



## Appendix A: City of Grand Rapids Climate History

For decades, the City of Grand Rapids has been at the forefront of investing in sustainability and climate resilience. While the City has established a formal Office of Sustainability to inform the path forward with respect to this immense challenge, the values of environmental protection and resource conservation have historically extended into each department of the City's operations. As with any organization, these values began with support from executive leadership.

With sustainability and environmental conservation being established as priorities under Mayor George Heartwell's administration in the early 2000's, succeeding Mayor Rosalynn Bliss built upon Heartwell's early actions by joining initiatives like We Are Still In, Climate Mayors, and the Mayors for Solar Project. City Manager Mark Washington recognized the urgency of climate change and helped to emphasize a focus on sustainability across the City organization by naming sustainability as a core City value and including Health & Environment as one of six priority focus areas in the City's [Strategic Plan](#). As a whole, the City of Grand Rapids City Commission declared climate change a crisis in 2021.

The timeline below outlines the City's major accomplishments dating back to 1980 as they relate to environmental sustainability. With a deep demonstrated history of commitment to sustainability, the City fully intends to continue these investments to further uphold the core value of sustainability.

### **1980**

- Mobile GR began reducing single occupant vehicle usage and transportation-related carbon emissions with financial support for the DASH, a free shuttle bus in downtown Grand Rapids

### **2002**

- A 20-year Community Master Plan was published that encourages smart growth principles, moving away from sprawling development in favor of revitalizing the central core and strengthening long-established neighborhoods

### **2005**

- City of Grand Rapids began pursuing sustainability as a priority and enters an agreement with Grand Rapids Public Schools, Grand Rapids Community College, Grand Valley State University, and Aquinas College, resulting in the creation of the Community Sustainability Partnership to guide organizations with a triple bottom line approach: restoring environmental integrity, improving economic prosperity, and promoting social equity in the community

- Mayor George Heartwell signed the [U.S. Conference of Mayors Climate Protection Agreement](#) with the commitment to enact policies and programs to meet or exceed the GHG emissions reduction target suggested for the U.S. in the Kyoto Protocol (7% reduction from 1990 levels by 2012)

## 2006

- City created its first Sustainability Plan which calls for tracking progress towards sustainability outcomes across the organization
- Grand Rapids became the first U.S. city to be designated by the United Nations University as a Regional Centre for Expertise in Education for Sustainability Development

## 2009

- Grand Rapids had the [most LEED \(Leadership in Energy and Environmental Design\) certified buildings per capita in the U.S.](#)

## 2010

- City of Grand Rapids became one of the first municipalities to provide [free, single-stream curbside recycling](#) for residents
- Grand Rapids was named [Most Sustainable Mid-Sized City](#) by U.S. Chamber of Commerce Business Civic Leadership Center and Siemens Corp

## 2011

- The [Green Grand Rapids Report](#) updated the 2002 Community Master Plan with a focus on sustainability and green infrastructure, including a goal of reaching 40% urban tree canopy coverage

## 2012

- Mayor George Heartwell received the [Climate Protection Award](#) from the U.S. Conference of Mayors

## 2013

- A [Stormwater Master Plan](#) was published that recommends proactive planning for climate change
- Mayor George Heartwell was appointed to [President Obama's Task Force on Climate Preparedness and Resilience](#) with 26 other state, local, and tribal leaders to advise the White House on what the federal government can do to help the country weather climate change

- [Climate Resiliency Report](#) was published in partnership with the West Michigan Environmental Action Council
- City committed nearly \$15 million to improve flood walls in response to flooding that caused \$1.4 million in damage

## 2015

- Grand Rapids was one of the first and only cities to have [successfully separated stormwater and wastewater systems](#), at a cost of \$400 million, preventing untreated sewage from being discharged into the Grand River during intense rain events

## 2016

- Mayor Rosalynn Bliss established the Mayor's Greening Initiative, inviting community to plant hundreds of trees in Grand Rapids to help meet the City's goal of reaching 40% urban tree canopy coverage
- Environmental Services Department won an [American Public Works Association Project of the Year Award](#) for the Water Resource Recovery Facility's innovative energy efficiency program that will save \$2.2 million in energy costs through 2031

## 2017

- Grand Rapids received Gold recognition in Innovation and Program Management for the Water Environment Federation's [National MS4 Stormwater and Green Infrastructure Award](#)
- City began construction of an \$85 million [biodigester](#) at the Water Resource Recovery Facility (WRRF) to save costs, prevent 40% of solid waste from going to landfills, generate renewable natural gas, and reduce emissions at the WRRF by 32%
- Grand Rapids was selected as one of 12 cities to participate in the [Zero Cities Project](#), a 3-year initiative hosted by the Urban Sustainability Directors Network to develop a policy roadmap that leads to a zero net carbon building sector by 2050
- City Commission established the [Property Assessed Clean Energy \(PACE\) Program](#), a financing tool for commercial property owners to pay for energy efficiency, water efficiency, and renewable energy upgrades

## 2018

- City's Vital Streets Plan won [Silver National Planning Achievement Award for Transportation Planning](#) from the American Planning Association

- Six City-owned buildings earned an [EPA ENERGY STAR certification](#)
- Mayor Bliss appointed community members to an [Energy Advisory Committee](#) to create a comprehensive energy management plan that includes strategies for renewable energy and energy efficiency for municipally owned facilities and a broader greenhouse gas emissions plan
- Grand Rapids achieved [Gold status in the Michigan Green Communities Challenge](#)
- City began tracking the volume of stormwater being diverted from wastewater systems (*as of 2025, more than 2.1 million gallons of stormwater have been successfully diverted*)
- Flooding in 2018 reached comparable water levels as seen in 2013, but due to investments made to infrastructure after events of 2013, the City sustained less than \$100,000 in damages

## 2019

- City Commission adopted a four-year [Strategic Plan](#) that named sustainability as a core City value and included Health & Environment as one of six priority focus areas
- City Commission approved Grand Rapids' first comprehensive [Bicycle Action Plan](#)
- City partnered with local leaders and environmental advocates to create the Community Collaboration on Climate Change (C4) which acted as a key partner for the City in climate change, environmental justice, and sustainability initiatives
- Office of Equity and Engagement launched the Equitable Grand River Restoration Initiative with \$300,000 from the W.K. Kellogg Foundation
- City earned [SolSmart Silver Certification](#) for zoning and permitting preparations for solar development
- Parks Superintendent Joe Sulak earned [Sustainable Sites Initiative \(SITES\) certification](#) for developing and managing parks that promote public health, sustainability, recreation, and education

## 2020

- Former Sustainability & Performance Management Officer, Alison Waske Sutter, was appointed by Governor Whitmer to serve on the state's inaugural [Michigan Advisory Council for Environmental Justice](#)

- West Michigan Sustainable Business Forum honored City of Grand Rapids with the [Triple Bottom Line Leadership Award](#)
- City formally created the Office of Sustainability within the Executive Office
- Grand Rapids ranked 33<sup>rd</sup> out of 100 in [ACEEE 2020 City Clean Energy Scorecard](#)
- The Greater Lansing Chapter of the United Nations recognized the City of Grand Rapids with [Global Goals – Local Leaders Award](#) for promoting Sustainable Development Goal #11: Sustainable Cities & Communities
- City Commission amended the cannabis licensing ordinance to include environmental sustainability and energy requirements
- Economic Development piloted the Building Retention and Incentive Program (BRIP) that incorporated additional funding for Third Ward projects and implemented environmentally friendly upgrades to their facilities.

## 2021

- CBRE recognized Kent County as one of the [most resilient counties in the US](#)
- Grand Rapids earned its [23<sup>rd</sup> Tree City USA Award](#) and a Tree City USA Growth Award
- Grand Rapids ranked 5<sup>th</sup> in the U.S. EPA's list of [Top Mid-Sized Cities for ENERGY STAR Certified Buildings](#)
- Grand Rapids metro area [ranked 2nd in Site Selection's 2021 Sustainability Rankings](#)
- The City of Grand Rapids City Commission declared climate change a crisis (*see full resolution at the end of Appendix A*)
- City Manager Mark Washington announced [carbon reduction goals for municipal operations that exceed Paris Climate Accord targets](#): 85% reduction by 2030 and net-zero by 2040.
- The City passed a legislative agenda investing in environmental protection, conserving natural resources, and reducing greenhouse gas emissions
- Office of Sustainability added two new staff positions: a Climate & Environmental Justice Specialist and a Healthy & Sustainable Buildings Policy Specialist

## 2022

- Grand Rapids Policies & Programs for Equitable, Healthy, & Zero Carbon Buildings ([E.H.Zero](#)) Initiative launched publicly in partnership with Michigan Green Building Collaborative and Urban Core Collective after securing \$815,000 in grant funding support
- Grand Rapids joined 32 other state and local governments to participate in the [White House Building Performance Standards Coalition](#)
- City Commission approved an agreement between the City, The Rapid, and DTE to supply [renewable natural gas from the City's biodigester to fuel The Rapid's buses and City fleet vehicles](#), a partnership which saves money, cuts GHG emissions, reduces waste, and supports The Rapid in retiring diesel buses
- City adopted [Fiscal Year 2023 budget](#) that includes \$208.5 million in strategic Health & Environment priority investments such as equitable climate action and adaptation planning, lead service line replacements, parks and green space, and sustainable equipment and infrastructure
- City completed construction of a nearly [1 MW solar array at the Lake Michigan Filtration Plant](#) that will generate net savings of approximately \$1.55 million over 24 years and increase City's renewable energy performance
- Environmental Services Department was recognized for the exceptional performance of the Water Resource Recovery Facility in the [Utility of the Future Today](#) Program by the National Association of Clean Water Agencies
- MSHDA MI-HOPE Program awarded Community Development with \$1 million in home repair funding, with \$250,000 being reserved to launch the E.H.Zero Home Renovation Pilot Program to provide energy efficiency updates to at least 10 homes to begin creating a local model for reducing emissions from existing homes
- A [Regional Hazard Mitigation Plan](#) was created through a partnership of Kent County, Ottawa County and the City of Grand Rapids that describes local climate change impacts and identifies risks, vulnerabilities, and mitigative efforts to prepare for and respond to hazards present in the area
- City Commission adopted the City's updated Strategic Plan, which enhances the Sustainability value to add more emphasis on climate resiliency, outlining the City's goals

of achieving long-term net positive benefits that are informed by an understanding of how those decisions will impact climate resiliency and the environment, people and communities, and finances

## 2023

- City adopted [Fiscal Year 2024 budget](#) that appropriates \$201 million toward strategic Health & Environment priority investments, including nearly \$27 million to address greenhouse gas/carbon mitigation and climate adaptation
- Public Works department converted a transfer station to a permitted composting facility

## 2024

- City published a [community-wide Greenhouse Gas Emissions Inventory report](#) and announced two [community-wide, science-based emissions reduction goals](#) of 62.8% per capita by 2030 and 100% reduction per capita by 2050
- City of Grand Rapids collaborated on the [West Michigan Healthy Climate Plan](#), a comprehensive climate action plan for reducing GHG emissions in Ionia, Kent, Montcalm, & Ottawa Counties prepared by the Grand Valley Metro Council
- City adopted [Fiscal Year 2025 budget](#) that appropriates \$232.9 million for strategic Health & Environment priority efforts, including \$3 million for infrastructure improvements to pave the way for a future solar installation at the Butterworth Landfill
- City completed a [Climate Risk and Vulnerability Assessment](#) in partnership with ICLEI, bringing together climate information and community insights to understand how to prepare for the local impacts of climate change
- Mobile GR launched [DART GR](#), an electric vehicle car share program
- Equitable, Healthy, & Zero Carbon Buildings ([E.H.Zero](#)) Initiative was awarded an additional \$251,662 in funding through 2025 from the Wege Foundation, bringing total funding raised to \$1.3 million
- City completed the multi-year [conversion of 18,000 City streetlights to low-power LED lighting](#) that began in 2021 which will result in \$350,000 in annual energy savings while reducing emissions and increasing safety

- Environmental Services Department conducted the installation of significant stormwater detention at Joe Taylor Park and Mary Watters Park, with \$1.13 million spent on storm water infrastructure in fiscal year 2024
- Department of Planning, Design and Development elevated focus on climate change in the next 20-year [Community Master Plan](#)

## 2025

- Office of Sustainability added two new staff positions: an Energy & Carbon Specialist and an Education & Engagement Coordinator
- The City of Grand Rapids in partnership with the Great Lakes Renewable Energy Association began the GR Solarize program designed to lower the cost for residents in Grand Rapids to buy solar energy for their properties through a community-based bulk-buy program.

## [City of Grand Rapids Climate Change Resolution](#)



# CITY OF GRAND RAPIDS AGENDA ACTION REQUEST

**DATE:** September 28, 2021

**TO:** Mark Washington, City Manager

**COMMITTEE:** Committee of the Whole

**LIAISON:** Mark Washington, City Manager

**FROM:** Alison Sutter, Sustainability and Performance Management Officer  
Executive Office

**SUBJECT:** **Resolution Declaring Climate Change a Crisis**

The scientific, economic and public health data is clear that climate change is having catastrophic impacts on our human health, economy, infrastructure and safety. The amount and speed of greenhouse gas emissions being released is driving what some experts believe will result in significant and irreversible changes that could have catastrophic effects for humans, particularly for communities of color and low-income communities, who are impacted first and worst by climate change. Because humans have too easily ignored climate change for decades, we are now experiencing and will continue to experience a climate crisis until we collectively take bold action to reduce greenhouse gas emissions, prioritize climate adaptation and focus on climate resiliency. The City of Grand Rapids has been a leader in sustainability, environmental justice and climate change and has committed via our Strategic Plan to continue emphasizing and prioritizing climate change and climate justice work. The City Commission can also take bold action by passing a resolution declaring a climate crisis.

## **What is climate change and what are the changes happening in and to the city of Grand Rapids?**

Climate change is complicated and scientific, making it inaccessible, easy to ignore, or confusing for many. Further compounding the issue is a lack of awareness and understanding of direct and indirect climate change impacts to our Grand Rapids residents, businesses and municipal government.

The Earth is warmed through two different processes: solar radiation and infrared radiation absorbed and re-emitted in all directions by greenhouse gases (GHGs) and clouds (this is known as the “greenhouse effect”). GHGs include carbon dioxide, methane, nitrous oxide, and fluorinated gases and are most often referred to collectively as “carbon emissions.” As GHG concentrations in the atmosphere increase, more infrared radiation is reflected back to and absorbed by the Earth’s surface increasing the greenhouse effect and global warming. And cities are responsible for generating more than 70% of global carbon emissions.

NASA indicates that the current level of atmospheric carbon dioxide has increased by 47% since the beginning of the Industrial Age.<sup>1</sup> In short, the amount of GHGs in our atmosphere is increasing at an alarming and significant rate, which is causing our Earth's temperature to increase, which in turn is driving climate change. While many people will point to the very cold and snowy winter we had recently as a counterargument to global warming and climate change – it's important to remember that climate change is a measure of long-term averages and trends (often 30 years) of data.

Grand Rapids' changing climate is causing immediate threats to our residents, health, economy, and community vitality. We know that over the last 50-70 years we have experienced increased: average annual temperatures, nighttime temperatures, annual precipitation, and frequency and intensity of severe storms.<sup>2</sup> More importantly, we know the climate in Grand Rapids will continue to change with scientific projections showing that Grand Rapids is expected to experience an increase of 3-5 degrees F in average air temperature (6-10% increase; especially in winter), 12-31 more days with a temperature greater than 90 degrees F (153-381% increase) and 0.4-1.7 more days with more than 1.25 inches of precipitation (11-45% increase).<sup>3</sup>

### **Why is climate change a crisis?**

Climate change has been and will continue to significantly impact human health (physical and mental); essential services and critical infrastructure; economic prosperity for businesses, organizations, and individuals; social networks; cultural identity; safety; and environmental systems. In one of President Biden's first Executive Orders, he stated "[t]he United States and the world face a profound climate crisis. We have a narrow moment to pursue action at home and abroad in order to avoid the most catastrophic impacts of that crisis and to seize the opportunity that tackling climate change presents." Furthermore, President Biden's executive order states that "[t]he scientific community has made clear that the scale and speed of necessary action is greater than previously believed. There is little time left to avoid setting the world on a dangerous, potentially catastrophic, climate trajectory."<sup>4</sup>

In addition, the International Panel on Climate Change (the United Nations body for assessing the science related to climate change) recently published its [Sixth Assessment Report, Climate Change 2021: The Physical Science Basis](#), stating "[h]uman-induced climate change is already affecting many weather and climate extremes in every region across the globe. Global warming of 1.5 degrees Celsius and 2 degrees Celsius will be exceeded during the 21<sup>st</sup> century unless deep reductions in carbon dioxide (CO<sub>2</sub>) and other greenhouse gas emissions occur in the coming

<sup>1</sup> NASA. (2020, March 3). The Atmosphere: Getting a Handle on Carbon Dioxide. Climate Change: Vital Signs of the Planet. <https://climate.nasa.gov/news/2915/the-atmosphere-getting-a-handle-on-carbon-dioxide/#:%7E:text=The%20concentration%20of%20carbon%20dioxide,it%20was%20near%20370%20ppm>

<sup>2</sup> City of Grand Rapids Climate Change Vulnerability Assessment for Stormwater (in development). City of Grand Rapids and Great Lakes Integrated Sciences and Assessments.

<sup>3</sup> City of Grand Rapids Climate Change Vulnerability Assessment for Stormwater (in development). City of Grand Rapids and Great Lakes Integrated Sciences and Assessments.

<sup>4</sup>The White House (2021, January 27). Executive Order on Tackling the Climate Crisis at Home and Abroad. The White House. <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/>

decades. Many changes due to past and future greenhouse gas emissions are irreversible for centuries to millennia. From a physical science perspective, limiting human-induced global warming to a specific level requires limiting cumulative CO<sub>2</sub> emissions, reaching at least net zero CO<sub>2</sub> emissions, along with strong reductions in other greenhouse gas emissions.”

The Michigan Department of Health and Human Services (MDHHS) has identified five issues as Michigan’s priority climate-related health impacts: respiratory conditions, heat illness, waterborne diseases (algal blooms), vector-borne diseases (Lyme disease, West Nile Virus, etc.), and physical and mental health impacts.<sup>5</sup> The MDHHS shared that the annual cost per patient for asthma is \$2,500 with a \$92.4 million cumulative annual impact; extreme heat causes an estimated 33 additional deaths per year at a cost of \$42 million annually; and in 2012, 157 Lyme disease-related hospitalizations and 11 emergency department visits were estimated to have resulted in \$8 million in health costs.<sup>6</sup>

In the 1980s and 1990s, Michigan experienced five or less billion-dollar disasters per year from weather and climate events. In the 2000s and 2010s, Michigan experienced double and triple that number, 10 and 15 respectively.<sup>7</sup> In addition, U.S. Senator Gary Peters shared that the Government Accountability Office has determined that “[s]ince 2005, federal funding for disaster assistance is approaching half a trillion dollars.”<sup>8</sup>

These impacts will exacerbate inequities in our community because some people are more vulnerable to climate change than others – meaning they are more likely to be negatively affected by climate change. The U.S. Department of Commerce, 2016 American Census Survey data reported by Headwaters Economics’ Populations at Risk Tool, [headwaterseconomics.org/par](http://headwaterseconomics.org/par), illustrates Grand Rapidians that are likely to be more vulnerable to climate change include: renters (45.6%), Black, Indigenous and People of Color (32.4%), residents living in poverty (22.5%), households where mortgage is greater than 30% of income (23.1%), residents with disabilities (13.8%), people over 65 years of age (11.5%), people under 5 years of age (7.4%) and residents with limited English proficiency (4.9%).

Taking into consideration rising sea levels threatening all coastal communities and severe drought in the southwest, coupled with the large amount of fresh water available from the Great Lakes, Michigan is poised to receive a large influx of corporations and individuals looking for a safe and prosperous place to relocate. If we do not adequately prepare for these projected increases now, then climate change impacts will only be compounded and likely made worse.

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<sup>5</sup> Michigan Department of Health and Human Services. (2021). MDHHS - Climate and Health Overview. MDHHS MICHAP. [https://www.michigan.gov/mdhhs/0,5885,7-339-71548\\_54783\\_54784\\_55975-365480--,00.html](https://www.michigan.gov/mdhhs/0,5885,7-339-71548_54783_54784_55975-365480--,00.html)

<sup>6</sup> Michigan Department of Health and Human Services presentation to Michigan Association of Planners Board of Directors Meeting. (Nov. 20, 2020). *Health Impacts from Climate Change and the Public Health Response*.

<sup>7</sup> NOAA National Centers for Environmental Information (NCEI) U.S. Billion-Dollar Weather and Climate Disasters (2021). <https://www.ncdc.noaa.gov/billions/>. DOI: [10.25921/stkw-7w73](https://doi.org/10.25921/stkw-7w73)

<sup>8</sup> U.S. Senate Committee on Homeland Security & Governmental Affairs, U.S. Senator Gary Peters, Ranking Member. (April 2019). *The Cost of Inaction, Failure to Address Financial Costs of Climate Change Will Hurt Taxpayers*.

## **What has and will the City of Grand Rapids do to address the climate change crisis?**

In 2005, the City of Grand Rapids was one of the first cities in the country to adopt sustainability as a priority. A few early actions taken by the City included hiring a sustainability consultant, launching the Community Sustainability Partnership (CSP) and creating a 20 percent renewable energy goal. This commitment and these early successes led to the City being the second city in North America to be designated by the United Nations University as a Regional Center for Expertise and Sustainability in 2006 and honored by the U.S. Chamber of Commerce as the Most Sustainable Mid-Sized City in 2010.

Historically, we focused our work predominantly on environmental and fiscal sustainability, energy efficiency and renewable energy – all of which helped mitigate greenhouse gas emissions (climate change mitigation), prepare us for climate changes (climate adaptation) and increase our resiliency (climate resiliency). Our climate change journey more formally launched in 2013 with two key actions. First, we invested nearly \$15 million to improve flood walls located throughout downtown in response to the 2013 flood that caused \$1.4 million in damage to public infrastructure and almost breached the Water Resource Recovery Facility's wastewater treatment processes. Second, in partnership with the West Michigan Environmental Action Council, we published the [West Michigan Climate Resiliency Report](#).

Throughout the 2010s, the City had many climate change accomplishments. In 2010, the City became one of the first municipalities to provide free curbside single stream recycling for residents. In 2015, the City was one of the first and only cities to have successfully separated our stormwater and wastewater systems, at a cost of \$400 million, thereby preventing untreated sewage from being discharged into the Grand River during intense rain events. And since 2015, the City and our partners have planted nearly 9,000 trees at a cost of \$2.5 million in an effort to reach our 40% tree canopy goal (we are currently at 34%). These trees are estimated to provide \$2.6 million annually in ecosystem services.

Mayor Bliss has also actively engaged in and advocated for climate change action. She supported the creation of the Office of Sustainability and full-time leadership within the office. She also created the Mayor's Greening Initiative, raising private funds to plant hundreds of trees throughout the city each year. Mayor Bliss is a part of the We Are Still In and Mayors for Solar Project and has endorsed the Sierra Club 100% Clean Energy initiative. Under her leadership she created the Energy Advisory Committee to bring community members together to push the City to stay at the forefront of energy and climate work. And nationally, she is a member of the U.S. Conference of Mayor's Energy Committee, the Great Lakes and St. Lawrence Cities Initiative and Climate Mayors.

In 2019, the City published our [Strategic Plan](#) (FY2020 – 2023), which includes sustainability as one of the City's six core values. The City defines sustainability as the ability to be maintained; making decisions with an understanding of how those decisions will impact the environment, people and communities, and finances, both today and in the future. We also created our City's vision - Grand Rapids will be nationally

recognized as an equitable, welcoming, innovative and collaborative city with a robust economy, safe and health community, and the opportunity for a high quality of life for all.

Our commitment to addressing climate change is most prominently displayed within the “Health and Environment” priority of our Strategic Plan. The desired outcome of this priority is that the health of all people and the environment are advocated for, protected and enhanced. The first objective under this priority is to reduce carbon emissions and increase climate resiliency. Strategies within this objective include:

- Creating carbon reduction goals and integrating those goals into appropriate City plans, including the Comprehensive Community Master Plan
- Reducing the carbon footprint of City operations (buildings, utilities and fleet)
- Assessing the feasibility and cost of offsetting 100% of City electricity with renewable resources by FY2025
- Creating and supporting programs and policies to reduce carbon emissions from the building and transportation sectors throughout the community
- Creating a Climate Action and Adaptation Plan in partnership with the community
- Working with community partners and businesses to achieve a 40% tree canopy

Some of our most recent notable sustainability and climate change accomplishments include:

- City Manager Washington approved one of the most progressive short and long-term carbon emissions reduction goals for municipal operations (85% reduction by 2030 and carbon neutral by 2040, as compared to 2008), which exceed the Paris Climate Accord target as well as targets established by President Biden and Governor Whitmer and that could cost the City between an estimated half a million and a million dollars annually for 24 years to achieve an 85% reduction based on best information available at this time, which includes constructing solar at Butterworth
- City Commission adopted 2021-2022 Legislative Priority Agenda includes responsibly protecting our environment and conserving our natural resources through policies and investments that increase climate resiliency, reduce carbon emissions, and support renewable energy production at industrial, community and residential scale
- Reducing municipal carbon emissions by 30% since 2008 and estimating a 47% reduction by 2025 (due in part to our biodigester and LED street lighting)
- Receiving necessary approvals to construct a nearly 1 megawatt ground mounted behind-the-meter solar array at our Lake Michigan Water Filtration Plant that will generate net savings of approximately \$1.2 million over 24 years and increase our City’s renewable energy performance from 37.5% to 41%
- Intervening in Michigan Public Service Commission (MPSC) cases regarding distributed generation and voluntary green pricing programs
- Participating in the Zero Cities Project and launching Grand Rapids Policies and Programs for Equitable, Healthy and Zero Carbon Buildings (E.H.Zero) in partnership with the Urban Core Collective and the U.S. Green Building Council of West Michigan

- Catalyzing, building and supporting the creation and launch of a three-year Community Collaboration on Climate Change (C4) initiative
- Leading the nation on green infrastructure with over 9 million gallons of stormwater infiltrated since 2014 at a cost of \$60 million
- Mobile GR's work to reduce single occupant vehicle usage and transportation-related carbon emissions, including financial support for the DASH
- Hiring an Environmental and Climate Justice Specialist
- Investing \$85 million to construct a biodigester at the Water Resource Recovery Facility (WRRF) that avoids \$120 million in costs to expand the WRRF, includes the largest membrane system in the country and is the first to combine several elements (biodigester, renewable natural gas, phosphorus recovery), will generate 125,000 MMBtu's of renewable natural gas (equivalent of 1 million gallons of gasoline that power 22 million miles driven by an average passenger vehicle) and will reduce carbon emissions by 3,330 metric tons of carbon dioxide equivalents, which is a 32% reduction in emissions for the WRRF

While we have invested more than \$600 million over the years in climate mitigation, adaptation and resilience and achieved many successes, the work is far from over, especially in light of the crisis that we face locally in Grand Rapids as well as globally. Grand Rapids cannot foster a robust economy and Grand Rapidians cannot be safe and healthy in a city where the local governing body is not urgently and systematically addressing climate change. Over the course of FY22, we will continue to pursue solar for our Butterworth Landfill, complete a communitywide carbon emissions inventory, launch our E.H.Zero initiative to focus on pathways to equitably decarbonize buildings, continue to emphasize environmental justice, climate change and sustainability in the Community Master Plan development process, finalize a vulnerability assessment and revise the regional hazard mitigation plan, and begin laying the foundation in partnership with the C4 and other community stakeholders to draft our Climate Action and Adaptation Plan, which will include communitywide carbon emissions reductions goals.

### **We are not alone in this work**

As the evidence continues to mount and as cities continue to suffer from the devastating impacts of climate change, more and more cities are declaring climate change a crisis or climate change emergencies. In Michigan, the following municipalities have already declared climate change emergencies: Washtenaw County (Sept. 2019), City of Kalamazoo (Oct. 2019), City of Ann Arbor (Nov. 2019), Kalamazoo County (Dec. 2019), Oakland County (Dec. 2019), Meridian Township (July 2020), Ingham County (July 2020) and City of Montague (Dec. 2020).

In addition to President Biden authoring an Executive Order on the climate crisis, he also created a target for the U.S. to achieve a 50-52% reduction from 2005 levels in economy-wide net greenhouse gas pollution in 2030 and a goal to reach 100% carbon pollution-free electricity by 2035. These commitments are “part of the President’s focus on building back better in a way that will create millions of good-paying, union jobs, ensure economic competitiveness, advance environmental justice, and improve the

health and security of communities across America.”<sup>9</sup> He also directed the Secretary of State and the Secretary of Treasury to lead the development of a climate finance plan.<sup>10</sup>

In the fall of last year, Governor Whitmer signed Executive Order 2020-182 and Directive 2020-10 creating the MI Healthy Climate Plan. Governor Whitmer stated “[t]he science is clear – climate change is directly impacting our public health, environment, our economy, and our families. This dangerous reality is already causing harm throughout Michigan, with communities of color and low-income Michiganders suffering disproportionately.” These executive actions set the goals of economy-wide decarbonization in Michigan by 2050 with a 28% reduction in greenhouse gas emissions below 1990 levels by 2025. Both Steelcase and the Utility Workers Union of America commended the Governor for taking this action.<sup>11</sup>

### **Revisions to the Resolution**

In response to feedback provided on the draft climate change crisis resolution, the following revisions have been made:

- The whereas statement speaking to the City’s E.H.Zero work has been revised to include pursuing education and incentives as components to support achieving equitable, healthy and zero-carbon buildings
- A new whereas statement has been added stating that the City will complete a communitywide carbon emissions inventory by June 30, 2022
- The fourth be it resolved item has been added committing the City to engage with the C4, Energy Advisory Committee and other stakeholders over the next twelve months to discuss creating a communitywide carbon emissions goal and coming to a decision as to whether the City will create a communitywide goal
- The fifth be it resolved item has been added stating that the Mayor, City Commission and City recognize that greenhouse gas emissions generated from the transportation, processing and disposal of waste, refuse and recycling are significant and will engage with Kent County regarding waste minimization, refuse disposal, and recycling practices and proposals

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<sup>9</sup> The White House. (2021, April 22). FACT SHEET: President Biden Sets 2030 Greenhouse Gas Pollution Reduction Target Aimed at Creating Good-Paying Union Jobs and Securing U.S. Leadership on Clean Energy Technologies. <https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/22/fact-sheet-president-biden-sets-2030-greenhouse-gas-pollution-reduction-target-aimed-at-creating-good-paying-union-jobs-and-securing-u-s-leadership-on-clean-energy-technologies/>

<sup>10</sup> The White House (2021, January 27). Executive Order on Tackling the Climate Crisis at Home and Abroad. The White House. <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/>

<sup>11</sup> The Office of Governor Gretchen Whitmer. (2020, September). Governor Whitmer Announces Bold Action to Protect Public Health and Create Clean Energy Jobs by Making Michigan Carbon-Neutral by 2050. Michigan.Gov. [https://www.michigan.gov/whitmer/0,9309,7-387-90499\\_90640-540289--,00.html](https://www.michigan.gov/whitmer/0,9309,7-387-90499_90640-540289--,00.html)

YOUR COMMITTEE OF THE WHOLE recommends adoption of the following resolution Declaring a Climate Change Crisis.

WHEREAS, the concentration of greenhouse gases in Earth's atmosphere is increasing at an exponential and unprecedented rate and driving significant increases in average global temperatures and dramatic shifts in climatological and weather patterns; and

WHEREAS, more than 70% of global carbon emissions are generated by cities; and

WHEREAS, the International Panel on Climate Change (the United Nations body for assessing the science related to climate change) recently published its Sixth Assessment Report, Climate Change 2021: The Physical Science Basis, explaining that climate change impacts are impacting everyone across the globe and that in the absence of significant changes that will accomplish zero carbon emissions this decade, changes that are irreversible will occur; and

WHEREAS, the climate in Grand Rapids has already changed significantly over the last 50-70 years, including increased average annual temperature, decreased number of cold days, increased annual precipitation and increased frequency and intensity of severe storms<sup>12</sup>; and

WHEREAS, Grand Rapids is expected to experience an increase in: average air temperature, days with temperatures greater than 90 degrees Fahrenheit (extreme heat days) and heavy precipitation days<sup>13</sup>; and

WHEREAS, climate change impacts the economic prosperity, health and safety of our Grand Rapids residents, businesses and institutions and will increasingly impact our community in the near- and long-term without meaningful intervention; and

WHEREAS, climate change disproportionately negatively impacts Black, Indigenous and People of Color as well as those living in poverty<sup>14</sup>; and

WHEREAS, the City of Grand Rapids has a long history of leadership in sustainability and climate action, as one of the first cities in the country to adopt sustainability as a priority in 2005 and to complete a Climate Resiliency Report (2013); and

WHEREAS, the City has spent an extraordinary amount of money on climate mitigation, adaptation and resilience over the years totally more than \$600 million; and

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<sup>12</sup> City of Grand Rapids Climate Change Vulnerability Assessment for Stormwater (in development). City of Grand Rapids and Great Lakes Integrated Sciences and Assessments.

<sup>13</sup> City of Grand Rapids Climate Change Vulnerability Assessment for Stormwater (in development). City of Grand Rapids and Great Lakes Integrated Sciences and Assessments.

<sup>14</sup> Nazrul Islam, S., & Winkel, J. (2017, October). Climate Change and Social Inequality. United Nations.

[https://www.un.org/esa/desa/papers/2017/wp152\\_2017.pdf](https://www.un.org/esa/desa/papers/2017/wp152_2017.pdf)

WHEREAS, since beginning her service as Mayor, Mayor Bliss has been actively engaged and continues to engage in issues related to climate change; and

WHEREAS, sustainability is one of the City's six core values and the City has committed to reducing carbon emissions and increasing climate resiliency in the City's Strategic Plan; and

WHEREAS, The City of Grand Rapids is one of the first and only cities to have successfully separated the stormwater system from the wastewater system, which was completed in 2015 at a cost of \$400 million, thereby preventing untreated sewage from being discharged into the Grand River during intense rain events; and

WHEREAS, the City of Grand Rapids was one of the first cities to provide free curbside single stream recycling to residents (2010) and recently received certification to compost materials onsite; and

WHEREAS, the City has a 40% tree canopy goal and is currently at 34%, nearly 9,000 trees have been planted within the city by the City and our partners since 2015 at a cost of approximately \$2.5 million and our entire city tree canopy is estimated to provide \$2.6 million annually in ecosystem services; and

WHEREAS, the City has invested \$85 million to construct a biodigester at the Water Resource Recovery Facility (WRRF) that will generate 125,000 MMBtu's of renewable natural gas and will reduce carbon emissions by 3,330 metric tons of carbon dioxide equivalents, which is a 32% reduction in emissions for the WRRF; and

WHEREAS, the City Manager has announced municipal carbon emissions reduction goals of 85% by 2030 and 100% (carbon neutral) by 2040, which exceed the Paris Climate Accord target as well as targets established by President Biden and Governor Whitmer and that could cost the City between an estimated half a million and a million dollars annually for 24 years to achieve an 85% reduction based on best information available at this time, which includes constructing solar at Butterworth; and

WHEREAS, the City has a goal to source 100% renewable energy for municipal operations by FY2025 and is taking steps to accomplish as much as possible through development of alternative energy generation on City properties and facilities; and

WHEREAS, equity is one of the City's core values and the City acknowledges the growing disparities climate change brings to our communities of color and places an emphasis on environmental and climate justice; and

WHEREAS, the City has partnered with our community to fund and launch the Community Collaboration on Climate Change (C4); and

WHEREAS, the City participated as one of eleven cities across the U.S. in the Zero Cities Project and will build upon that work in partnership with community

organizations to develop policies and programs, including education and incentives, that will result in equitable, healthy and zero-carbon buildings through the E.H.Zero initiative; and

WHEREAS, the City will complete a communitywide carbon emissions inventory by June 30, 2022; and

WHEREAS, the City is committed to creating a Climate Action and Adaptation Plan, which will include communitywide carbon emissions goals that are developed in partnership with the community by June 30, 2024; and

WHEREAS, the City will continue to provide regular progress reports and updates on actions taken in response to the climate crisis; and

WHEREAS, the City is committed to working in partnership with the community and businesses to address the climate crisis and will consider climate justice in all policy and administrative decisions, including the Community Master Plan.

**THEREFORE, BE IT RESOLVED** that:

1. The Mayor and City Commission hereby declare climate change a crisis in the city of Grand Rapids and urge all residents, businesses, organizations and public entities to adopt equity-informed policies and practices as soon as possible and no later than 2025 that address carbon reduction, climate adaptation and climate resilience and protect the health, safety, economic prosperity, and quality of life for all in our city; and
2. The Mayor and City Commission will continue to prioritize engaging in state and federal advocacy and lobbying for legislation and regulations that increase climate resiliency, reduce carbon emissions and support renewable energy production as outlined in the 2021-2022 Legislative Priority Agenda; and
3. The Mayor and City Commission affirm the City Manager's adopted municipal carbon emissions reduction goals of 85% by 2030 and 100% (carbon neutral) by 2040; and
4. The City will continue to engage with the C4, Energy Advisory Committee and other stakeholders over the next twelve months to discuss creating a communitywide carbon emissions goal and coming to a decision as to whether the City will create a communitywide goal; and
5. The Mayor, City Commission and City recognize that greenhouse gas emissions generated from the transportation, processing and disposal of waste, refuse and recycling are significant and will engage with Kent County regarding waste minimization, refuse disposal, and recycling practices and proposals.

Prepared by Alicia Bernt

*John H. Brey*  
CORRECT IN FORM  
DEPARTMENT OF LAW

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