

## Thrive Indianapolis & Equitable Climate Action

Morgan Mickelson | Director, Office of Sustainability Department of Public Works



## **Overview of Discussion**

## **Introduction to Panelists**

## Presentation

- Background information on Office of Sustainability
- Introduction to Thrive Indianapolis
- Explore intersection of climate change and specific issue with panelists

## Discussion amongst audience at tables

Wrap up, share final thoughts, question and answer with panel

## Office of Sustainability | @SustainIndy

## **MISSION + VISION**

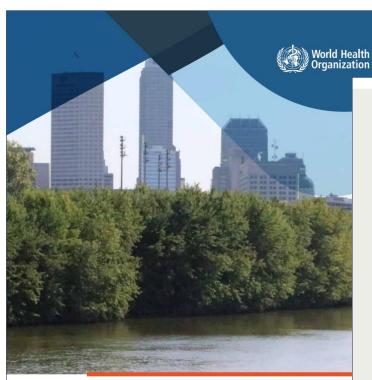
The Office of Sustainability leads by inspiring lasting environmental, economic, and neighborhood vitality through collaboration, education and community action. The Office of Sustainability envisions Indianapolis as a resilient community of inclusive, healthy and happy neighborhoods.

## **AREAS OF FOCUS**

Thrive Indianapolis implementation, Thriving Buildings – energy benchmarking ordinance implementation,

Greenhouse Gas Emissions inventory and compliance reporting, Knozone – air quality awareness campaign, Highly

EVolved – electric vehicle awareness campaign, It's My City Contract management (tree planting and litter pick-up)



Developed in collaboration with the City of Indianapolis Office of Sustaina

## 2022

#### **HEALTH AND CLIMATE CHANGE URBAN PROFILE Indianapolis**

This World Health Organization (WHO) health and climate change urban profile presents a snapshot of key climate has climate-sensitive health risks and the potential health benefits of climate change adaptation and mitigation. The profile does not provide comprehensive information on all climate hazards, vulnerability factors or health risks but rather proexamples of some immediate risks based on available evidence and reported priorities and initiatives. Outlined in this p are opportunities to promote policies and projects that protect the climate and environment while having large imme health benefits at the local level.

### Climate hazards and health risks (1-3)



### **Evidence to support**

#### Flooding / extreme precipitation

- · Indianapolis is expected to see significant precipitation increases during winter (up to 49%) and spring (up to 24%) by mid-century (3). This is likely to result in a greater flood risk that could overwhelm already aging stormwater infrastructure and lead to possible injuries. exposure to waterborne diseases, exposure to mold, and reduced air quality, causing respiratory issues (1, 2).
- · Close to 8 billion gallons per year of combined sewage and storm water are dumped into local rivers and streams, primarily after it rains (2). This has been linked to gastrointestinal diseases, including nausea, vomiting and acute diarrhea, as well as increases in pediatric hospital visits (8).
- In 2018, 81% of samples exceeded Indiana's Water Quality Standards for E.coli (9).

#### Heatwaves and/or increased temperatures

- · Mean annual temperatures in Indianapolis are projected to increase by 3.0 to 7.0 °F (1.7 to 3.9 °C) from historic values by mid-century (3).2
- Historically, Marion County had an average of four days of extreme heat (+95 °F / 35 °C). Extreme heat days are expected to increase to between eight and 11 days by 2050 (3).
- · Heat is a leading cause of weather-related mortality and will negatively impact individuals with asthma, respiratory illnesses and mental health issues (10). Noncommunicable diseases such as ischemic heart disease and stroke may also increase. Marion County is already facing higher numbers of these illnesses than state and national averages (11-13).
- A reduction in the number of extreme cold days and a lengthening of frost-free seasons are also expected which could reduce health risks associated with extreme cold (3).

#### Urban heat island effect

- · Parts of the city where there is limited tree coverage and large areas of paved or concrete surfaces are experiencing an urban heat island effect, with air temperatures that can be more than 15 °F (8.4 °C) higher than mean temperatures (2).
- Many heat island hot spots overlap with areas identified as highly socially vulnerable, where people are less able to absorb the increased energy costs for managing indoor air temperature (2, 10).
- · Only 36% of the population lives within a 10-minute walk of naturally cooling green spaces, compared with the national average of 55% (14).

#### Health and development indicators

#### 166 335 people

From 2012 to 2016, an estimated 166 335 people in Marion County were living below the federal poverty line and were located in a flood zone (4).

#### US\$ 53 per person

In 2019, Indiana ranked 41st in the country for public health funding with only USS 53 state and federal dollars dedicated

#### 20% of children

In 2018, one in five children in Marion County was affected by chronic asthma. This is double the rate in the state of Indiana and the US average (6).

### Air pollution3 2<sup>nd</sup> highest

In 2019, Indianapolis had the 2nd highest level of ambient air pollution4 in the state (15, 16).

13th

The Indianapolis metropolitan area is ranked as the 13th most air polluted US city, based on mean annual particulate matter (PM<sub>25</sub>) (16, 17).

#### 60%

Sixty per cent of the Indianapolis population is especially vulnerable to poor air quality (7)

#### BreatheLife City - X

Indianapolis is not part of the BreatheLife global campaign to mobilize cities to address air pollution (18)5 Indianapolis does adhere to reporting standards set by the US Environmental Protection Agency.

<sup>1</sup> Air pollution and climate hazards, such as heatwaves, increase the risk of cardiovascular diseases and respiratory conditions. They pose a particular risk to vulnerable groups, such as older people, children, and those with chronic respiratory conditions or pre-existing medical conditions (4, 7).

<sup>&</sup>lt;sup>2</sup> In this context, historic values represent an average value between the period of 1951-2014. Estimates are high emissions scenario.

Many of the drivers of climate change, such as inefficient and polluting forms of energy and transport systems, also contribute to air pollution

<sup>&</sup>lt;sup>4</sup> Ambient air pollution in this context refers to fine particulate matter with diameter less than 2.5 microns (PM<sub>25</sub>).

<sup>&</sup>lt;sup>5</sup> The BreatheLife Network and global campaign is a collaboration between WHO, the Climate and Clean Air Coalition, the United Nations Environment

Programme, and the World Bank.

## Climate Change is an Equity Issue

The root causes of climate change, environmental injustice and racial inequality are the same.

## On a global scale:

• The United Nations has recognized climate change as a 'threat multiplier', especially for women and girls

## On the local level:

Successful solutions prioritize marginalized communities – targeted universalism

## **Thrive Indianapolis**

Indy's Plan for Community Resilience + Sustainability

## A sustainable

Indianapolis provides equitable services and supports inclusive, healthy, & happy neighborhoods.

A **resilient** Indianapolis is better able to anticipate, adapt, & flourish in the face of change.



**Vision** | Indianapolis is an authentic, inclusive city with healthy, happy, and resilient neighborhoods

## Climate Change in Indianapolis









2.2°F

10 TO 15

16.1%

4%

INCREASE IN
AVERAGE
ANNUAL
TEMPERATURE

ADDITIONAL
DAYS
OVER 95°F IS
PROJECTED
BY 2050

TOTAL
ANNUAL
PRECIPITATIO
N INCREASE
SINCE 1950

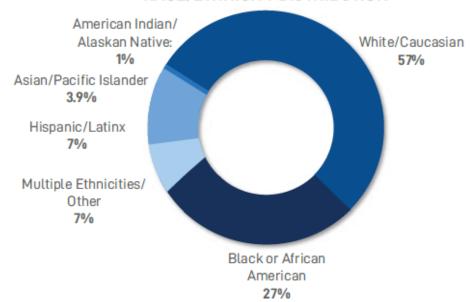
TOTAL
VOLUME OF
RAINFALL
INCREASE
SINCE 1981

## **Planning & Engagement**

Total Reach: **265,000+ residents**Total Events: **150+** 

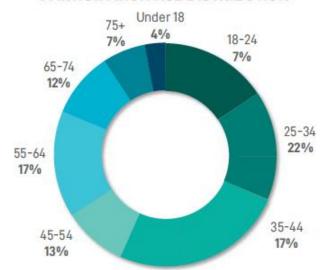
Total Survey Respondents: 3,152

#### RACE/ETHNICITY DISTRIBUTION



Focus Groups included residents self-identifying as homeless, formerly incarcerated, lowincome, or veteran

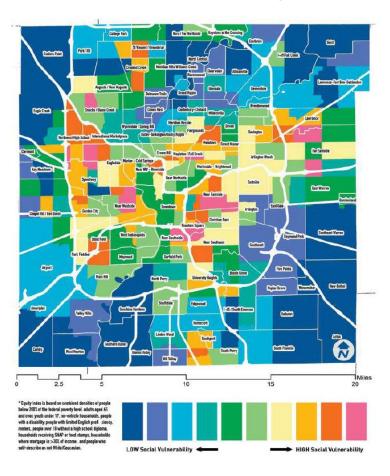
#### PARTICIPATION AGE DISTRIBUTION



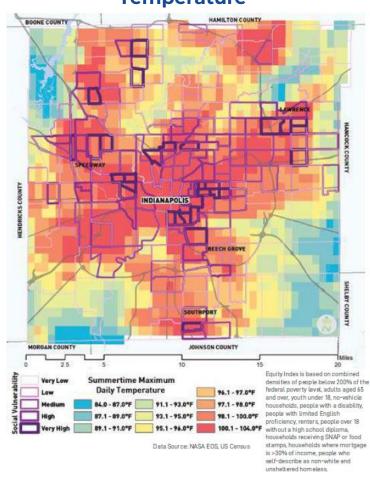
Note: Total is slightly less than 100% due to a few respondents selecting more than one answer choice and/or rounding.

## Climate Impacts and Social Vulnerability in Indianapolis

## **Social Vulnerability**



## Summertime Maximum Daily Temperature



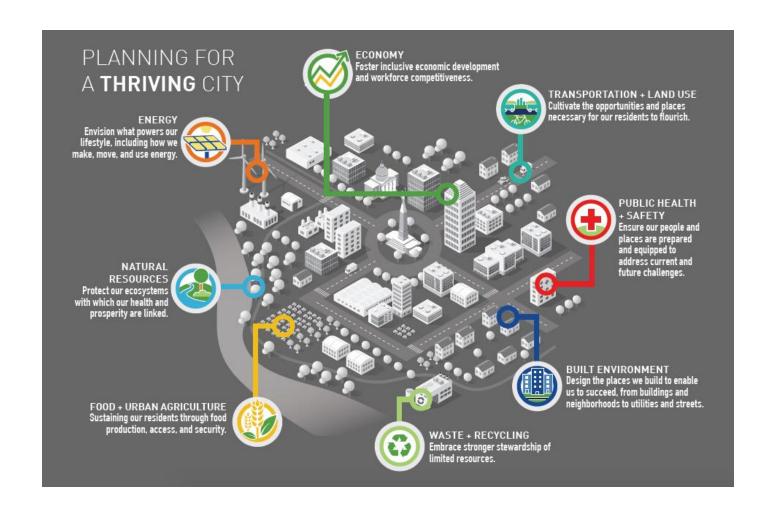
## **Thrive Components**

- Two overarching goals related to climate change:
  - 1. Increase community resilience by prioritizing equity in policy, planning, & project implementation
  - 2. Achieve net zero greenhouse gas (GHG) emissions by 2050
- Four Core Values
- Capacity Building | Equitable Services | Poverty Reduction | Fiscal Responsibility
- **Eight** Plan Elements

Built Environment | Economy | Energy | Food & Agriculture | Natural Resources | Public Health & Safety | Transportation & Land Use | Waste & Recycling

- 16 Key Objectives & 59 Action Items
- 20 Performance Metrics
- Nine Output Metrics

## Plan Elements, Objectives & Action Items



## Panel Discussion



## **PUBLIC HEALTH & SAFETY**

OUR VISION The health and safety of the public is a priority and is address through community programs that promote overall well-being and physical activity as well as work to ensure that all residents are safe, have access to affordable healthcare and are prepared for climate- and human-related hazards.



## **ECONOMY**

OUR VISION Indianapolis is a world-class city with a resilient, diverse and inclusive economy that ensures good paying and fulfilling jobs as well as upward economic mobility opportunities for all.



## **FOOD & URBAN AGRICULTURE**

OUR VISION All residents have access to healthy, affordable food, and we have created pathways to grow our agricultural sector.



## NATURAL RESOURCES

OUR VISION Natural Resources are clean, conserved and restored where possible and accessible for all members of the community to enjoy.



## **TRANSPORTATION & LAND USE**

OUR VISION Transportation & Land Use are connected systems that focus on equitable accessibility to multiple modes of low-emission transportation and development that creates active living spaces that are affordable, multi-use and foster inclusive neighborhoods.

# Table-Top Exercise & Discussion

# Group Discussion & Wrap-up



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