principle to improve environmental equity in Indianapolis.

Tracking Our Progress

	BASELINE DATA	BASELINE YEAR	2021 DATA	2025 TARGET
OUTPUT METRICS (reported annually)				
# of youth participating in summer and after school recreational programs ³⁰	210,322	2018	271,092	213,932
Tree planted toward 30,000 goal by 2025 to increase canopy, reduce runoff and mitigate against the urban heat island, particularly in those neighborhoods in most need ³¹	0	2018	23,662	30,000
Total acreage in parks and along greenways managed ecologically ³²	1,591	2016	1,966	--



Expansion of Violence Prevention Grants

Since its inception in 2015, the Office of Public Health and Safety (OPHS) has prioritized investments in grassroots organizations implementing **evidence-based violence prevention and reduction strategies**. Mayor Joe Hogsett announced a comprehensive violence reduction plan in fall 2021, powered by \$150 million in American Rescue Plan funds unanimously approved by the City-County Council. The plan emphasizes law enforcement investments, including \$9 million in modern policing technology, 100 new IMPD officer positions, and up to 40 IMPD civilian positions to cover non-emergencies. It also addresses root causes of violence through **\$45 million for grassroots violence prevention** organization—five times that amount dedicated in previous years—**50 peacemakers** to engage with those at risk of becoming perpetrators or victims of gun violence, **\$30 million for mental health resources**, and more. These efforts take a holistic approach to violence reduction, focusing on the root causes of crime as well as data-based methods that target those most at-risk of becoming victims and perpetrators of violent crime.



Tracking Our Progress

	BASELINE DATA	BASELINE YEAR	2021 DATA	2025 TARGET
PERFORMANCE METRICS (reported every three years)				
# of annual days air quality impacts vulnerable populations ³³	12	2016	7	6
% of adults who are overweight or obese ³⁴	67%	2012	66%	62%
% of children who are active at least 60 minutes per day ³⁵	78.3%	2018	84%	86.1%



Tracking Our Progress

	BASELINE DATA	BASELINE YEAR	2021 DATA	2025 TARGET
OUTPUT METRICS (reported annually)				
% of residents with health insurance ³⁶	86.1%	2016	89.5%	100%

IndyRent

Launched in the summer of 2020 by the City of Indianapolis, IndyRent has been working to address the financial burden of the pandemic by **providing rental assistance to those impacted by COVID-19**. The program utilizes federal relief funds from the CARES Act and state funds allocated from the American Rescue Plan Act to provide temporary relief to renters who apply in Marion County. In 2021, the City’s partnership with the Indiana Housing and Community Development Authority brought an additional **\$91 million in federal funds** to the IndyRent program. In the same year, the city approved nearly **45,000 applications for assistance**. The initiative in 2021 allocated more than \$62.6 million in rental assistance to keep Indianapolis renters housed.

The City additionally continues to support supplemental resources for Indianapolis tenants. The Tenant Advocate Project was launched in 2021 with Indianapolis legal aid partners to provide **free, onsite legal assistance** in small claims courts for tenants facing eviction. TAP attorneys are currently available in eight of the nine townships on days that eviction hearings take place. The City has also partnered with small claims courts and the State of Indiana to give judges real-time data and information on tenants who have applied for assistance. More information at indyrent.org.

INDY RENT

Has your rent been impacted by COVID-19? You may qualify to get up to 12 months of rent covered by IndyRent. VISIT INDYRENT.ORG FOR MORE INFORMATION

THE CITY OF INDIANAPOLIS



TRANSPORTATION & LAND USE

Tracking Our Progress

	BASELINE DATA	BASELINE YEAR	2021 DATA	2025 TARGET
PERFORMANCE METRICS (reported every three years)				
% of commuters who drive alone ³⁷	85%	2013	83.2%	75%
Total GHG emissions from the transportation sector ³⁸	4,947,294 MTCO ₂ e	2016	5,494,651 MTCO ₂ e	3,957,835 MTCO ₂ e

Transit-Oriented Development



EASY ACCESS TO SHOPS AND JOBS



MODERATE TO HIGH DENSITY HOUSING NEAR TRANSIT



IMPROVED PUBLIC SPACES



SAFE STREETS TO WALK AND RIDE BIKES

In September 2021, the Metropolitan Development Commission adopted the Transit-Oriented Development Ordinance that amends Indy Rezone, the Indianapolis-Marion County Consolidated Zoning Ordinance, to support **housing diversity, enhanced walkability, and context-based design** that support greater connectivity along IndyGo’s Bus Rapid Transit lines. This shift to a people-focused philosophy in the way our city views transportation also prioritizes equitable and sustainable neighborhoods. The TOD Ordinance became official on November 1, 2021. The ordinance was developed as part of the Bloomberg Philanthropies **American Cities Climate Challenge**, a two-year process that also included the Benchmarking and Transparency Ordinance.



Highly EVolved

Don't be a fossil – drive electric. It's a new age for electric vehicles in Central Indiana. The mission of the Highly EVolved campaign is to **educate residents on the benefits and realities of electric vehicles.** The campaign is a collaborative partnership with various stakeholders operated by the Office of Sustainability to create a more resilient future for Indianapolis. Learn more about driving electric and find out what the dinosaurs do next at behighlyevolved.com.

"Who's the dinosaur now, Chad?"



Tracking Our Progress

	BASELINE DATA	BASELINE YEAR	2021 DATA	2025 TARGET
OUTPUT METRICS (reported annually)				
Miles of bikes lanes ³⁹	104	2017	115	200
# of EVs registered in Indianapolis ⁴⁰	760	2017	1,581	3,040
Miles of greenways and trails ⁴¹	99	2018	116	--
Cultural Trail miles, bikes and docking stations ⁴²	8 miles 29 stations 251 bikes	2018	8 miles 50 stations 500 bikes	--



WASTE & RECYCLING

17

Tracking Our Progress

	BASELINE DATA	BASELINE YEAR	2021 DATA	2025 TARGET
PERFORMANCE METRICS (reported every three years)				
Total GHG emissions from the waste sector (solid waste)* ⁴³	350,588 MTCO ₂ e*	2016	522,552.84 MTCO ₂ e	35,835 MTCO ₂ e
Total GHG emissions from waste water* ⁴⁴	19,194 MTCO ₂ e	2016	17,200.96 MTCO ₂ e	--

*derived from Thrive Indianapolis metric "Total GHG emissions from the waste sector"

*the baseline has been adjusted due to a discrepancy with the source material

A Little Love Stops Litter

How can we stop litter in Indianapolis? A little love.

The Indianapolis Office of Sustainability and Department of Public Works and Keep Indianapolis Beautiful (KIB) partnered on the A Little Love Stops Litter anti-litter campaign starting in summer 2021. The campaign goal is to motivate the Indianapolis community to make small efforts that have big impacts at reducing litter in our city. ALLSL focuses on little steps that can make big strides towards reducing litter in our community. From bagging loose trash to properly disposing of cigarette butts, each message offers a useful tip on ways to prevent litter and 'do your part'. More information can be found at kibi.org/aLittleLove.





Indianapolis Circular Economy Initiative

In 2021, the Indianapolis Office of Sustainability signed onto the charter of the Indianapolis Circular Economy Initiative. ICEI is a multi-year collaborative effort of Circular Indiana to address Indianapolis’ environmental needs and goals through education, collaboration, and advocacy. These goals include **addressing the numerous challenges with Indianapolis’ recycling infrastructure**; achieving Thrive Indianapolis waste and recycling goals; generating good and promising jobs; fostering innovation, ideas, and investments; and capturing the economic, social, and environmental benefits of a thriving circular economy in Indiana.




**INDIANAPOLIS
CIRCULAR ECONOMY INITIATIVE**

Tracking Our Progress

	BASELINE DATA	BASELINE YEAR	2021 DATA	2025 TARGET
OUTPUT METRICS (reported annually)				
Total tons of materials recycled ⁴⁵	16,336	2017	14,637.35	16,696
ITSC* projects completed ⁴⁶	0	2018	113	--
Students impacted by ITSC* ⁴⁷	0	2018	71,843	--

*Indiana Thriving Schools Challenge

REFERENCES

- ¹City of Indianapolis & Marion County (2021). Greenhouse Gas Emissions Inventory Report for 2010, 2013, 2016 & 2019
- ²City of Indianapolis & Marion County. (2021). Greenhouse Gas Emissions Inventory Report for 2010, 2013, 2016 & 2019
- ³City of Indianapolis Department of Public Works. (2021). Email Coorespondence with Jane Regensburg on Feb. 24, 2022
- ⁴U.S. EPA & U.S. DOE Energy Star Program. (2021). ENERGY STAR Certified Buildings and Plants (web database). Retrieved from https://www.energystar.gov/index.cfm?fuseaction=labeled_buildings.locator U.S. Green Buildings Council. (2018). LEED Project Search (web database). Retrieved from <https://www.usgbc.org/projects?keys=Indianapolis>
- ⁵City of Indianapolis Office of Sustainability. (2021). (part of Thriving Buildings implementation, will not be reported until 2026 according to Benchmarking and Transparency Ordinance)
- ⁶U.S. Department of Energy. (2021). Alternative Fuel Data Center Station Locator Tool. Retrieved from <https://afdc.energy.gov/stations/#/find/nearest>; Electrification Coalition (2021) Email Coorespondence with Matt Stephens-Rich on Feb. 16, 2022
- ⁷City of Indianapolis, Department of Public Works. (2021). Email Coorespondence with Jerry Scarbrough on April 13, 2022
- ⁸City of Indianapolis, Department of Public Works. (2021). Email Coorespondence with Jerry Scarbrough on April 13, 2022
- ⁹City of Indianapolis, Office of Land Stewardship. (2021); Indianapolis Cultural Trail, Inc. (2021).
- ¹⁰The Polis Center at IUPUI. (2021). SAVI database. Retrieved from <http://www.savi.org/savi>
- ¹¹The Polis Center at IUPUI. (2021). SAVI database. Retrieved from <http://www.savi.org/savi>
- ¹²The Polis Center at IUPUI. (2021). SAVI database. Retrieved from <http://www.savi.org/savi>
- ¹³City of Indianapolis Department of Metropolitan Development. (2021). Personal Communication with Ryan Hunt.
- ¹⁴EmployIndy, Project Indy. (2021). Email Coorespondence with Erika Cheney on April 13, 2022.
- ¹⁵City of Indianapolis, Department of Public Works. (2021); City of Indianapolis, Office of Public Health & Safety. (2021).
- ¹⁶AES Indiana (formerly Indianapolis Power & Light). (2021). Email Correspondence with Zac Elliot on Jan. 7, 2022
- ¹⁷AES Indiana (formerly Indianapolis Power & Light). (2021). Email Correspondence with Zac Elliot on Jan. 7, 2022
- ¹⁸City of Indianapolis & Marion County. (2021). Greenhouse Gas Emissions Inventory Report for 2010, 2013, 2016 & 2019.
- ¹⁹AES Indiana (formerly Indianapolis Power & Light). (2021). Email Correspondence with Theresa Mendoza (DPW) on April 11, 2022
- ²⁰AES Indiana (formerly Indianapolis Power & Light). (2021). Email Correspondence with Theresa Mendoza (DPW) on April 11, 2022
- ²¹USDA. (2019). Food Access Research Atlas Data Download. Retrieved from <https://www.ers.usda.gov/data-products/food-access-research-atlas/download-the-data/#Archived%20Versions>
- ²²Indy Food Council. Unmet Needs Study (2021) Retrieved from <https://www.indyhunger.org/studies-reports/>. Email Correspondence with Milele Kennedy and Sara Niccum, Office of Public Health and Safety, Community Nutrition and Food Policy Division on March 24, 2022.
- ²³City of Indianapolis, Office of Public Health and Safety, Community Nutrition and Food Policy Division (2021). Email Correspondence with Milele Kennedy and Sara Niccum in April 2022.
- ²⁴City of Indianapolis, Office of Public Health and Safety, Community Nutrition and Food Policy Division (2021). Email Correspondence with Milele Kennedy and Sara Niccum in April 2022.
- ²⁵City of Indianapolis, Office of Public Health and Safety, Community Nutrition and Food Policy Division (2021). Email Correspondence with Milele Kennedy and Sara Niccum on Feb 28, 2022.

- ²⁶City of Indianapolis, Office of Public Health and Safety, Community Nutrition and Food Policy Division (2021). Email Correspondence with Milele Kennedy and Sara Niccum on Feb 28, 2022.
- ²⁷Indiana Department of Environmental Management (2021). Email Correspondence with Matthew Hollinger on Feb. 18, 2022.
- ²⁸Marion County Public Health Department (MCPHD). (2021). Community Health Assessment 2020. Email Correspondence with Andrea Bochenek on Feb. 14, 2022.
- ²⁹Indy Parks. (2021) Email Correspondence with Angela Clark on April 14, 2022.
- ³⁰Indy Parks. (2021) Email Correspondence with Joenne Pope on Feb. 18, 2022.
- ³¹City of Indianapolis, Department of Public Works (2021). Tree City USA, 2021.
- ³²City of Indianapolis, Office of Land Stewardship (2021). Email Correspondence with Don Miller on Feb. 22, 2022.
- ³³Indiana Department of Environmental Management (2021). Email Correspondence with Matthew Hollinger on Feb. 18, 2022.
- ³⁴Marion County Public Health Department (MCPHD). (2021). Community Health Assessment 2020. Email Correspondence with Andrea Bochenek on Feb. 14, 2022.
- ³⁵Marion County Public Health Department (MCPHD). (2021). Community Health Assessment 2020. Email Correspondence with Andrea Bochenek on Feb. 14, 2022
- ³⁶Marion County Public Health Department (MCPHD). (2021). Community Health Assessment 2020. Email Correspondence with Andrea Bochenek on Feb. 14, 2022
- ³⁷U.S. Census Bureau. (2019). 2016-2020 American Community Survey 5-Year Estimates for Marion County. Retrieved from <https://data.census.gov/cedsci/table?tid=ACSDP5Y2019.DP03&g=310XX00US26900>
- ³⁸City of Indianapolis & Marion County (2021). Greenhouse Gas Emissions Inventory Report for 2010, 2013, 2016 & 2019
- ³⁹City of Indianapolis, Department of Public Works. (2021). Email Correspondence with Gretchen Zortman on Mar. 21, 2022
- ⁴⁰AES Indiana (formerly IPL). (2021). Email Correspondence with Zac Elliot on Jan. 7, 2022.
- ⁴¹City of Indianapolis, Department of Public Works. (2021). Email Correspondence with Gretchen Zortman on Mar. 21, 2022
- ⁴²Indianapolis Cultural Trail, Inc. (2021). Email Correspondence with Sarah Frey on. Feb. 22, 2022
- ⁴³City of Indianapolis & Marion County (2021). Greenhouse Gas Emissions Inventory Report for 2010, 2013, 2016 & 2019
- ⁴⁴City of Indianapolis & Marion County (2021). Greenhouse Gas Emissions Inventory Report for 2010, 2013, 2016 & 2019
- ⁴⁵City of Indianapolis, Department of Public Works. (2021). Email Correspondence with Shawn Brock on Feb. 7, 2022
- ⁴⁶Earth Charter Indiana. (2021). Email Correspondence with Tatjana Rebelle Feb. 4, 2022
- ⁴⁷Earth Charter Indiana. (2021). Email Correspondence with Tatjana Rebelle Feb. 4, 2022

