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Centering Social Equity in the Climate Action Planning Process: Lessons for Richmond, Virginia

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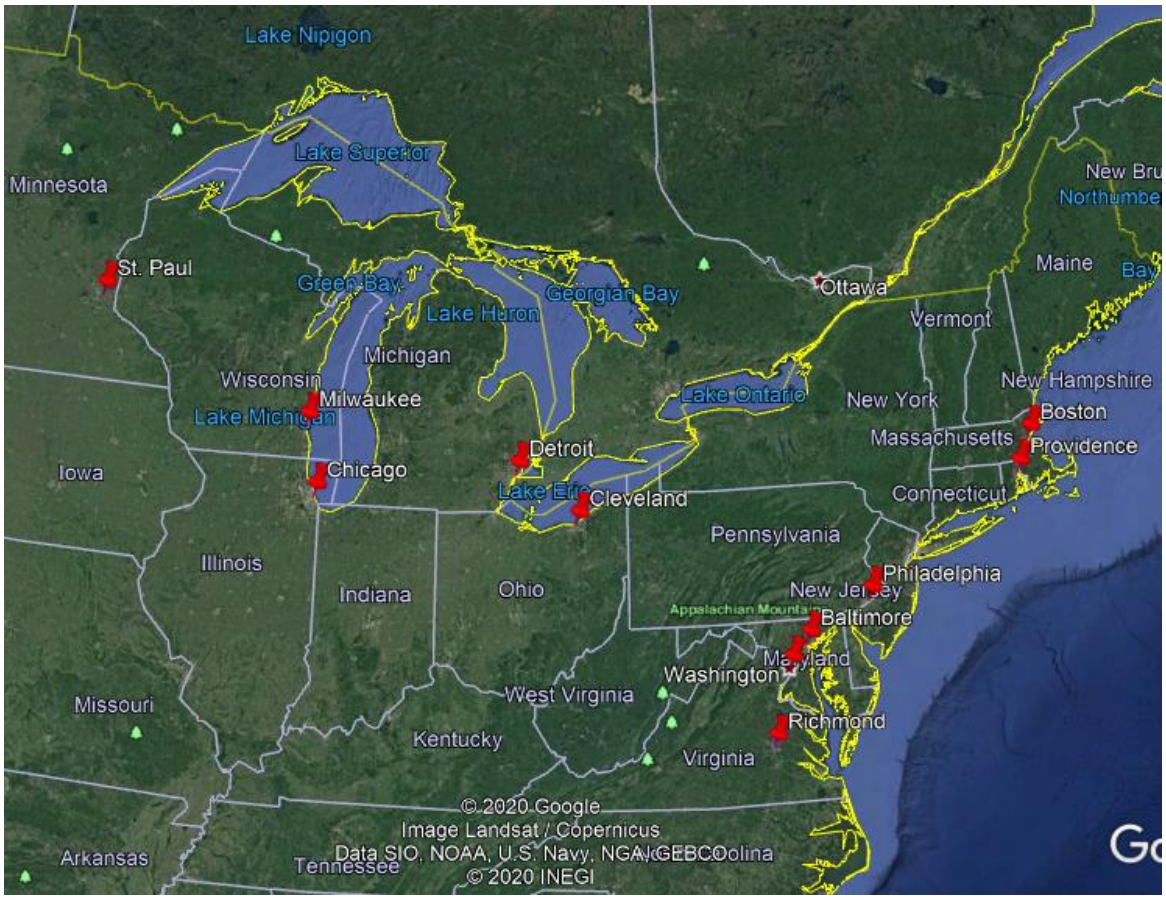
CENTERING SOCIAL EQUITY

in the Climate Action Planning Process:

LESSONS FOR RICHMOND, VIRGINIA



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City of Richmond
RVAgreen 2050

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Centering Social Equity: Lessons for Richmond, Virginia

To my father who taught me to love the outdoors,

and to my mother who is the most natural, and charismatic

social butterfly I'll ever meet.

To my classmates, who taught me the importance of having an open and honest conversation, with whom I know the future of planning is in great hands, and with whom I hope to build lasting friendships.

To my panel, whom without their guidance, combined knowledge and expertise, and generous feedback this plan would never have made it to its current format.

To the City of Richmond, that I'll always consider my home, and with whom I hope its community comes together to co-create a more equitable climate resilient future.

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Executive Summary

This plan creates a framework for centering social equity in climate action planning processes. It includes a content analysis of ten cities' climate action, sustainability or resiliency plans. Each city's community engagement strategy was compared to see if there were common threads in the way the cities centered equity in their climate action planning processes. This plan's analysis compares and contrasts each city's social equity definitions, strategies they used to reach underrepresented individuals, and shifting the power in decision-making from the government to the community. This plan results in a list of best practices and recommendations that reflect on each of the ten cities' planning processes. These are contextualized with the City of Richmond's departments and resources. During the Spring Semester of 2020, bi-weekly meetings with the client, Richmond's Sustainability Coordinator Brianne Mullen included updates on any lessons learned during the community engagement process of RVAgreen 2050.

A majority of this plan was written before the onset of COVID-19, but this author would be remised if she did not mention the four lessons learned because of this global pandemic. First, that COVID-19 inequities are consistent with the climate inequities explained later in this document.[1] Second, that the community engagement strategies mentioned later need to be updated to our new social distancing protocol with new strategies designed for the digital world. Thirdly, a way to reduce our carbon emissions could be to transition the jobs that can be done at home to a permanent telecommuting position, so that less miles are traveled to work. Lastly, this global pandemic brought to the forefront the need for a more resilient public health system, that has a network and supply chain in place with the capacity to obtain medical supplies such as personal protective equipment (PPE) and ventilators, in an equitable manner.

Introduction

The City of Richmond's ***RVAgreen 2050*** "is a community-wide initiative to develop and implement a roadmap of actions", with the desired outcome of an "equitable climate action for a healthy and resilient Richmond."[2] RVAgreen 2050's uses "an innovative planning approach that centers frontline community members and works at the intersection of equity, mitigation, and climate resilience." [3] Figure 1 is a graphic representation that shows that "RVAgreen 2050 is the City's equity-centered, integrated mitigation and climate resilience planning initiative to aggressively reduce community greenhouse gas emissions and help the community adapt to Richmond's climate impacts (extreme heat, extreme precipitation, and sea level rise)." [4]

The two key pieces to RVAgreen 2050 are climate change action and climate change adaptation. First, climate change action, otherwise known as climate change mitigation, is the reduction of greenhouse gas (GHG) emissions that contribute to global warming. The purpose of mitigation actions is to slow and reduce the magnitude of changes in the climate.[5] Mitigation is Richmond's goal to reduce its greenhouse gas emissions by 80% as of its 2008 baseline by 2050. Currently, there is a Resolution to change the goal to net zero emissions by 2050 that is awaiting action by City Council.[6] The City 's greenhouse gas emissions were down 15% as of 2015 from its 2008 baseline.[7] Figure 3 shows Richmond's 2008 baseline and the annual progress with percentage of CO2 reduction and percentage of each category of emission source. Climate change adaptation is also referred as either resilience, preparedness, and readiness. Climate resilience is Richmond's ability to anticipate, accommodate and positively adapt to or thrive amidst changing climate conditions. Richmond is conducting adaptation planning to identify and implement actions that reduce community vulnerability to the impacts of climate change in an effort to help our community adapt to changes in the environment and future changes in sea level.[8] This plan's purpose is to center social equity as a means to correct past harms and prevent future unintended consequences. It addresses the underlying structural and institutional systems that are the root causes of social and racial inequities. The Office of Sustainability's definition of equity will be co-created with the community throughout the planning process.

FIGURE 1. RVAgreen 2050's equity-centered, integrated mitigation and climate resilience planning initiative Source: RVAgreen 2050 website.

FIGURE 2. RVAgreen 2050's progress thus far and future CO2 reduction goals. Source: RVAgreen 2050 website. For more information, please visit: https://www.rvagreen2050.com/what-is-rvagreen-2050/#climate-action

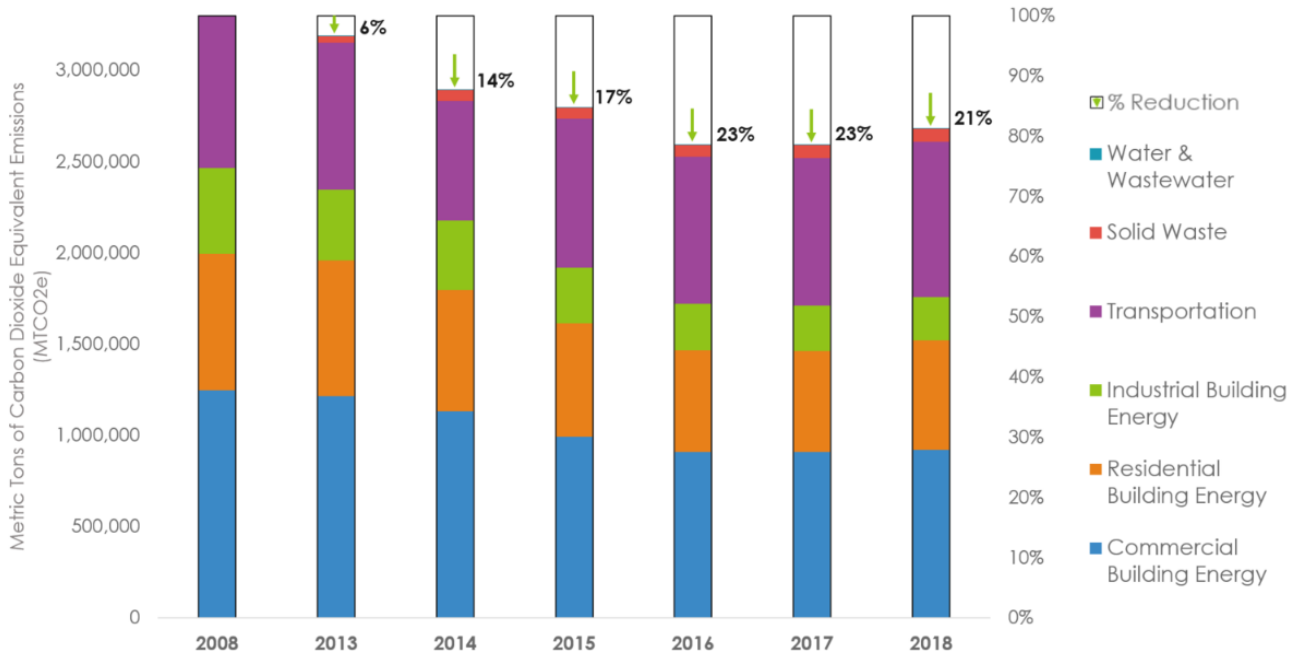

FIGURE 3. RVAgreen 2050's annual climate mitigation progress by CO_2 emission source. Data source: Richmond Greenhouse Gas Inventory

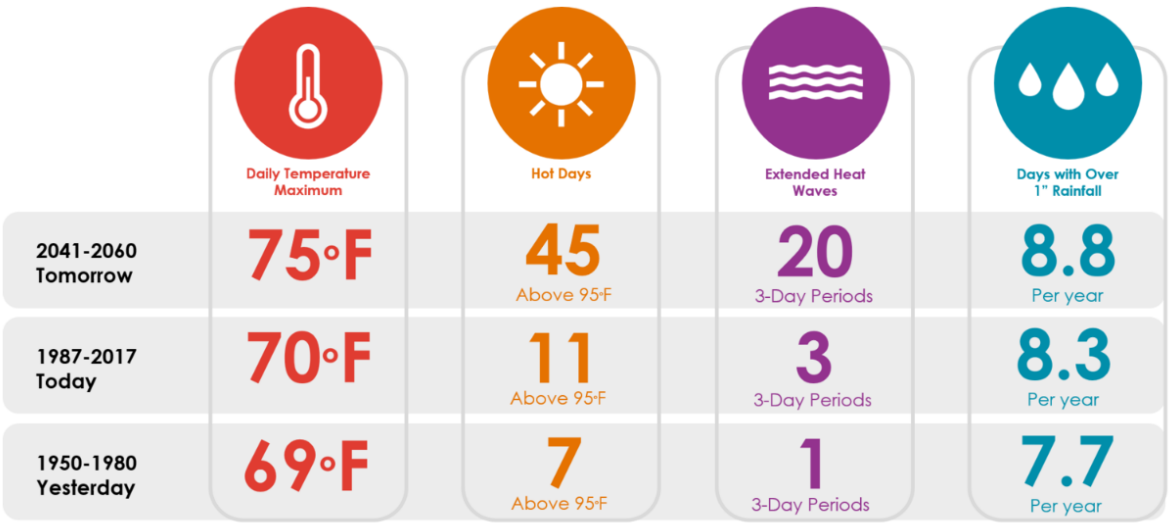

FIGURE 4. RVAgreen 2050's future projections of climate change impacts. Source: RVAgreen 2050 website. Climate Action page: https://www.rvagreen2050.com/what-is-rvagreen-2050/#climate-action

Plan Context

Social Equity

Social equity is just access to resources and opportunities, and adequate participation in the social and cultural life of a community. This is pivotal for promoting livability and vitality, now and in the future.[9] It is innate in democracy where each person is given an equal opportunity to influence the decisions their government makes, on their behalf, and thus have equal access to the resources necessary to participate fully in the political process and make informed decisions. While a community is experiencing growth or evolution, such as an increase of 30,000 individuals within the City of Richmond since 2000 (see fig. 5), the voices of some groups of residents may get lost in the shuffle and go unheard and therefore unanswered.

Frontline Communities

This plan prioritizes frontline communities in the planning process. Frontline communities are the lower income and minority populations that are disproportionately exposed to pollution and environmental hazards.[10] Marginalized communities, generally include minorities, individuals with disabilities, seniors and other impoverished residents.[11] Through socially equitable community engagement these underrepresented communities will be given a voice and decision-making powers in the climate action planning process.

Environmental Justice

For this plan's purpose to be achieved principles of environmental justice must be acknowledged. Environmental justice ensures that everyone enjoys the same degree of protection from environmental and health hazards, and equal access to the decision-making process to have a healthy environment in which to live, learn, and work. Obstacles to increasing environmental justice include—lack of resources, preparedness, social capital, transparency, representation, information, and utilization of community knowledge.

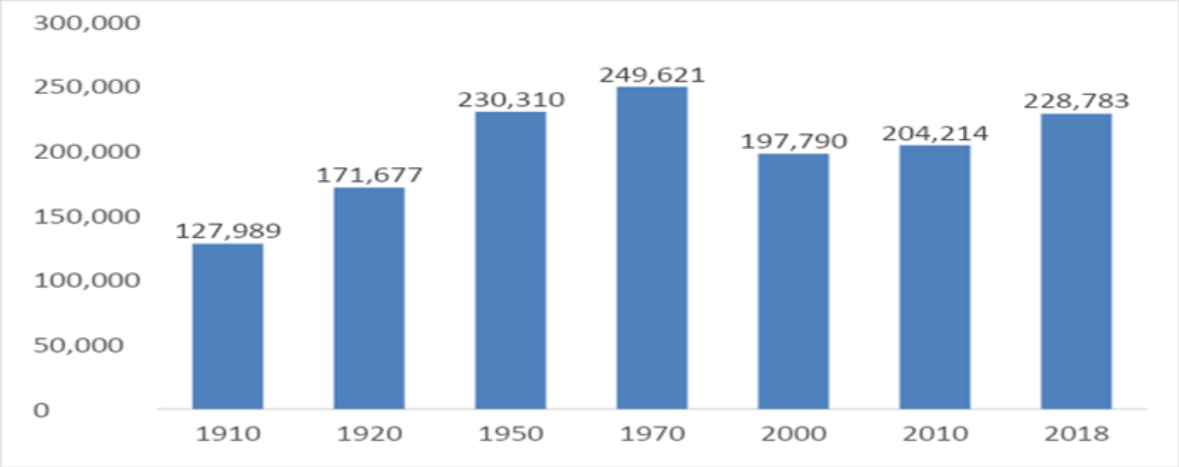

FIGURE 5. Historic Population, 1910-2018. Source: U.S. Census Bureau: 1910, 1920, 1950, 1970, 2000, 2010 Censuses, 2018 Population Est.

Plan Purpose

Richmond's Sustainability Office is in the pre-planning stage of RVAgreen 2050. This plan act as a framework for centering social equity into its climate action planning process. This plan reviews relevant literature and a ten cities' 2018 or 2019 climate action plans to create case examples. Lastly, it locates resources to support implementation. The purpose of this plan is to recommend methodology and provide best practices and recommendations. These include the specific steps required in the planning process to center social equity into RVAgreen 2050. This plan creates a set of best practices for socially equitable community engagement that will act as a possible roadmap for what Richmond's Office of Sustainability does in the early stages of the planning process. Then these best practices will be compared to what the Richmond's Office of Sustainability does in the early stages of the planning process. These will be highlighted as callouts with lessons learned from Richmond's planning process to be inserted with the corresponding best practices in this plan.

Client Description

This client for this plan is the Office of Sustainability at the City of Richmond, Virginia; within the Operations portfolio of the Department of Public Utilities. Its achievements include establishing a new system to measure, manage and reduce the City's energy use, executing the City's first and subsequent greenhouse gas (GHG) emissions inventories and developing Richmond's first sustainability plan, RVAgreen, adopted unanimously by the City Council in July 2012.[12] Currently, the Office is championing RVAgreen 2050- announced by Mayor Levar Stoney within his first 120 days in office, as an initiative to reduce community greenhouse gas emissions 80% by 2050 (40% by 2030). The direct contact at the Office of Sustainability for this professional plan is Brianne Mullen, its Sustainability Coordinator.

Background and Existing Conditions

It is important for the City of Richmond, Virginia to include social equity in its climate action planning process. In the context of Richmond due to its racist history and current structures social equity means racial equity. The Center for Assessment and Policy Development defines racial equity as "Racial equity is the condition that would be achieved if one's racial identity no longer predicted, in a statistical sense, how one fares'… 'to address root causes of inequities not just their manifestation'… ' includes elimination of policies, practices, attitudes and cultural messages that reinforce differential outcomes by race or fail to eliminate them."[13] (see Appendix C). In order to move towards a future where racial equity is centered in every initiative within the City of Richmond, it is important to acknowledge the past transgressions all levels of government as well as the private sector and citizens towards its frontline communities (those that experience climate impacts first and worst). There are key chapters in Richmond's history that must be acknowledged in order to begin an open and honest conversation in an attempt to heal past wounds for the purpose of the city government building trust with the individuals that it has wronged.

Historic Racism in Richmond

This section briefly outlines Richmond's racist historical topics their acknowledgement is essential to starting and continuing the conversations of race and class necessary to accomplish this plan's goal of working collaboratively with frontline communities to co-design a more equitable climate resilient future. In 1808 an act of Congress abolished the international slave trade. As a result, a domestic slave trade developed. Richmond was the largest slave-trading center in the Upper South. At the time, the slave trade

was Virginia's largest industry. As many as two million people were sold from Richmond to the Deep South, as enslaved labor for the cotton industry.[14] In 1861, Virginia seceded from the Union to fight in the Civil War, thus Richmond became the capital of the confederacy.[15] Thus, racism was ingrained in the city, causing African Americans to face continuous systemic abuse.[16] In 1877, Jim Crow laws were enforced in the South, and this targeted discrimination against African Americans lasted nearly a century until the 1950s.[17] During the Jim Crow era, African American lacked the economic opportunities that were afforded to their White counterparts.[18] This caused them to live in a negative cycle of poverty without any hope of climbing the social ladder. In the 1930s, redlining was prevalent in Richmond, this meant that government agencies influenced by powerful real estate lobbies, wrote their policies steeped in what were, at the time, widespread assumptions about the profitability of racial segregation and the residential incompatibility of certain racial and ethnic groups.[19] Furthermore, the segregation of schools resulted in children in black schools receiving less funding when compared to their peers in white schools. Years of de jure segregation caused African Americans to be denied the opportunity that may have had if they lived in a "better" neighborhood, they lacked the choice to better their life and they became susceptible to poverty and crime.[20] In the late 1950s, city and state officials designed the Richmond-Petersburg Turnpike (now part of I-95) to pass through Jackson Ward, separating it in two and tearing down many historic structures. [21] In 1970, Richmond's annexation of Chesterfield County was to dilute the black vote in the city.[22] All of these racist historical events relate directly to the climate inequities Richmond's frontline communities face today, and the next sections explain how.

Climate Vulnerability of Minorities

Fig. 6 shows the percentage of minorities (African-American, Hispanic, Asian, and American Indian) in each of Richmond's census tracts. This map is shown, because in regards to environmental affairs, there is limited participation of people of color. There is also a lack of public advocates who represent minority and low-income communities.[23] To have the same protection as others, the victims of environmental inequities must have access to the decision-making and policy-making processes that govern the siting of hazardous materials and polluting industries.[24]

Minorities are more likely to work for industries that are heavy emitters of greenhouse gases. Any climate action plan that fails to transition these minority workers to new "green energy" jobs threatens to widen the racial economic divide.[25] There is a climate gap, meaning

low-income communities and communities of color are indeed likely to be most vulnerable to the consequences of global warming.[26] The consequences of global warming includes heat waves, increased air pollution, drought, or more intense storms.[27] Global warming impacts our health, economics, and overall quality of life; and impacts society's disadvantaged at a more severe or intense degree.[28]

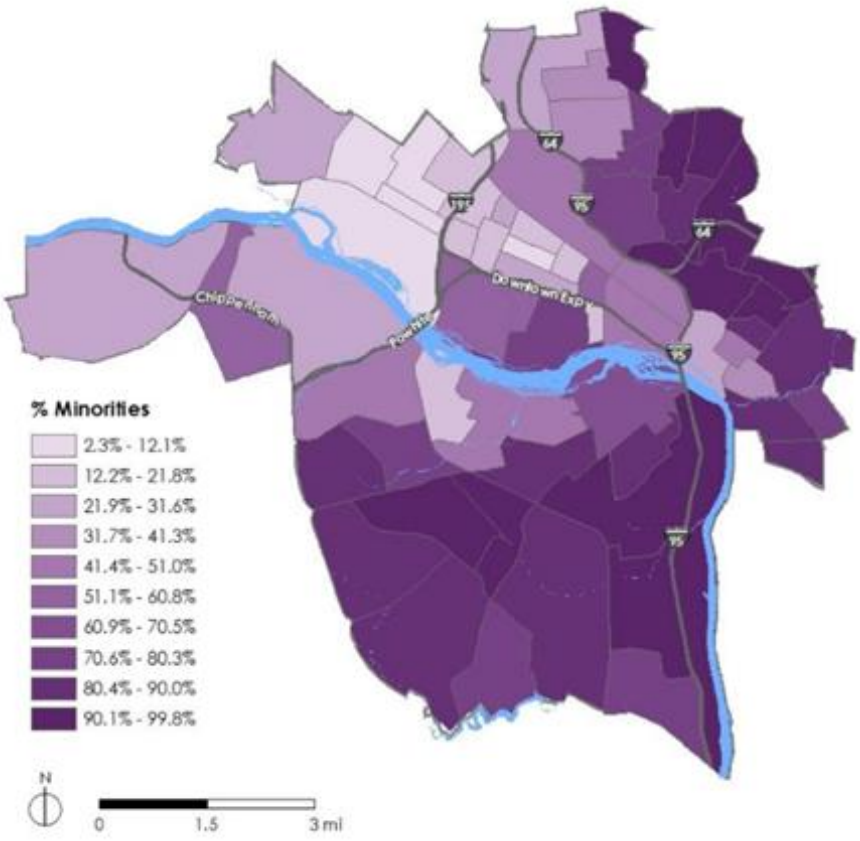

FIGURE 6. % Minorities – (all persons except "White- Not Hispanic or Latino")
Data Source: U.S. Census Bureau, 2012-2016 ACS Survey

Urban Heat Island

The urban heat island effect means that unshaded roads and buildings across the city gain heat through the day and radiate it to the surroundings, increasing air temperature, with highly developed areas experiencing warmer temperatures than their surrounding areas.[29] Heat vulnerability relates to the fact that heat intensity varies from neighborhood to neighborhood within a city; dark surfaces such as asphalt absorb more heat than lighter surfaces, and built materials such as bricks and concrete absorb more heat than grass and vegetation.[30] This means that some sections of a city face higher temperatures on hot days than others (see fig. 7). Since the 1970s, Richmond residents have experienced an increase in the number of days over 95°F per year (these trends are expected to continue); and on these hotter days, Richmond hospitals see an increase in heat-related emergency room visits.[31] African Americans, segregated in the inner city, are more susceptible to the urban heat island effect and they are less likely to have access to air conditioning or cars.[32]

Redlining

Redlining represents a form of structural racism (see Appendix C). The Home Owners Loan Corporation (HOLC), is a 1930s New Deal-era federal program, that graded neighborhoods largely based on the race of residents. This occurred in nearly 250 cities and led to decades of discriminatory practices in lending, insurance and real estate sales. Mapping Inequality, is a project of the University of Richmond's Digital Scholarship Lab, Virginia Tech, the University of Maryland, and Johns Hopkins University that brings the HOLC's archives to the public.[33] Scholars have characterized HOLC's property assessment and risk management practices, as well as those of the Federal Housing Administration, Veterans Administration, and U.S. Housing Authority, as some of the most important factors in preserving racial segregation, intergenerational poverty, and the continued wealth gap between whites and most other groups in the United States.[34]

HOLC used a grading system to make recommendations to good mortgage lenders on where to offer loans to potential home buyers, in grade "C" when it says "lower grade population" it is referring to the black population. Byrd Park neighborhood was given a "C" or "definitely declining" grade by Mr. Arnold, who worked for the still-operating firm Pollard & Bagby.[35] Mr. Arnold's reasons included that black residents walked through the subdivision on the way to Byrd Park and because the segregated school for white children was located in the adjacent black neighborhood.[36]

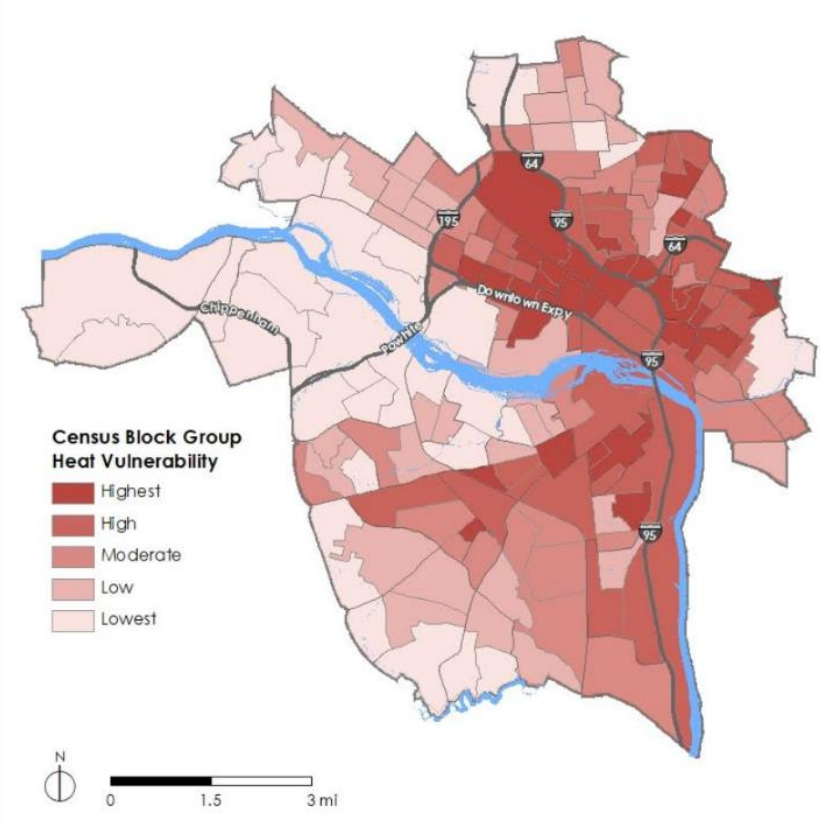

FIGURE 7. Census Block Groups with Heat Vulnerability *Data Source: National Land Cover Database, and U.S. Census Bureau's American Community Survey*[37]

When comparing the overall social vulnerability scores (fig. 8) to the redlining map (see fig. 9) the hazardous areas are closely related to the medium-high heat vulnerability (fig. 7), this shows the impact that structural racism continues to have on Richmond's most vulnerable populations today.

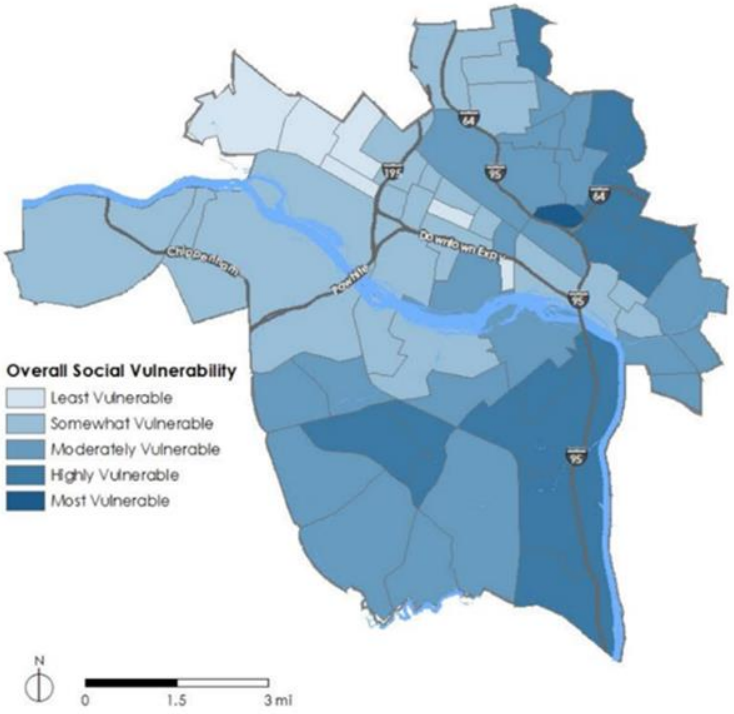

FIGURE 8. Richmond's Social Vulnerability Map Sources: U.S. Census Bureau, 2012- 2016 ACS, and Centers for Disease Control and Prevention (CDC), 2015

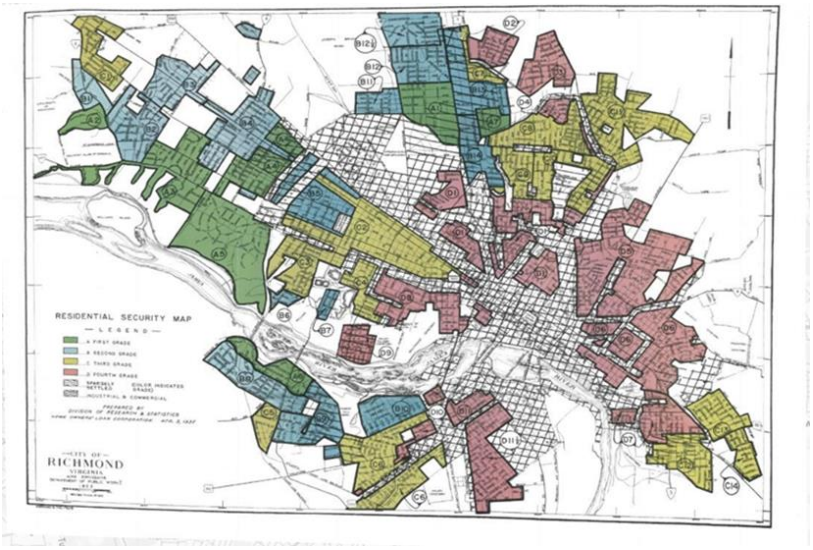

FIGURE 9. Richmond's Redlining Map Source: City of Richmond, Department of Public Works, 1923; Home Owners' Loan Corporation, Apr. 3. 1937[38]

Greenhouse Gases (GHG)

Greenhouse gases (GHG) are gases that trap heat in the atmosphere (see fig. 10). Carbon Dioxide (CO_2) comes from burning fossil fuels (coal, natural gas, and oil), solid waste, trees and other biological materials, and includes the results of chemical reactions (i.e. manufacturing of cement). Methane is emitted during the production and transport of coal, natural gas, and oil; and its emissions result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills. Nitrous Oxide (NO_2) is emitted during agricultural and industrial activities, combustion of fossil fuels and solid waste, as well as the treatment of wastewater. Fluorinated gases, such as Hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride, are synthetic, powerful greenhouse gases that are emitted from various industrial processes. These gases typically are emitted in smaller quantities but they are potent greenhouse gases.

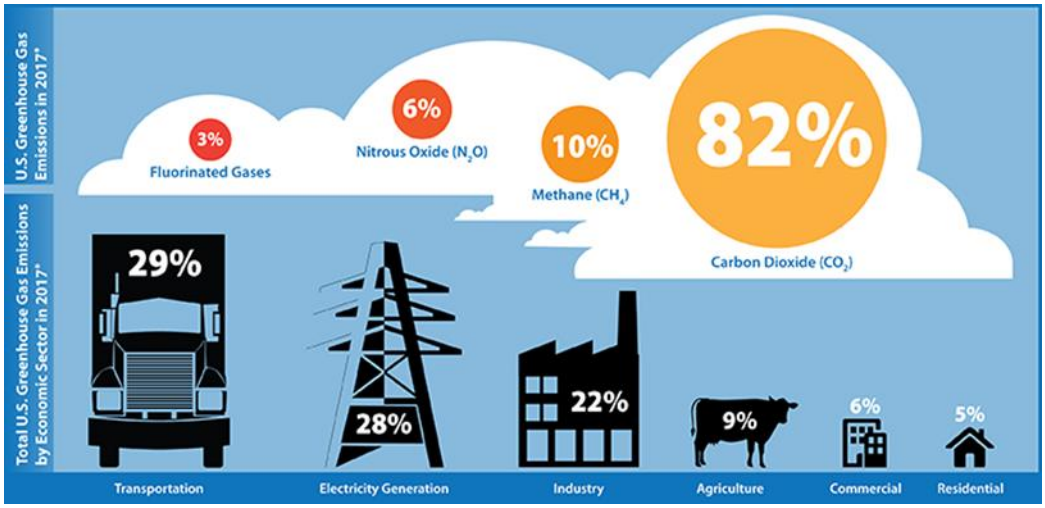

FIGURE 10. U.S. Greenhouse Gas Inventory Source: ***Source: U.S. Environmental Protection Agency, emissions estimates are from Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2017.***

Existing Knowledge

To provide context for this plan, it is important to understand that a key concept within the field of sustainability is the tension present between its three pillars of equity, economy, and environment. While it is crucial to look at strategies previously used to prioritize equity within sustainability, it is also important to realize that this is a new way of thinking about the climate action planning process. As a consensus equity is usually overlooked entirely or placed second or third to more common practices in sustainability that center on economy or environment.[39][40][41] First, relevant literature is reviewed to find the best practices or most common approaches to prioritize equity within sustainability initiatives. Then, there is an analysis of theoretical frameworks that center equity to determine the best way to approach this plan's purpose. Lastly, a review of inclusive community engagement processes is used to gleam insights into the current best practices of reaching out to those who have been historically underrepresented in planning processes.

In the context of Richmond, this primarily refers to African Americans and Hispanics or Latinos who historically have not been given an active voice in the planning process. This has created a distrust between these communities of color and city government. This is a necessary hurdle to overcome to move in the desired direction where these marginalized voices are not just placated but are given value and priority within the climate action planning process. Fisher & Kalbaugh (2011) examined ways to enhance participation in clinical trials.[42] They analyzed the extensive literature that addresses the low participation of minorities, especially African Americans.[43] Fisher & Kalbaugh (2011) suggest that the participation of minorities in clinical trials should be framed in two ways.[44] First, individuals of diverse ethnic and racial backgrounds must have the opportunity to participate in clinical trials. They emphasize that this is essential to fairness, and diversifying participants in clinical trials. In turn, this improves science and creates the potential to reduce health disparities in medicine. Second, they stress that the medical research must not unduly burden or exploit particular groups in society.[45] Participation in healthcare trials is mentioned because the same groups- African Americans and Hispanics or Latinos- were also left out of planning processes in general.

Furthermore, Fainstein (2010) explains the importance of the choice of how you present the data as "To the extent that experts present analyses not just of benefits/cost ratios but of who gets the benefits and who bears the costs, can shift

the debate towards a concern with equity." (p. 181).[46] Data storytelling gives a personal touch to the data where you can imagine what if that is me, how would I feel if I was disproportionately impacted by something that the data shows that someone else caused. Maybe the person that caused this didn't realize the impact of their actions. Possibly, if they were made aware of the unintended consequences of their wrongs, perhaps they would like to contribute to the process that would help the other group improve their quality of life.

The root causes of social equity require an examination of historical and social evidence that underlie contemporary inequities; because social inequities are not randomly distributed: they follow predictable patterns based on historical context, and these legacies continue to be reinforced.[47] The most useful definitions of equity within the context of this plan talk about the distribution of resources (Fainstein, 2010, Young, 2010, and Brand, 2015).[48][49][50] First, Fainstein considers) equity from a public policy perspective where the distribution of resources does not benefit those who are already more fortunate.[51] It is important to remember that where you are born has a great impact on your quality of life and that opportunities are not distributed equally among race or social class. [52] Second, Young recognizes the importance of individual identity and capacity to ensure equity that is especially relevant within the context of food deserts, an area with limited access to affordable and nutritious food.[53] This shows the importance of culture in the distribution of resources including geographic imbalances of health inequity.[54][55][56] Third, Brand suggests equity should be reframed so that resources are redistributed using more effective strategies that recognize that collective and historic inequities in urban development need to build a stronger foundation for marginalized communities.[57] Since sustainability development has many meanings based on different perspectives and complexities, the conflicts between its equity, economic and environmental elements are only further exacerbated.[58][59][60][61]

Sustainability

To limit confusion about how to center equity within sustainability one most clearly define what is meant by sustainability within the context of the plan. To provide clarity let us look at the two most common ways sustainability is defined. These are from the World Commission on Environment and Development (WCED) and the International Union for Conservation of Nature (IUCN). WCED defines sustainability as "development that meets the needs of the present without compromising the ability of future

generations to meet their own needs"[62] or whereas IUCN defines sustainability as "to improve the quality of life while living within the carrying capacity of ecosystems"[63] Neither of these definitions mentions justice or equity. For the purposes of this plan, sustainability will be defined as "to ensure a better quality of life for all and that this should be done in a just and equitable manner, whilst living within the limits of supporting ecosystems"[64][65] and "the city as a location of conflict over the distribution of resources, services, and opportunities. The competition is within the city itself, among different social groups"[66]

Equity Planning

An area of planning that is of interest to achieving to center equity with sustainability is equity planning. Equity planning is a framework where urban planners mobilize marginalized communities, for the purpose of advancing and implementing policies and programs that redistribute resources from the elite to the poor and working classes.[67] For sustainable development to be socially just it must spatially balance economic opportunity, locate jobs near housing, and evenly distribute the property-tax funding of schools.[68] When faced with limited resources equity planners must decide to assist disadvantaged clients by scrutinizing the costs and benefits of each proposal according to social equity principles.[69] To pursue equity objectives planners must focus on the decision-making process by gathering and analyzing the hard and relevant information to determine what outcomes they wish to achieve.[70] Equity planning empowers planners "to analyze the potential outcomes of proposed urban development policies, to question who benefits from these policies, and to advocate for decisions that expand choice and opportunity".[71]

Theoretical Frameworks

Targeted Universalism and the Just City are theoretical frameworks that can be used to center equity within sustainability. Targeted universalism is outcome-oriented, and the processes are directed in service of the explicit, universal goal.[72] It rejects a single even a limited number of strategies towards the universal goal; and avoids the one-size-fits-all remedy to achieve policy goals, since they fail to consider that different communities and populations have different needs. Its implementation strategies are tailored to address both the structures that impede different groups and populations, and it affirmatively develop structures that promote the desired outcomes for different populations. In targeted universalism, the strategies are targeted, but the goal is always universal.

The just city includes the three criteria of democracy, diversity, and equity.[73] Democracy is the sense that people have control over their living environments. Using just city principles for the purpose of this plan, diversity is defined as an intentional state of mixed people, institutions, and cultural norms. It allows diversity of various kinds, while its ambitions create diversity often result in nominally unjust outcomes. For example, when poor residents are forced to relocate to remote and more expensive homes for the purpose of social mixing.[74]

Community Engagement

Community engagement is a strategy that a planner, city official, etc. use to get the public's input on an initiative. It is an attempt to learn what the community desires to improve their quality of life. Ideally its purpose is to take stock of its communities' current assets such as their local knowledge, social networks, and collective or individual skills, in the pursuit of a common vision. However, historically it has been based on who has the power and privilege. Where those with the power are given the privilege to make the decisions.

In the past, those groups without the power had to rely on the researchers, policymakers, corporations, planners, and city officials — or in most cases the white upper classes — to act in their best interests. They may have been consulted in the early stages of the planning process but the outcome of their initiative did not represent their intended goal. This caused them to lose hope and trust in those with the decision-making power. It is the responsibility of those with the power to give some up and share the power with those traditionally left out of the process. Meaning now they act together to co-design and implement initiatives to meet their shared goals.

There is a growing area about community engagement directly related to climate change that addresses planning with scenarios and visualization.[75] Also, disaster planning that develops the visions and designs resiliency initiatives.[76] Furthermore how engagement needs to provide education cause with knowledge the community may change their perceptions of climate change adaptation.[77] Its importance and how it directly impacts them and the existence of climate inequities.

Research Questions

The overarching research questions in this plan are what strategies are used most often to center social equity within climate action planning processes? How effective was each city's strategies in accomplishing its goal of centering social equity within its climate action planning processes? What strategies did the cities that scored the highest use (top five overall scores) that set them apart (or were innovative) when compared to those that scored in the bottom five? What were the specific steps in the planning process that they used to reach minority populations within their city? How did they encourage them to engage in the process? Did they create a working group or a roundtable and invite them to participate on it? Did they have an active voice in every stage of the planning process?

- What strategies did the city use to center social equity within its planning process? How did they balance power and ensure equity at every step? Did they conduct equity impact assessments before finalizing decisions? What data did they use to track their progress of centering equity within their planning process? Did they address the existing power dynamics that limit effective collaboration?

- What networks did the government build to reach underrepresented communities? Was there a comprehensive strategy for closing equity gaps? Were their participants representative of each major community that makes up their city's cultural and ethnic diversity? Do they know the strengths and assets of their community leaders? What strategies did they use to build trust and relationships with minority populations?

- Did the local government evaluate its planning process throughout to make sure it centered on social equity? How did they measure their success? With whom did they share the lessons that they learned? Was there a cross-departmental core team dedicated to cultivating the necessary policy and systems changes needed to close equity gaps? Did their staff have racial equity training?

Methodology and Approach

This plan's methodology and approach is based on the concept of collaborative governance. Collaborative governance is defined by five main criteria.[78] First, the community and the local government co-define the problems to achieve their goals. Second, the community and local government co-develop solutions to the problems the co-defined. Thirdly, the process includes a shared analysis of the root causes of the problems. Fourth, the process results from an increase capacity for implementation of the solutions to the problems they co-defined. Lastly, the process must be grounded in community strengths and assets.

For each of the principles of collaborative governance described in Table. 1, there were a set of overarching questions from which this plan was framed (criteria shown in Appendix A). It guided the approach for the content analysis of the ten cities' climate action, sustainability, or resiliency plans. These questions were used to target or guide the way to each section in which the specific details were included. They acted as bookmarks or benchmarks within the plan review, to say pay attention to the specifics in the section regarding the planning process and its integration of equity. Based on a review of the relevant literature this author determined that the collaborative governance approach would be the most effective strategy to centering social equity within climate action planning processes.

Table 1. Principles and practices of collaborative governance

Principle	Definition and Practices
commitment to collaborative governance	clear commitment among all parties to both build capacity for collaboration and break down existing barriers to equitable participation
purpose clarity	significant steps forward to closing equity gaps; each sector is clear on their driving motivations and unique roles are in relation to in the collaborative initiative; take time to align around a shared purpose
community organizing & power building	for effective participation by residents; allows for a critical lens and political stance on core issues that affect their neighbors; can effectively represent the interest of their communities
equitable decision-making practice	clear and transparent decision-making processes in which the community can participate to ensure decisions; so, no additional harm is caused; advance solutions that previous harm caused; cultivate accountability between the community and government; limit the consequences of decisions that exclude community voice and power
community resourcing	meets the needs and addresses the range of complex issues affecting the community; understands community-based organizations rooted in frontline communities tend to suffer due to a lack of resources; close equity gaps by using a community resourcing strategy to ensure equitable participation by impacted communities
city capacity & racial equity training	focus on equitable hiring practices to build the internal capacity needed to partner with communities; need to hire staff with an orientation towards equity and the skills to effectively collaborate across departments and with community-based organizations; local government must engage in racial equity training and ongoing internal practices to cultivate the core competencies of collaborative governance

city resourcing	make sure that local government allocates the resources necessary to ensure the rhetoric of racial equity and community partnerships is backed up with concrete solutions; prevent missteps that could damage local democracy by reinforcing public disillusionment with government, stifle participation, and thus political will to advance solutions; communities must demand resources for civic engagement and for solutions to racial equity and environmental injustice; champions within local government can help by advocating for equitable budgeting practices
power & influence of community groups	municipal community-centered committees to assert more political influence of community groups around the issues of racial equity and environmental sustainability; build political influence of the committee so it has a political voice and power rooted in the frontline communities; to advance solutions that actually serve the communities they target and to avoid the unintended consequences of policies that are meant to solve community challenges
trust & relationship building	strengthening our local democracies means healing the divide between government and community; persistent legacies of exclusion cause frontline communities to distrust the government; politics and power dynamics with the local government can serve as a barrier to forging genuine relationships with community-based organizations; types of communication that work to overcome this hurdle so that the trusted relationship can translate ideas into action and lead to significant change; a direct relationship between government officials & frontline communities may help to ensure policies and plans adopted by government reflect the needs and assets of the community most impacted by them
balance power & ensure equity at every step	collaboration across sectors is an opportunity to engage in equitable practices that support participation by communities that have been regularly excluded from decision-making tables, either intentionally or by default; those with more positional power and privilege may be unaware of inequitable practices they may be perpetuating, and therefore it is important for community groups to assert the practices they need to support equitable participation

Source: An Urban Sustainability Directors Network Innovation Fund Project conducted by Facilitating Power, Movement Strategy Center, and the National Association of Climate Resilience Planners. From Community Engagement to Ownership Tools for the Field with Case Studies of Four Municipal Community-Driven Environmental & Racial Equity Committees. Retrieved from https://www.usdn.org/uploads/cms/documents/community_engagement_to_ownership_-_tools_and_case_studies_final.pdf

City selection

The cities reviewed for the content analysis were chosen based on their demographics.[79] Like Richmond, Virginia- Baltimore, Maryland; Detroit, Michigan; Washington, D.C., and Cleveland, Ohio have a population of over 45% of blacks or African Americans. This is important because racial equity is of great concern in the context of centering equity within the planning processes of the city of Richmond. This includes changing the structural systems such as redlining that allowed these inequitable outcomes to occur.

Boston, Massachusetts; Chicago, Illinois; and Providence, Rhode Island were selected because they have a large Hispanic or Latino population, at 19.7%, 29% and 43% respectively. These two cities were chosen in hopes of gleaming insights or specific strategies to reaching the 6.5% of Hispanic or Latinos (of any race) in the City of Richmond. St. Paul, Minnesota was selected in hopes of making the planning process more inclusive to Asians (2.1% in Richmond) since Asians are 18.4% of St. Paul's population. In St. Paul, African

American's are 16% and Hispanic or Latinos are 9.6% of the total population.

Philadelphia, Pennsylvania; and Milwaukee, Wisconsin have a large African American population at nearly 40% each, and their Hispanic or Latino population is at 14.5% and 18.8% respectively. Despite having a Median Household Income above the National Average of $57, 652 in 2017, Washington, D.C. and Boston, Massachusetts were still selected because their percentages below poverty were still 17.4% and 20.5% respectively. It is assumed that these two cities must have concentrated pockets of poverty, similar to that of the East End in Richmond, due to their rich to poor income gaps.

Table 2. Planning documents reviewed during content analysis.

City	Year	Name
Washington, District of Columbia	2019	Sustainable DC 2.0
Baltimore, Maryland	2019	2019 Baltimore Sustainability Plan
Philadelphia, Pennsylvania	2019	Beat the Heat: Hunting Park
Providence, Rhode Island	2019	Providence's Climate Justice Plan
Boston, Massachusetts	2019	2019 Climate Action Plan Update
Cleveland, Ohio	2018	Cleveland Climate Action Plan 2018 Update
Detroit, Michigan	2019	Detroit Sustainability Action Agenda
Chicago, Illinois	2019	Resilient Chicago
Milwaukee, Wisconsin	2019	MMSD 2019 Resilience Plan
St. Paul, Minnesota-	2019	Saint Paul Climate Action and Resilience Plan

Content Analysis

The frame for this content analysis (see Appendix A.) is adopted from the Learning & Evaluation Tool: Assessing the Process from Community Engagement to Ownership that was developed by Rosa González with editing support from Victoria Benson (p. 85-91).[80] The research questions concerning decision-making power and reaching underrepresented communities will be answered by conduction of a content analysis of each cities' resiliency, climate action or sustainability plan (Table 2). The goal of this content analysis is to determine which of the elements (or strategies) is used most frequently by the ten cities. It is assumed that if a majority of the ten cities (meaning 6 or more) use the strategy than it must be a best practice to center social equity within climate action planning. Therefore, it should be reflected in the goals, objectives, and actions recommended later on in this plan.

Each city's planning process was analyzed for a certain element within three themes- Centering Equity, Networks Building, and Accountable Governance (more details later in Tables 3-5). Then tables were created for each of these three themes with the ten cites listed in columns across the top, and the elements were divided into categories listed in each row along the side. During the content analysis, when one of the elements was present, that city was given a score of zero, one or two. These scores were based on whether the element was present in the plan, the quality of detail or description given to the element, and whether a strategy given to accomplish this element. If the element was not present, the city automatically scored a zero for that element. If it was present but only mentioned briefly without specific details or lacked a strategy to accomplish it then the city received a score of one. In order to score a two, the element must have a strategy that is explained using graphics such as pictures, figures and tables to show relevant information in a way that clearly explained the information, data, or knowledge that is formatted with language that is generally understandable and displayed information in a clear and concise manner. While looking specifically at social equity indicators present within each city's community engagement process: "scores of 2" represent defer to the community, "scores of 1" represent collaborate with the community, and "scores of 0" represents to involve the community.[81] This meant that if the city scored a zero if the social equity indicator was not present in the plan, or if vulnerable populations were involved in the planning process but their input was not implemented into the recommendations or implementation portion of the plan. Also, they didn't seem to evaluate the success of reaching the vulnerable population within their planning process. There was no mention of the demographics of the participants of the planning process or methods, approaches, strategies that they used to reach them during each step of the planning process. They may have mentioned their inclusion in the initial stages of the planning process but do not show how the information they gathered from their consultation was included in the final planning document. A score of one meant the city showed how their community engagement process was representative of their city's demographics with statistics of number of participants broken down by race or income, and how this was a representation of the overall statistics of the city. However, it may not have made an effort to do a second round of engagement if these statistics were not represented of the vulnerable populations at a community level. Furthermore, this lack of consideration of the demographics of

participants showed that it only allowed the vulnerable populations to collaborate with local government without giving them a voice in the direction or strategies used to accomplish climate action goals. If the city received a two in community engagement then they had a diverse and representative group of participants that were given an active voice in determining the strategies used to accomplish the plans goals. This usually meant they were part of a climate action working group or a round table.

Once the content analysis was completed each city's overall scores were calculated. The score was calculated by taking their actual score and dividing it by their possible score. For example, *Community Organizing and Power Building* had eight elements, so the highest score for each of the elements was 2, so if a city scored a two on every element, they received a 100% and if they score a one on every element, they received a 50%. However, in many cases the results were not that simple, since a city would score two on some elements, score one on others, and occasionally received a zero since the element wasn't present within their plan. So, the total points were added up and then divided by the total points possible. For instance, in *Community Organizing and Power Building*, Providence had three elements that score a two (6 points) and five elements that scored a one (5 points), so 6 plus 5 equals 11. Then 11 divided by 16 (2 times 8 equals total possible points) gave Providence a 0.6875, which multiplied by 100 and rounded to two decimal places equals a 69.

Contextual Analysis

A contextual analysis determined which of the strategies implemented most frequently by the ten cities best apply to the context of Richmond. To evaluate this by it was determined which criteria were present in at least six cities during the content analysis. It is assumed that since these strategies were used most frequently that they must be best practices for ensuring social equity in climate action planning processes. However, just because a strategy is a best practice does not mean that it should automatically be applied to the City of Richmond's climate action planning process. It must be determined whether Richmond has the appropriate resources, capacity, or infrastructure to implement the strategy effectively to achieve desired outcomes. For example, Washington, D.C.'s approach may not be applicable to Richmond. They may have departments or monetary resources that Richmond does not presently have the capacity for. Thus, it is recommended that Richmond consider "Approach B" when trying the achieve the criteria "commitment to collaborative governance model".

Since the City of Richmond, is co-designing its definition of equity, its climate action initiatives, and their implementation by shifting the power to those directly vulnerable to climate impacts — its frontline communities. If a best practice does not fit within their desired goals, it is not automatic that it should be applied. The frontline communities may decide that this best practice is not the best way to approach climate adaptation, mitigation, or resiliency within their specific community. They have local knowledge that must be valued in order to center social equity within the City of Richmond's climate action planning process. The following are key questions need to be asked to determine if a best practice is appropriate within Richmond's context:

- Is there a shift in decision-making power or reaching underrepresented communities present within the city's planning process?
- What approach does each city use to integrate each of the ten principles while reviewing each plan?
- Which strategies are the trend to accomplish integrating each principle?
- Is the strategy doable within the context of Richmond?
- What are the circumstances in which it fits within the context of Richmond?
- How do the best practices for each of ten principles of collaborative governance fit within Richmond's context?

Key Findings

Determining the top five cities in the overall scores is necessary to accomplish this plan's purpose. It is assumed that the cities whose overall scores rank in the bottom five do not have effective strategies, or their strategies or steps in the planning process were not detailed enough within their plan to be replicated by the Office of Sustainability correctly or adequately. First, it was determined which cities are the strongest and which cities are the weakest. Second, it was determined which of the three themes (centering equity, networks building, or accountable governance) had its corresponding elements present most often within the ten plans. Third, it is important to note the range of the cities that scored in the middle because it provides a better understanding of how varied the data was and it helps to recognize outliers. Since the results in this plan were calculated as means it is important to recognize that outliers may skew the results. Table 3 shows the total overall scores and rankings by criteria and theme. For equity insights from each city's plan look at Appendix D.

As you can see Providence scored relatively high throughout the criteria, in contrast St. Paul scored relatively low throughout with many of the criteria lacking from its plan. Out of a possible 100, the total equity scores of the ten plans range from 48 to 84, with St. Paul being the weakest and Providence being the strongest. For *accountable governance*, the overall scores were noticeably lower than those of *networks building* and *centering equity*. With centering equity criteria being present most frequently and with the most detail within each plan. For *networks building,* out a possible 100 the scores ranged from 45 to 80. The rest of the ten cities' scores ranged from 64 to 78 overall. For *centering equity*, the scores ranged from 48 to 98. The rest of the scores ranged from 61 to 78. The scores for *accountable governance* ranged from 45 to 80. The other cities scores from 49 to 68. Providence was ranked number one for each of the three themes, and St. Paul scored last in *networks building* and *centering equity,* while Baltimore scored last in *accountable governance.*

Table 3. Total overall scores and ranking by criteria and theme

Total Overall Scores and Rankings by Criteria and Theme	Baltimore	Boston	Chicago	Cleveland	D.C.	Detroit	Milwaukee	Philadelphia	Providence	St. Paul
community organizing & power building	75%	69%	81%	75%	81%	88%	69%	75%	69%	38%
trust & relationship building	72%	67%	72%	72%	78%	72%	67%	78%	89%	67%
power & influence community groups	50%	56%	56%	69%	75%	69%	63%	75%	81%	31%
networks building	66%	64%	70%	72%	78%	76%	66%	76%	80%	45%
networks building ranking	7	9	6	5	2	3	7	3	1	10
power balance & ensure equity	88%	75%	75%	88%	88%	88%	75%	88%	100%	50%
community resources total	36%	50%	57%	36%	50%	36%	43%	50%	79%	29%
equitable-decision making capacity total	50%	50%	71%	64%	86%	79%	71%	71%	93%	43%
purpose clarity total	85%	70%	85%	75%	90%	80%	70%	80%	95%	70%
centering equity overall	65%	61%	72%	66%	78%	70%	65%	72%	92%	48%
centering equity ranking	7	9	3	6	2	5	7	3	1	10
commitment to collaborative governance total	75%	88%	88%	88%	88%	88%	75%	75%	88%	75%
city capacity & racial equity training total	60%	60%	60%	60%	80%	80%	60%	60%	90%	40%
city resources total	0%	50%	13%	0%	38%	25%	13%	25%	63%	38%
accountable governance total	45%	66%	53%	49%	68%	64%	49%	53%	80%	51%
accountable governance rankings	10	3	5	8	2	4	8	5	1	7
overall total scores	58%	64%	65%	62%	75%	70%	60%	67%	84%	48%
overall total ranking	9	6	5	7	2	3	8	4	1	10

Centering Equity

Table 4 shows that the first theme centering equity is composed of four elements — balance power & ensure equity, community resourcing, equitable decision-making capacity, and purpose clarity. The overall scores for the theme of *centering equity* ranged from 48 to 92 — St. Paul and Providence, respectively.

Balance Power & Ensure Equity

The principle of balance power and ensure equity as represents a shift to bring the communities that have been traditionally left out of the process where practices are added to support equitable participation. This principle is very important to centering equity in the planning process as shown by the overall scores that were relatively strong. All four elements were present across all cities. Nine cities scored from 75 to 100. To accomplish this task there were two essential practices. First, is to address existing power dynamics that limit effective collaboration; and second, the facilitation and agenda setting conducted by committee members.

Community Resourcing

Community resourcing requires the involvement of community-based organizations rooted in the communities most impacted by structural inequities and environmental injustice; to have the time and resources they need to meet the needs and address the complex issues facing their community. Community resourcing was a low priority of the ten city plans reviewed. The overall scores were relatively low, with only two of the elements being present across all ten cities resulting in overall scores from 29 to 79 — St. Paul and Providence, respectively. Only two criteria in community resources that were included across all plans. First, was to focus its data collection on storytelling. Second, was to shift contracting & procurement practices to increasing hire community-based organizations. Nine cities worked to ensure city grant guidelines are relevant & applicable to leadership with impacted communities; and to get line items in the city budgets to resource community-driven planning work.

Equitable-Decision Making Capacity

Equitable-decision making capacity looks at what infrastructure of capacity needs to be in place to ensure equity in the outcome of the planning process. The overall scores were mid-level compared to the other elements with scores ranging from 43 to 93 — St. Paul and Providence, respectively. Six of the seven elements in *equitable-decision making capacity* were present across all ten cities.

Purpose Clarity

Purpose clarity meant did the city have a clear vision at the start of the process to obtain their goal of centering equity. For purpose clarity the scores were relatively high with the scores ranging from 70 to 95 — with three cities Boston, Milwaukee, and St. Paul scoring 70 and one city Providence scoring a 95. These are the criteria that may not more details in a plan in an effort to be transparent. Another areas, that were prioritized were to reflect & evolve as the conditions change; having support from the mayor for equity-centered climate action planning; start by identifying a shared purpose at the intersection of each of the stakeholder's goals; and uses data to track progress of centering equity in the planning process.

Table 4. Centering Equity

balance power & ensure equity	community resourcing	equitable decision-making capacity	purpose clarity
addressing existing power dynamics that limit effective collaboration agenda setting conducted by committee members third-party facilitators trusted by community-based organizations allow time & space for consensus building	equity stipends to leaders of community initiatives meet basic needs such as food, translation, child care, and timing of the meetings ensure city grant guidelines are relevant to leaders within the impacted communities data collection focused on storytelling line items in city budgets to resource community- driven planning work public assets are available at little or no cost to the community shift contracting & procurement practices to increasingly hire community-based organizations	transparent about how decisions are made partner with the community to define problems partner with the community to design solutions before developing policy time for collaborative design collaborate with the community to set equity goals conduct equity impact assessments before finalizing decisions ensure all parties impacted by the decisions are informed of the decision and impacts	vision statement or core motivation unique role in achieving equity shared purpose at the intersection of each stakeholder's goals role in advancing racial & environmental equity solutions reflect & evolve as conditions change designs initiatives to prioritize equity mayor supports equity-centered climate action planning inclusive engagement of frontline communities uses data to track the progress of centering equity into the planning process monitors equity through each phase of the process

Networks Building

The second theme of *networks building* is composed three elements — *Community organizing & Power Building, Trust & Relationship Building, and Power & Influence of Community Groups with City to Achieve Tangible (table 5)*. For networks building the overall scores ranged from 44 to 77 — St. Paul and Providence, respectively.

Community Organizing & Power Building

Community organizing & power building involves giving the necessary resources to the community so that they can build the capacity necessary to design and implement their own initiatives. Six of the eight elements were present across all ten cities but most of the scores within this element were one, this led to relatively low scores within this element with scores ranging from 33 to 78 — St. Paul and Detroit, respectively. All of the ten cities except St. Paul scored a two for the criteria of invest in community organizing capacity, and comprehensive strategy for closing equity gaps. Seven of the ten cities scored a two for the element cultivate philanthropic partners the other three cities — Boston, Milwaukee, and St. Paul — score a one for this element.

Trust & Relationship Building

Trust & relationship building is important to reach the frontline communities and it is important to recognize that this a process and the government must be transparent and a committed to the promises they make in order to earn the community's trust and to strengthen their bond. For trust & relationship building, the overall scores were relatively high ranging from 67 for three cities — Baltimore, Chicago, and St. Paul — to 72 for four cities —Baltimore, Chicago, Cleveland, Detroit — to 78 for two cities — DC and Philadelphia — and Providence with the highest score at 89. Key practices to build trust and relationship were be transparent as possible when communicating opportunities as well as barriers to achieve goals; seek to find win-win solutions with community groups ; focus on "we" to chip away at the divide between the community & government; and understand the social justice landscape within their city.

Power & Influence of Community Groups

Power & influence of community groups to achieve tangible solutions is necessary to achieving equity because the community groups act as connectors to the frontline communities. They facilitate engagement and information sharing with the community. However, this principle was not a priority across the ten cities. These scores were relatively low and had a wide range with St. Paul scoring 31 and Providence scoring 81. Three of the eight elements — conducting a preliminary power mapping, identify leverage points for systems change, and

power mapping with community partners to inform policy & systems change strategies — were not present across all of the ten cities. For conduct a preliminary a preliminary power mapping only three cities scored a one — Milwaukee, Philadelphia, Providence — the seven other cities scored a zero for this element. For identify leverage points for systems change and power mapping with community partners to inform policy & systems change strategies — both Boston and St. Paul scored a zero — the eight other cities scored a one for these two elements, the only exception is Providence that scored a two on identify leverage points for systems change.

Table 5. Networks Building

Community Organizing & Power Building	Trust & Relationship Building	Power & Influence of Community Groups with City to Achieve Tangible Solutions
cultivate philanthropic partners invest in community organizing capacity comprehensive strategy for closing equity gaps build communities with representation from each municipal district representation from each major community that makes up the city's cultural & ethnic diversity support community organizing advocacy & healthy conflict coming from community-based organizing partners establish lines of communication with community-based organizations to avoid being caught off guard by protests leverage protests, mobilizations, and other elements of outside organizing to encourage internal policy and systems change	understand the social justice landscape within their city know the strengths & assets the community partners can bring to the initiatives focus on "we" to chip away at the divide between community & government transparent as possible when communicating opportunities as well as barriers to achieving goals avoid using empty rhetoric keep their word and communicate clearly & openly seek to find win-win solutions with community groups take full responsibility for mistakes & missteps that negatively affect community leaders work to rectify past harm in ways that are relevant & meaningful to those harmed	conduct a preliminary power mapping support community leaders in navigating current systems identify leverage points for systems change power mapping with community partners to inform policy & systems change strategies track progress towards meeting equity goals communicate progress (as well as barriers) regularly across departments and to senior management cultivate multiple opportunities for community partners to meet with key decision-makers identify opportunities to breakdown existing reluctance to share information between & within government agencies & departments

Accountable Governance

The third theme of *accountable governance* is composed three elements — commitment to collaborative governance, city capacity & racial equity training, and city resourcing (table 6).

Commitment to Collaborative Governance

For commitment to collaborative governance, (see Table 1) all ten cities had all four elements present within their plan, although some had a stronger presence than others. Also, in commitment to collaborative governance, out of a possible 100 points cities scores were either 75 or 88. For *evaluator with a community lens*, all of the cities scored a one out of a possible two points. For *facilitate development learning and evaluation* and *integrate feedback into practice* all but one of the cities scored a two the highest possible score. In *facilitate development learning* the city that scored a one was St. Paul and in *integrate feedback into practice the city* that score a one was Milwaukee. For *document & share lessons via government networks*, all but two cities scored a two with Baltimore and Philadelphia scoring a one.

City Capacity & Racial Equity Training

City capacity & racial equity training includes the resources, connections between department and the equity training required to center equity within initiatives. Only three of the five elements were present across all ten cities. For *leaders with lived experience* five cities — D.C, Detroit, Philadelphia, Providence, and Baltimore — scored a two while the other four — Chicago, Cleveland, Milwaukee, and St. Paul — scored a one. There seemed to be a connection between cities with leaders with lived experience and those having a *cross-department core team dedicated to closing equity gaps*. Milwaukee, Boston, D.C., Detroit, and Providence thought about equity in terms of closing gaps throughout all their cities departments. There was also a correlation between those cities that *support all staff in* building authentic relationships with the impacted communities and those that actively communicate & replicate racial equity practices. Six of the ten cities scored a two in both elements — Boston, Chicago, Cleveland, D. C., Detroit, and Providence.

City Resourcing

For city resourcing, none of the four elements was present across all ten cities. This may not be a current priority in equity planning in terms of resiliency as of yet, or it may not be something that is commonly included in plans— since it is more of an internal process because it is hiring and budgeting. However— maybe this should change— maybe the city should be open and honest about where their money is spent, and let their communities decide how it may be spent most effectively. For *advocate for more inclusive budgeting practices*, six of the ten cities had this element present in their plan. Two of the six cities scored a one for this element —Chicago, Milwaukee — and four of the six cities scored a two — Boston, D.C., Providence, and St. Paul. For *reflect the ethnic diversity of the community it serves*, only four of the ten cities scored a one — Detroit, Philadelphia, Providence, and St. Paul. For *hiring goals*, the only city to score any points was Providence and they only scored a one. For *phased resources*, five of the ten cities had this element mentioned in their plan — D.C., Detroit, Philadelphia, Providence (score a one) and Boston (scored a two).

Table 6. Accountable Governance

Commitment to Collaborative Governance	City Capacity & Racial Equity Training	City Resourcing
evaluator with a community ownership lens facilitate development learning & evaluation throughout the process integrate feedback into practice document & share lessons learned via government networks to promote the model	leaders with lived experience conducive to collaborating effectively with impacted communities cross-departmental core team dedicated to cultivating the necessary policy and systems changes needed to close equity gaps minority staff is not tokenized of overburdened support all staff, including the white staff, in building authentic relationships with the impacted communities actively communicate about & seek to replicate racial equity practices across departments and management levels	reflect the ethnic diversity of the community it serves phased resources to ensure this hiring goals to ensure this advocate for changes in how budgets are developed to be more inclusive & less isolated from others

Summary of Results

Table 7 shows the overall equity scores by theme — centering equity, networks building, and accountable governance— for each of the ten cities. The general trend is that the ten cities scored strongest within the centering equity theme of collaborative governance. The theme of *networks building* —ranked first for the city of Cleveland and Philadelphia— with centering equity being their second rank theme. The theme of *accountable governance* despite ranking last for all other eight cities ranked first overall for Boston and St. Paul. The purpose of these results is to show which cities did best at which element and which criteria were present in at least six plans, because this show a trend. It is assumed if a majority of cities implement these criteria than it must be essential to centering equity within climate action planning. Although, Boston and St. Paul did not score well over all, if a city wants to implement principle to hold their government accountable, they should look at these two cities as examples. These findings represent the areas within collaborative governance where these ten cities excelled at implementing strategies to enhance the equity within their planning initiatives.

Table 7. Equity Scores by Theme of Collaborative Governance

Equity Scores by Theme for each city	Baltimore	Boston	Chicago	Cleveland	D.C.	Detroit	Milwaukee	Philadelphia	Providence	St. Paul
Centering Equity	65	61	72	66	78	70	65	72	92	48
Networks Building	63	61	67	69	75	69	63	75	81	31
Accountable Governance	45	66	53	49	68	64	49	53	80	51

Equity spotlights

This section includes case studies for the cities that ranked in the top five during the content analysis, for the purpose of exploring the specific details within the plan that were critical to centering equity. The top five ranked plans after the content analysis were as follows: 1.) Providence, Rhode Island, 2.) Washington, District of Columbia, 3.) Detroit, Michigan, 4.) Philadelphia, Pennsylvania, and 5.) Chicago, Illinois. These were determined to have the most innovative approaches to centering social equity in the climate action planning process. These case studies look at their how they define equity, the steps in their planning process, and strategies to inclusive community engagement. As stated earlier, the city of Richmond's definition of equity with be created by its community through those who participate in its equity-centered climate action planning process.

Providence's Climate Justice Plan

Providence was very good at clearly defining the terms in their plan, and clearly stating their vision and strategies. Providence defines "racial equity" as when a person's outcome is not predicted by the color of their skin. Its framework is "just transition" that includes a range of social interventions needed to secure workers' jobs and livelihoods and shift to sustainable production. Providence's vision is "Buen Vivir" which means living well without living better at the expense of others. This includes the fundamental human right to clean, healthy and adequate air, water, land, food, education, transportation, safety, and housing. It also creates just relationships with each other and with the natural world, of which we are a part. Providence defines "frontline communities of color" as the communities of color most impacted by the crises of ecology, economy and democracy. This includes the Indigenous, African-American, Black, Latino and Southeast Asian communities. There is particular emphasis on people of color who are refugees and immigrants, people with records, speakers of languages other than English, and LGBTQ. Providence's strategy to reach frontline communities was collaborative governance. "Collaborative governance" in climate justice asks that government, institutions and corporations be accountable for their role in contributing to and addressing the climate challenge. In order to create long-term sustainability and equity in Providence, structural and systems change is required. Providence uses a form of governance called "deep democracy" that includes the direct and ongoing participation of community members in civic institutions and

organizations, including equitable problem solving and capacity building for citizens and City workers. They have several ways that all community members have access to participate in decisions about the City. First, there is compensation so that people without the resources of money or time can afford to participate without sacrificing their well-being and that of their families. Second, information is sent out in video, paper, online and offline formats. Third, these are translated into Providence's languages, and using language that all residents can understand. Fourth, there is respect for and value of the lived experience of Providence frontline community members of color as an essential source of expertise and wisdom. Fifth, it addresses the inequity in power and resources that "frontline communities of color" hold in Providence. Sixth, it is accountable to "frontline communities of color".[82]

Sustainable DC 2.0

Sustainable DC was launched on EARTH DAY in 2017. This kickoff included panel of community experts that discussed new technology, legislation, and innovation in sustainability needing to be reflected in Sustainable DC 2.0. Their planning process was broken up into three phases. First, was "intensive community engagement" this included community conversations and professional polling (p.13). During community conversation they talked to 3,000 residents and asked them what they like most about their neighborhoods and city, what they would want to change, and how they would make the District more equitable and sustainable. They also held two open houses and 18 casual "pop-ups" at libraries and Metro stations. Professional polling included statistically significant phone survey of residents (p.14). A firm conducted six in depth focus groups concentrating on communities that were under-represented in the development of original plan, particularly people of color, people with limited English proficiency, and small businesses.

Second, was the "formal planning" phase (p.14). This included working groups, community meetings, and technical analysts. The working groups involved 400 people who participate in one of seven working groups. Similar topics were clustered to foster broad thinking. Each working group met four to six times to identify original Sustainable DC content that should be updated or removed. They also made recommendations for new goals, targets, and actions. They also organized three larger community meetings during this time for residents to provide input and direction to the working groups. The design of community meetings prioritized the convenience of communities of color, particularly residents living in Wards 7 and 8. They held meetings at Metro-accessible venues familiar to the community. They worked with trusted community organizations to help recruit participants to events, and restructured

meetings to be less technical and more accessible. One good example is our working group launch meeting, which took place at five different community locations spread across the city to make it easier for anyone to attend at least one site. Participants at each site watched live-streamed opening remarks and a short presentation before breaking out into smaller groups to have facilitated, site-specific conversations. D.C. hired and consulting firm to perform a technical analysis to make sure the Sustainable DC goals and targets are ambitious yet achievable, and that draft actions would put the District on the path to meeting those targets. They first analyzed the original plan and recommended changes. Then they analyzed the draft plan in fall 2018 and made recommendations for how to increase the quantitative rigor of the final Sustainable DC 2.0 plan.

Third, is the "plan release" phase (p.15). This included the release of a Sustainable DC 2.0 outline and a draft Sustainable DC 2.0 plan. The Sustainable DC 2.0 Outline was released online on June 14, 2018 with a 30-day comment period. During that time, they held three "pop-ups" to talk with residents about their input and used new technology to allow people to directly edit the Outline online. In total, they received 491 comments on the Outline. Next, they released a full draft of the Sustainable DC 2.0 plan on August 30, 2018 with a 30-day comment period. During this time, they held four "pop-up" events to listen to people's thoughts on the draft plan. We also used two online platforms to allow people to edit the draft online and to inspire higher-level comments. A summary of changes between the original Sustainable DC plan and the Draft Sustainable DC 2.0 plan, in addition to a list of comments and our responses, is available at www.sustainabledc.org.[83]

Detroit Sustainability Action Agenda

Detroit defines equity five ways. First, is "procedural equity" as an inclusive, accessible authentic engagement and representation in processes to develop or implement programs and policies. Second is "distributional equity" as programs and policies result in fair distribution of benefits and burdens across all segments of our community, prioritizing those with the highest need. Third, is "structural equity" as decision-makers institutionalize accountability; decisions are made with a recognition of the historical, cultural and institutional dynamics and structures that have routinely advantaged privileged groups in society and resulted in chronic, cumulative disadvantage for others. Fourth is "transgenerational equity" as decisions consider generational impacts and do not result in unfair burdens on future generations. Fifth is "racial equity" as decisions are informed by the historic legacies and perpetuation of racism and disinvestment.[84] (p.8). Their work focuses on building new legacies of inclusion and racial equity. Detroit calls its

framework "The Agenda" which is a strategic roadmap to create a more sustainable city, a Detroit where their collective vision can be realized. This collective vision is that "All Detroiters thrive and prosper in an equitable, green city; have access to affordable, quality homes; live in clean, connected neighborhoods; and work together to steward resources."

Detroit divides its planning process up into three phases. First is "Challenges and Opportunities" that uses the methods of sustainability ambassadors, online and paper surveys, community meetings, and CoUrbanize (p. 101). Second is "refining ideas" that use the methods of town halls, practitioner workshops, CoUrbanize, and sustainability ambassadors (p.102). Third, "reviewing and prioritizing" that use the methods of focus groups, practitioner workshops, CoUrbanize, text your feedback initiative, sustainability ambassadors (p.103). Detroit employs "Sustainability Ambassadors" as a means to gain input for communities and as a channel to engage them. This allows them "to keep a finger on the pulse of our neighborhoods and empower them to join the movement." These Detroiters reached out to members of their own neighborhoods to inform and listen. This ambassador team was as diverse as the city it engaged. Ambassadors shared information with residents on the many green and quality-of-life initiatives the city can offer them. They also gathered insights from residents to inform city policy on everything from transportation and housing to community gardens. Sustainability Ambassadors ensured that every group in their city was visible and heard.[85]

Beat the Heat Hunting Park

The City of Philadelphia's Office of Sustainability launched a community-driven, equity focused approach to community climate planning in 2018 with the Beat the Heat Hunting Park Initiative. The goal was to work in one of Philadelphia's hottest and most heat vulnerable neighborhoods—Hunting Park—to identify and acknowledge causes for heat disparities while also supporting community-driven decision-making about how to reduce these inequities. Through funding from the Knight Foundation and Partners for Places, the Office of Sustainability worked with more than 30 government departments, community organizations, and stakeholders to convene Philadelphia's first Heat Team. Through this heat resiliency pilot project, the Heat Team engaged over 600 residents in an eight-month community engagement process, including hosting two large kick-off parties and participating in dozens of other community events (p.23- 25). The Heat Team recruited and invested in two Beat the Heat Team leaders and a team of four Beat the Heat Ambassadors. The Heat Team conducted a neighborhood heat survey that received 530 responses, and they collaborating with over 40 residents in a community design workshop to identify where cooling assets and resources could

be incorporated into the neighborhood. The Heat Team also organized meetings with faith leaders to begin the creation of a neighborhood heat relief network. The Heat Team's next steps include: (1) continuing to implement projects that support cooling in Hunting Park; (2) reviewing city policies related to land use, green infrastructure, transportation, and outreach to consider how they might address heat; (3) launching a Hunting Park Heat Relief Network; (4) sharing the Beat the Heat Toolkit with other heat vulnerable communities; (5) undertaking a Citywide Climate Adaptation Plan; and (6) identifying better ways to communicate about heat and cooling resources.[86]

Resilient Chicago

Resilient Chicago's planning process was divided into three phases. First is "preliminary resilience assessment" phase. The first step of this phase was "Understand Chicago" and it included the Chief Resilient Officer and his team holding an agenda setting workshop with 100 civic and community leaders. They also conducted an online survey, held in-person meetings, workshops, and panels, and conducted extensive supplemental research. The second step of the "Understand Chicago" is understanding existing efforts and this included two inventories of existing initiatives.

The first analysis was carried out through a review of five plans previously developed by the City of Chicago to gain a detailed understanding of the progress that has been made in key resilience areas. The second analysis was conducted through an examination of a broad cross-section of 184 plans, programs, initiatives, policies, and studies from various stakeholders, compiled from workshops, focus groups, meetings, press releases, and other sources. The third step in this phase is synthesize results and resulted in these four resilience challenges: 1.) reducing disparities between Chicago's neighborhoods; 2.) addressing the root causes of crime and violence; 3.) ensuring the provision of critical infrastructure; and 4.) promoting engaged, prepared, and cohesive communities. Second is the "analysis of root causes and solutions development" phase. This phase included root cause research to better design actionable solutions, solutions design & opportunities documentation to determine resilience strategy goals and actions, and steering Committee Meetings to inform strategy goals and actions.

The strategy is supported by three resilience pillars: Strong Neighborhoods, Robust Infrastructure, and Prepared Communities. "Strong neighborhoods" are to ensure every resident in every neighborhood has the access and opportunity to participate in the economic future of

Chicago. “Robust infrastructure” is to connect infrastructure investments to strategies that create economic opportunity for all Chicagoans and enhance quality of life for vulnerable communities. “Prepared communities” are to ensure that Chicagoans are engaged and informed so that they are prepared for all threats they face now and in the future. Resilient Chicago’s vision is “A resilient Chicago is a city where residents, neighborhoods, institutions, and government agencies are successfully connected to each other in the pursuit of economic opportunity, safety, equity, and sustainability.”[87]

Best practices

A committee that is demographically representative of the community with diverse perspectives creates a space for voices that are traditionally left out of government processes.[88] They should collectively schedule their meeting locations, dates, and times to maximize their ability to participate. Furthermore, obstacles that may prevent them from attending the meetings should be relieved through offering childcare, food and beverages, transportation services and interpretation services.[89]When engaging with communities that are typically underrepresented in public processes, such as low-income communities or people of color in Richmond, it is important to share and report information in a transparent way, and use trusted advocates/outreach and engagement liaisons to collect information from communities.[90] Integrating climate justice into the resiliency, adaptation, and mitigation of climate change impacts of urban communities is a growing field of research.[91][92][93][94][95] There are many ways in which researchers explore inclusive and democratic community engagement in local initiatives.[96][97][98] As mentioned earlier, food deserts and health inequities are key focuses of equity initiatives, and these are also the issues where a majority of research into inclusive community engagement focuses. The commitment of residents in environmental governance may include their involvement as citizens, consumers, and civil society in areas such as dealing with heat stress, stormwater management, and flood risks.[99][100][101] The main barriers in individual adaptation to climate change are time constraints, a need for clear instructions and guidance, a lack of knowledge of individual responsibilities, and perceptions of having little influence on the decisions taken by authorities.[102] Collaborative strategies should embrace potential, remove barriers, create junctures to make connections, and treat sites of difference as opportunities to engage the community.[103]

Recommendations

Vision

A climate action planning process that prioritizes the local knowledge of Richmond's frontline communities to increase neighborhood resilience to climate impacts, builds capacity for social and racial equity-focused planning and programs in the Richmond the region, prioritizes education in the planning process on the long-lasting effects that structural racism has had on Richmond's people of color including vulnerability to climate impacts, and begins a shift to community ownership of decision-making within planning processes.

Goals, Objectives, and Actions

Goal 1. Begin a shift to community ownership of decision-making within the climate action planning process.

Objective 1.1 Build a climate justice roundtable with diverse representation proportional to medium to high vulnerability classification in each city council voting district

Action 1.1.1 Create an online application for potential climate justice roundtable participants and distribute it to community leaders in frontline communities; and post it on the city's website, advertise on social media, local newspapers and television stations. Look for candidates with a background or interest in climate resilience, adaptation or mitigation, community engagement strategies, or health, social, or racial equity.

Action 1.1.2 Outreach to people of color, people with limited English proficiency, and small businesses owners to apply to be a potential member of the climate justice roundtable.

Action 1.1.3 Provide information that includes the time commitment, payment for their services, and any resources for participants such as childcare, dining, and transportation accommodations available.

Action 1.1.4 Select a diverse group of climate justice roundtable members proportional to the socially vulnerable population with three from district 9, 8, and 6; two from district 7, 3, and 5; and one from districts 4, 2 and 1.

Objective 1.2 Create the topical working group co-chairs with one member of city staff and one community expert.

Action 1.2.1 Compile a list of possible city staff member and community experts with knowledge in the areas of Clean Energy, High Performing Buildings, Clean Mobility, Waste & Consumption, and Adaptation & Resilience to three candidates for each area of expertise.

Action 1.2.2 Evaluate the potential topical working group for expertise, their relationship with the frontline communities, and their availability to attend the working group sessions.

Action 1.2.3 Hold a roundtable session with all six of possible working groups co-chairs together for each of the five topics, that acts as an interview process. Look for the candidates who are trusted within frontline communities as experts, seem like they would make an effective team, and whose combined knowledge and skills covers the broadest scope of the topic area with the most depth.

Action 1.2.4 Make a list of alternates in case one of the co-chairs selected for their area of expertise are not able to make one of the working group sessions due to illness, work or family obligations, etc.

Goal 2. Prioritize education in the planning process on the long-lasting effects that structural racism has had on Richmond's people of color, including vulnerability to climate impacts.

Objective 2.1 Develop equity focused – training to occur quarterly within the Office of Sustainability.

Action 2.1.1 Create training modules that include topics such as cultural humility, equity, biases, redlining, structural racism, unpacking racism, and vulnerability to climate impacts.

Action 2.1.2 Create training modules specific to the history of Richmond so that the city staff can better understand the inner workings of the neighborhoods and the communities they serve.

Action 2.1.3 Mandate Richmond's Office of Sustainability staff to complete a training module that helps them to identify and address their own biases so that they can better serve Richmond's residents.

Action 2.1.4 Recommend the Office of Sustainability's equity – focused training as a model that can be used for training throughout city departments within the City of Richmond.

Objective 2.2 Equity focused- training should be a component of each meeting of the climate justice roundtable or the working groups co-chairs.

Action 2.2.1 Design a brief equity training that includes examples of how equity can be centered in the topic of discussion for that week.

Action 2.2.2 Instill an open discussion portion of the meetings where members of the roundtable or working groups can share their personal stories related to equity and the topic of that week's session.

Goal 3. Enhance the resources available to frontline community to lead community-based initiatives to increase neighborhood resilience to the impacts of climate change.

Objective 3.1 Increase awareness of current sustainability initiatives that are available to Richmond residents.

Action 3.1.1 Create an information sheet that lists all the current sustainability initiatives, post it on the city website, and give handouts to frontline community leaders to disperse.

Action 3.1.2 Attend events hosted by frontline communities and do pop-up information sessions about sustainability initiatives.

Action 3.1.3 Hold quarterly update sessions in locations near GRTC bus stops, that are familiar to the frontline communities such as churches or libraries, that discuss the progress of planning process and where community members are encouraged to give their feedback.

Objective 3.2 Increase the funding options available to Richmond residents that would like to make their community more climate resilient.

Action 3.2.1 Get line items in the city budget to resource community driven work.

Action 3.2.2. Ensure city grant guidelines are relevant & applicable to leadership within the impacted communities.

Action 3.2.3. Advocate for contracting & procurement practices within the city to increasingly hire community- based organizations.

Goal 4. Build capacity in the Richmond region for social and racial equity-focused planning and programs.

Objective 4.1 Educate Richmond region about current planning processes that are centering equity.

Action 4.1.1 Provide lessons from the Office of Sustainability planning process of RVAgreen 2050 to help consultants and clients do this sort of work.

Action 4.1.2 Prepare and document the detail specific steps of how RVAgreen 2050 centered equity within its climate action process on the City of Richmond's Office of Sustainability's website.

Objective 4.2 Build the understanding of and the need for more equitable planning processes.

Action 4.2.1 Support organizations (including city departments) to develop more capacity internally through equity focused training.

Action 4.2.2 Build capacity for equitable planning externally through consultants and the lived experience of residents to do this work.

Action 4.2.3 Encourage local high school and college education institutions to add courses covering equity focused topics to their curriculum or create a service-learning course where the class acts as an equity consultant.

Appendix A: Equity Scores

Table 1. Overall Equity Scores

Criteria	Baltimore	Boston	Chicago	Cleveland	D.C.	Detroit	Milwaukee	Philadelphia	Providence	St. Paul
commitment to collaborative governance total	75%	88%	88%	88%	88%	88%	75%	75%	88%	75%
city capacity & racial equity training total	60%	60%	60%	60%	80%	80%	60%	60%	90%	40%
city resources total	0%	50%	13%	0%	38%	25%	13%	25%	63%	38%
power balance & ensure equity total	88%	75%	75%	88%	88%	88%	75%	88%	100%	50%
community resources total	36%	50%	57%	36%	50%	36%	43%	50%	79%	29%
equitable-decision making capacity total	50%	50%	71%	64%	86%	79%	71%	71%	93%	43%
purpose clarity total	85%	70%	85%	75%	90%	80%	70%	80%	95%	70%
community organizing & power building total	67%	61%	72%	67%	72%	78%	61%	67%	61%	33%
trust & relationship building total	72%	67%	72%	72%	78%	72%	67%	78%	89%	67%
power & influence community groups total	50%	56%	56%	69%	75%	69%	63%	75%	81%	31%
total equity score	58%	63%	65%	62%	74%	69%	60%	67%	84%	48%

Table 2. Networks Building

Criteria	Role of the government	Baltimore	Boston	Chicago	Cleveland	D.C.	Detroit	Milwaukee	Philadelphia	Providence	St. Paul
Community Organizing and Power Building	cultivate philanthropic partners?	2	1	2	2	2	2	1	2	2	1
	invest in community organizing capacity?	2	2	2	2	2	2	2	2	2	1
	comprehensive strategy for closing equity gaps?	2	2	2	2	2	2	2	2	2	1
	build committees with representation from each municipal district?	1	2	2	1	2	2	1	1	1	1
	representation from each major community that makes up the city's cultural & ethnic diversity?	1	2	2	2	2	2	2	2	1	0
	support community organizing advocacy and healthy conflict coming from community-based organizing partners?	1	0	1	1	1	1	1	1	1	1
	establish lines of communication with community-based organizations to avoid being caught off guard by protests?	1	1	1	1	1	2	1	1	1	1
	leverage protests, mobilizations, and other elements of outside organizing to encourage internal policy and systems change?	2	1	1	1	1	1	1	1	1	0
community organizing & power building total		67%	61%	72%	67%	72%	78%	61%	67%	61%	33%
Trust & Relationship Building	understand the social justice landscape within their city?	2	2	2	2	2	2	2	2	2	2
	know the strengths & assets the community partners can bring to the initiatives?	1	1	2	2	2	2	2	2	2	2
	focus on "we" to chip away at the divide between community & government?	2	2	2	2	2	2	1	2	2	2
	transparent as possible when communicating opportunities as well as barriers to achieving goals?	1	0	1	1	1	1	1	1	1	1
	avoid using empty equity rhetoric?	1	1	1	1	1	1	1	1	1	1
	keep their word and communicate clearly & openly?	1	1	1	1	1	1	1	1	2	1
	seek to find win-win solutions with community groups?	1	2	1	2	2	2	2	2	2	1
	take full responsibility for mistakes & missteps that negatively affect community leaders?	2	1	1	1	2	1	1	1	2	1
	work to rectify past harm in ways that are relevant & meaningful to those harmed?	2	2	2	1	1	1	1	2	2	1
trust & relationship building total		72%	67%	72%	72%	78%	72%	67%	78%	89%	67%
Power & Influence of Community	conduct a preliminary power mapping?	0	0	0	0	0	0	1	1	1	0
	support community leaders in navigating current systems?	1	2	2	2	2	2	2	2	2	1
	identify leverage points for systems change?	1	0	1	1	1	1	1	1	2	0
	power mapping with community partners to inform policy & systems change strategies?	1	0	1	1	1	1	1	1	1	0
	track progress towards meeting equity goals?	2	2	1	2	2	2	1	2	2	1
	communicate progress (as well as barriers) regularly across departments and to senior management?	1	2	1	2	2	1	1	1	1	1
	cultivate multiple opportunities for community partners to meet with key decision-makers?	1	2	2	2	2	2	2	2	2	1
	identify opportunities to break down existing reluctance to share information between & within government agencies & departments?	1	1	1	1	2	2	1	2	2	1
power & influence community groups total		50%	56%	56%	69%	75%	69%	63%	75%	81%	31%
networks building total		63%	61%	67%	69%	75%	73%	63%	73%	77%	44%

Table 3. Centering Equity

Criteria	Role of the government	Baltimore	Boston	Chicago	Cleveland	D.C.	Detroit	Milwaukee	Philadelphia	Providence	St. Paul
Principles and Practice to Balance Power and Ensure Equity at Every Step	open to discussing, assessing, and addressing existing power dynamics that limit effective collaboration?	2	2	2	2	2	2	2	2	2	1
	allow facilitation and agenda-setting to be conducted by committee members within community-centered committees?	2	2	2	2	2	2	2	2	2	1
	have third-party facilitators trusted by the community-based organizations?	2	1	1	2	1	2	1	1	2	1
	allow time and space for a consensus - building that supports effective solutions design?	1	1	1	1	2	1	1	2	2	1
power balance & ensure equity total		88%	75%	75%	88%	88%	88%	75%	88%	100%	50%
Community Resourcing	provide equity stipends to the community leaders who participate as leads in collaborative initiatives?	1	1	1	1	0	1	0	1	1	0
	meet basic needs such as food, translation, child care, and timing of the meetings?	0	1	1	0	2	0	1	0	2	0
	ensure city grant guidelines are relevant & applicable to leadership with impacted communities?	1	0	1	1	1	1	1	1	2	1
	focus its data collection on storytelling?	1	2	2	1	1	2	1	2	1	1
	get line items in city budgets to resource community-driven planning work?	1	1	1	1	2	0	1	1	2	1
	public assets (land & facilities) are available at little to no cost to community collaborative to be used for the public good?	0	0	1	0	0	0	1	1	2	0
	shift contracting & procurement practices to increasingly hire community-based organizations?	1	2	1	1	1	1	1	1	1	1
community resources total		36%	50%	57%	36%	50%	36%	43%	50%	79%	29%
Equitable-Decision Making Capacity	transparent about how decisions are made at the departmental & city levels	1	1	1	1	1	1	1	1	1	1
	partner with community to define the problem?	1	1	2	2	2	2	2	2	2	1
	partner with community to design the solution before the policy development process?	1	1	2	2	2	2	2	2	2	1
	allow time for collaborative design?	1	1	1	1	2	2	2	2	2	1
	collaborate with community to set equity goals?	2	2	2	2	2	2	2	2	2	1
	conduct equity impact assessments before finalizing decisions?	0	0	1	0	2	1	0	0	2	0

	ensure that all parties impacted by decisions are informed of the decision and the impacts?	1	1	1	1	1	1	1	1	2	1
equitable-decision making capacity total		50%	50%	71%	64%	86%	79%	71%	71%	93%	43%
Purpose Clarity	vision statement or core motivation?	2	2	2	2	2	2	2	2	2	2
	unique role in achieving equity?	1	1	2	1	2	1	1	2	2	1
	start by identifying a shared purpose at the intersection of each stakeholder's goals?	1	1	2	2	1	2	2	2	2	1
	initiative plays a unique role in advancing racial & environmental equity solutions?	1	1	1	1	1	1	1	2	1	1
	reflect & evolve as conditions change?	2	1	1	1	2	0	1	1	2	2
	designs initiatives to prioritize equity?	2	2	2	2	2	2	2	2	2	2
	has support from the mayor for equity-center climate action planning?	2	2	2	1	2	2	1	1	2	2
	inclusive engagement of frontline communities?	2	2	2	2	2	2	2	2	2	1
	uses data to track progress of centering equity in planning process?	2	1	2	2	2	2	1	1	2	1
	monitors equity through each phase of process?	2	1	1	1	2	2	1	1	2	1
purpose clarity total		85%	70%	85%	75%	90%	80%	70%	80%	95%	70%
centering equity overall		65%	61%	72%	66%	78%	70%	65%	72%	92%	48%

Table 4. Accountable Governance

criteria	Role of the Local Government	Baltimore	Boston	Chicago	Cleveland	D.C.	Detroit	Milwaukee	Philadelphia	Providence	St. Paul
Commitment to Collaborative Governance	evaluator with a community ownership lens?	1	1	1	1	1	1	1	1	1	1
	facilitate development learning & evaluation throughout the process?	2	2	2	2	2	2	2	2	2	1
	integrate feedback into the practice?	2	2	2	2	2	2	1	2	2	2
	document & share lessons learned via government networks to promote the model?	1	2	2	2	2	2	2	1	2	2
commitment to collaborative governance total		75%	88%	88%	88%	88%	88%	75%	75%	88%	75%
City Capacity & Racial Equity Training	leaders with lived experience conducive to collaborating effectively with impacted communities?	2	0	1	1	2	2	1	2	2	1
	cross-departmental core team dedicated to cultivating the necessary policy and systems changes needed to close equity gaps?	1	2	1	1	2	2	2	1	2	1
	minority staff is not tokenized or overburdened?	0	0	0	0	0	0	0	0	1	0
	support all staff, including the white staff, in building authentic relationships with the impacted communities?	1	2	2	2	2	2	1	2	2	1
	actively communicate about & seek to replicate racial equity practices across departments and management levels?	2	2	2	2	2	2	2	1	2	1
city capacity & racial equity training total		60%	60%	60%	60%	80%	80%	60%	60%	90%	40%
City Resourcing	reflect the ethnic diversity of the community it serves?	0	0	0	0	0	1	0	1	1	1
	phased resources to ensure this?	0	2	0	0	1	1	0	1	1	0
	hiring goals to ensure this?	0	0	0	0	0	0	0	0	1	0
	advocate for changes in how budgets are developed to be more inclusive & less isolated from others?	0	2	1	0	2	0	1	0	2	2
city resources total		0%	50%	13%	0%	38%	25%	13%	25%	63%	38%
accountable governance total		45%	66%	53%	49%	68%	64%	49%	53%	80%	51%

Appendix B: Lessons Learned

Time	Accomplishments	Lessons learned	Notes
Mid 2018	Understanding the cutting edge of climate action planning through different peer networks	Recognizing the importance of adaptation	It's not just climate action, it's also adaptation, even if Richmond went down to zero emissions that would not make a huge dent in the global picture. Climate action is already happening to us, we are already seeing: higher average temperatures, more heatwaves, more intense storm events, more irregular weather patterns. Adaptation is preparing for those impacts and becoming a more resilient community, not just the impacts we are experiencing now but what are we projecting for mid-century, what will it look like then?
Mid 2018	Capacity building around social equity within mitigation and adaptation	Social equity- flipping the thinking	"Equity Lens- "meaning they would develop a climate action plan and then any of the potential strategies that would be put into the plan would then be put through an equity lens (how does this climate action strategy promote equity?) They realized this should be flipped so that it is a strategy that benefits the community on the social equity side that also reduce carbon emissions or also contributes to climate resilience

April 2019 to Sept. 2019	RVAgreen 2050's framework of equity modified from Government Alliance for Racial Equity: Procedural equity: Everyone can influence process and access programs Distributional Equity: Benefits and burdens are fairly shared Structural Equity: Change inequitable outcomes and systems that create those outcomes	Open and Honest Communication is critical Listen to the community and show in your actions that you heard them Consult the community directly as possible in the very beginning of the process Miscommunication can delay the process allow the time to discuss disagreements to come to an understanding of each other perspective, and to adjust your schedule accordingly	Four meetings where the Office of Sustainability provided lunch The purpose of the meetings was to form an idea of what the planning process could look like over the next two years The way that they got to the EAC is they started a list of stakeholders who wanted to be involved in the RVAgreen 2050 planning process generally This was through conversations with people where we would say we want to do this thing around equity who should we be talking to and we got a lot of names and organizations Reached out to fifteen individuals- some of them represented health organizations, community organizations, and neighborhood resources EAC consisted of eight people we framed this as procedural, structural, and distributional equity but we didn't know how to do it .
April 2019 to Sept. 2019	Climate Equity Index	Who is the medium to highly vulnerable populations to climate impacts in Richmond? In Richmond, climate change impacts include rising temperatures, more intense rain events, and localized flooding These are the neighborhoods that are going to experience the first and worst climate impacts. How can we help these people?	Look at all your cities assets- built and natural "Social vulnerabilities" are 4 or 8 factors that would be put into a matrix to say where are our more vulnerable populations in terms of climate impacts include rising temperatures, more intense rain events, and more localized flooding Most common social vulnerability factors found in research of other climate equity indexes were: race, ethnicity, poverty, age (65 or above, or 5 or below), health indicators (asthma or respiratory illnesses), education (lack of a high school diploma) 39 factors- is a statistical based analysis- for each census tract what percentage of the population is facing "X" vulnerability (below the poverty level, limit access to food, single parent homes, mobile homes)

			It spit out here are the resulting vulnerability scores relative to all the other census tracts in the city to give us a picture or where the more vulnerable census tracts are When we say census tract, we mean neighborhood, it is more easily understood than census tracts This map shows there are more vulnerable neighborhoods in the city, if you were to look at the map, and compare it a map where minorities or communities of color live it would look the same Grounded us in the truth that it really comes down to race and ethnicity, confirming this now with disaggregate data by African Americans and Hispanic populations
Summer 2019	Equity coach	Helped them work through some of the bigger principles of this work What does equity planning look like?	Gave us advice on how to best utilize this EAC: what questions to ask them? What type of information to provide, what could they provide us feedback on, so this is how we can potentially move forward? To her advice we wanted to start this group with the big picture so we went into the first meeting with PowerPoints showing what we were trying to do
Summer 2019	EAC	First Meeting	Big Picture: 1,) come up with a general idea of equity within this planning process, 2.) design principles- given this definition what are we trying to accomplish Examples from other cities, open discussion pretty general, not big outcomes During a brainstorming activity someone wrote on a post it notes that the frontline community (those impacted first and most by climate change) should be involved in this (showed that they were on the same page). At the time they were saying how do we go out to the community to ask those questions? EAC was saying just go out to the community and ask those questions? Setting definitions and principles

April 2019 to Sept. 2019	RVAgreen 2050's framework of equity modified from Government Alliance for Racial Equity: Procedural equity: Everyone can influence process and access programs Distributional Equity: Benefits and burdens are fairly shared Structural Equity: Change inequitable outcomes and systems that create those outcomes	Open and Honest Communication is critical Listen to the community and show in your actions that you heard them Consult the community directly as possible in the very beginning of the process Miscommunication can delay the process allow the time to discuss disagreements to come to an understanding of each other perspective, and to adjust your schedule accordingly	Four meetings where the Office of Sustainability provided lunch The purpose of the meetings was to form an idea of what the planning process could look like over the next two years The way that they got to the EAC is they started a list of stakeholders who wanted to be involved in the RVAgreen 2050 planning process generally This was through conversations with people where we would say we want to do this thing around equity who should we be talking to and we got a lot of names and organizations Reached out to fifteen individuals- some of them represented health organizations, community organizations, and neighborhood resources EAC consisted of eight people we framed this as procedural, structural, and distributional equity but we didn't know how to do it
April 2019 to Sept. 2019	Climate Equity Index	Who is the medium to highly vulnerable populations to climate impacts in Richmond? In Richmond, climate change impacts include rising temperatures, more intense rain events, and localized flooding These are the neighborhoods that are going to experience the first and worst climate impacts. How can we help these people?	Look at all your cities assets- built and natural "Social vulnerabilities" are 4 or 8 factors that would be put into a matrix to say where are our more vulnerable populations in terms of climate impacts include rising temperatures, more intense rain events, and more localized flooding Most common social vulnerability factors found in research of other climate equity indexes were: race, ethnicity, poverty, age (65 or above, or 5 or below), health indicators (asthma or respiratory illnesses), education (lack of a high school diploma) 39 factors- is a statistical based analysis- for each census tract what percentage of the population is facing "X" vulnerability (below the poverty level, limit access to food, single parent homes, mobile homes)

			It spit out here are the resulting vulnerability scores relative to all the other census tracts in the city to give us a picture or where the more vulnerable census tracts are When we say census tract, we mean neighborhood, it is more easily understood than census tracts This map shows there are more vulnerable neighborhoods in the city, if you were to look at the map, and compare it a map where minorities or communities of color live it would look the same Grounded us in the truth that it really comes down to race and ethnicity, confirming this now with disaggregate data by African Americans and Hispanic populations
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Summer 2019	EAC	First Meeting Setting definitions and principles	Big Picture: 1,) come up with a general idea of equity within this planning process, 2.) design principles- given this definition what are we trying to accomplish Examples from other cities, open discussion pretty general, not big outcomes During a brainstorming activity someone wrote on a post it notes that the frontline community (those impacted first and most by climate change) should be involved in this (showed that they were on the same page). At the time they were saying how do we go out to the community to ask those questions? EAC was saying just go out to the community and ask those questions?

Summer 2019	EAC	Second Meeting	Intention was to go through the highlights of the previous meeting's discussion Stumble #1: Let's just repeat what we already did last time and make sure that we heard you correctly- they said you are not hearing us, we said to involve the community EARLY- not us (meaning the EAC)- people at the meeting were more organizational representatives, who work with the community but are not representative of the community EAC was saying we are telling you to go to the community and but instead you keep asking us these questions It took more discussions in session two and into the third meeting, with us saying we are hearing you, let's change tactics; we weren't asking the questions in the right way potentially we weren't hearing the group well and how they wanted to contribute their time Perhaps there was a miscommunication where we did not intend for them to feel like they were representing the community as a whole but that is what they felt like we were doing We had to honor their feelings but we weren't doing that, we were saying don't worry about that this isn't final, we just need some initial ideas, they were like we don't even want to provide that
July 9, 2019	EAC	Third Meeting	Let's start from a different point, we're hearing you how would you like to advise us? EAC said come back to us with a draft plan →and we'll say yes go to the community this way →go to them with this question What they talked about at the end of this meeting was—they agreed as a group to two things— 1.) As the government we would go out to the community and ask these questions, EAC suggested we participate in National Night Out in Mid-August Early August start talk to people about climate, do they know what it is, what is the level of education needed to talk to start talking about the issues

			2.) Come back after with the same group with a draft plan—here are our thoughts based on best practices we've done, examples from other cities, what we've already gathered from our conversations with you guys—and with other people, have at it, tear it apart tell us how we should go forward with this
August 8 2019	National Night Out Citywide block party initiative where any neighborhood has a party outside—it's rooted in public safety—opportunity to spread the word about anything happening in your neighborhood	Developed two surveys to table with (both had an English and Spanish version)	Brianne was at one location and Kyla was at another—East End (Fulton) and Southside (near Hunter Holmes McGuire Veteran's Hospital)—both with medium to higher end of our vulnerability map Engaged the EAC to develop two surveys (mixed them so it was random who got which survey): one didn't mention climate change at all—fill a survey here at the table we'll give you a T-shirt (RVAgreen 2050 one)—also had some information about heat safety—heat islands, what's happening because of climate change, what resources do we have? Ask whether they knew someone that has had health concerns related to heat or flooding→ whether it has been happening in their neighborhood—how do they deal with it? What does climate change mean to you? Both surveys had the same demographic questions and the same question—would you be willing to provide more information—participate in some way—survey, neighborhood meeting, etc.—the ideal was to see what kinds of responses we were getting just as a baseline depending on the language, we used→ if we use the word climate change, do people know what we are saying—do they get a sense of urgency, do they want to act, are they see it as a problem?—if we use the words heat and flooding are people more inclined to want to act about it. In the heat and flood survey—(without mention of climate change)—they are generally had less to say about it being a problem—they wouldn't immediately say that you know that heat wave it was really dangerous to me—we would have to prompt them—with do you have and problems when it gets hot in the summer?—they would respond—no it's fine—does it cause any problems with your health—no it's fine—do you know any one that has been impacted by heat?—people weren't initially connecting heat as a danger especially in the terms of pre-existing conditions

			In the climate change survey—people were generally more willing to participate particularly in providing more information—some sort of meeting about it—generally know that it's an issue, what can they do to help! Compared the demographics of the survey to citywide so generally you can see we were in a neighborhood with more people that in the citywide average that were African American and they were a more educated crowd
Early Sept 2019	EAC	Fourth Meeting	Worked with our equity coach and said this didn't work with this group how do we use their time We came to them with some ideas around the process, this discussion was really nice they appreciated that we put a lot of work into our thought around what an equitable process would look like—they were very willing and open to give us feedback on this—so in the end it was a successful effort, it just took a little while, a little longer than we thought to get to a good conversation with this group. They left the EAC saying that they would keep them posted on what we were focusing on—the draft proposal—haven't really been in contact with EAC as a whole—however, one of the group members—one of the more vocal participants who said that we were doing this wrong—became Brianne's personal equity coach—so it is a more positive relationship Realized they needed more specific peer city research—we know we some sort of application or selection process for getting a group of residents or our central advisory group which we are calling a roundtable—how do we do that? —other city applications? —how did they do this process?
March 2020	COVID-19	Adapting planning process to the social distancing and telecommuting planning process	We have to keep going, what can we do know? Kendra came up with an innovative, RVAgreen 2050 *Virtual Ambassador Program*, more information may be found at: https://www.rvagreen2050.com/ambassador-program We know that is not going to work for everyone, due to lack of internet access—must be open and honest about this Seeking the communities input about in making it more equitable—trust building. Honest and transparency—

			Mayor Stoney said RVAgreen 2050 relates directly to his "One Richmond goal"— "RVA Strong'' Pandemic—need for crisis planning, emergency planning, resiliency planning, and interconnect department city wide COVID-19 inequities are consistent with the climate inequities that the community engagement strategies mentioned later need to be updated to our new social distancing protocol with new strategies designed for the digital world. a way to reduce our carbon emissions could be to transition the jobs that can be done at home to a permanent telecommuting position, so that less miles are traveled to work. this global pandemic brought to the forefront the need for a more resilient public health system, that has a network and supply chain in place with the capacity to obtain medical supplies such as personal protective equipment (PPE) and ventilators, in an equitable manner.
Source: personal interviews about RVAgreen 2050 planning process with Brianne Mullen and Kendra Norrell, City of Richmond's Office of Sustainability			

Appendix C: Racial Equity Definitions

Term	Definition	Source
Accountability	visible, with a transparent agenda and process; detection and examination; commitment with a sense of urgency and becoming a true stakeholder in the outcome; may be externally imposed (legal or organizational requirements), or internally applied (moral, relational, faith-based or a combination of the two) on the institutional, organizational, or individual level; it is not always doing it right, sometimes it's really about what happens after it's done wrong	Accountability and White Anti-Racist Organizing: Stories from Our Work, Bonnie Berman Cushing with Lila Cabbil, Margery Freeman, Jeff Hitchcock and Kimberly Richards
Culture	a social system of meaning and custom that is developed by a group of people to assure its adaptation and survival; groups are distinguished by a set of unspoken rules that shape values, beliefs, habits, patterns of thinking, behaviors and styles of communication	A Community Builder's Tool Kit. Institute for Democratic Renewal and Project Change Anti-Racism Initiative.
Diversity	all the ways in which people differ; encompasses all the different characteristics that make one individual or group different from another; all-inclusive and recognizes everyone and every group as part of the diversity that should be valued; it includes not only race, ethnicity, and gender— but also age, national origin, religion, disability, sexual orientation, socioeconomic status, education, marital status, language, and physical appearance; involves different ideas, perspectives, and values	Glossary of Terms UC Berkeley Center for Equity, Inclusion and Diversity
Inclusion	authentically bringing traditionally excluded individuals and/or groups into processes, activities, and decision/policy making in a way that shares power	Some Working Definitions, OpenSource Leadership Strategies
Institutional racism	the ways in which institutional policies and practices create different outcomes for different racial groups; institutional policies may never mention any racial group, but their effect is to create advantages for whites and oppression and disadvantage for people from groups classified as people of color	Flipping the Script: White Privilege and Community Building. Maggie Potapchuk, Sally Leiderman, Donna Bivens and Barbara Major. 2005.
People of color	the term "people of color" has been used since the late 1970s as an inclusive and unifying frame across different racial groups that are not White, to address racial inequities; describes people with their own attributes (as opposed to what they are not, e.g., "non-White"); it is important whenever possible to identify people through their own racial/ethnic group, as each has its own distinct experience and meaning and may be more appropriate.	Race Forward, "Race Reporting Guide"
Power	unequally distributed globally and in U.S. society; some individuals or groups wield greater power than others, thereby allowing them greater access and control over resources; wealth, whiteness, citizenship, patriarchy, heterosexism, and education are a few key social mechanisms through which power operates; it is often conceptualized as power over other individuals or groups; other variations are power with (used in the context of building collective strength) and power within (which references an individual's internal strength)	Intergroup Resources, 2012
(table continues to the next page)		
Term	**Definition**	**Source**

Privilege	unearned social power accorded by the formal and informal institutions of society to ALL members of a dominant group (e.g. white privilege, male privilege, etc.); is usually invisible to those who have it because we're taught not to see it, but nevertheless it puts them at an advantage over those who do not have it	Colors of Resistance Archive Accessed June 28, 2013.
Race	is a made-up social construct, and not an actual biological fact; race designations have changed over time some groups that are considered "white" in the United States today were considered "nonwhite" in previous eras, in U.S. Census data and in mass media and popular culture (for example, Irish, Italian and Jewish people); the way in which racial categorizations are enforced (the shape of racism) has also changed over time	Paul Kivel, Uprooting Racism: How White People Can Work for Racial Justice (Gabriola Island, British Columbia: New Society Publishers, 2002), p.141.
Racial and Ethnic Identity	an individual's awareness and experience of being a member of a racial and ethnic group; the racial and ethnic categories that an individual chooses to describe him or herself based on such factors as biological heritage, physical appearance, cultural affiliation, early socialization, and personal experience	Teaching for Diversity and Social Justice: A Sourcebook. Maurianne Adams, Lee Anne Bell, and Pat Griffin, editors. Routledge, 1997.
Racial Equity	is the condition that would be achieved if one's racial identity no longer predicted, in a statistical sense, how one fares; when we use the term, we are thinking about racial equity as one part of racial justice, and thus we also include work to address root causes of inequities not just their manifestation; this includes elimination of policies, practices, attitudes and cultural messages that reinforce differential outcomes by race or fail to eliminate them	Center for Assessment and Policy Development
Structural Racism	the normalization and legitimization of an array of dynamics – historical, cultural, institutional and interpersonal – that routinely advantage Whites while producing cumulative and chronic adverse outcomes for people of color; encompasses the entire system of White domination, diffused and infused in all aspects of society including its history, culture, politics, economics and entire social fabric is more difficult to locate in a particular institution because it involves the reinforcing effects of multiple institutions and cultural norms, past and present, continually reproducing old and producing new forms of racism; it is the most profound and pervasive form of racism – all other forms of racism emerge from structural racism	Racial Justice Action Education Manual. Applied Research Center, 2003.
Targeted Universalism	means setting universal goals pursued by targeted processes to achieve those goals. Within a targeted universalism framework, universal goals are established for all groups concerned; the strategies developed to achieve those goals are targeted, based upon how different groups are situated within structures, culture, and across geographies to obtain the universal goal; is goal oriented, and the processes are directed in service of the explicit, universal goal	Targeted Universalism: Policy & Practice A Primer. John A. Powell, Stephen Menendian, Wendy Ake

Modified definitions from the Racial Equity Tools. Source: MP Associates, Center for Assessment and Policy Development and World Trust Educational Services. (2019). "www.racialequitytools.org glossary". Retrieved from: https://www.racialequitytools.org/resourcefiles/RET_Glossary_Updated_October_2019_.pdf

Appendix D: Equity Insights from Content Analysis

Saint Paul Climate Action and Resilience Plan[104]		
Equity	"The effects of climate change are apparent in Saint Paul and have a disproportionate impact on low-income communities, especially low-income communities of color. This plan identifies not only strategies to decrease emissions, but also strategies to mitigate negative impacts of climate change so that all community members, present and future, can experience a high quality of life."	p. 9
Framework	Strategic Framework for community resilience	p. 15
Strategy	Energy efficiency— "Energy Burden is defined as the percent of household income spent annually on energy. Understanding energy burden and how it is distributed across neighborhoods, racial and ethnic groups, and household types can help to better target low-income energy efficiency programs in Saint Paul."	p. 37
Steps in planning process	Five in-person forum—were held in partnership with regularly scheduled events—pursued meeting spaces where diverse resident voices would be heard and engaged—held in neighborhoods across the community—developed an interactive game to help community members engage and prioritize strategies for individual sector emissions reductions goals—game provided a relative emissions impact for different strategies and the proportional cost associated with implementation—participants were encourage to discuss the benefits and risks—provide a consensus-driven ranking—also an opportunity for meeting attendees to suggest or discuss additional strategies for inclusion in the plan—online feedback portal, where interested parties could submit could submit longer, narrative comments—the portal was open for three months- held focused stakeholder meeting to discuss certain components of the plan like equity and workforce development	p. 10
Lessons learned	Politically engaged residents empowered to make decisions help sustain long-term involvement. Our youth benefit from a strong network of educational resources, learning opportunities, and are engaged in every aspect of decision-making. A clear focus on innovation, workforce participation, and opportunities for all students in green jobs of the present and future ensure access to green workforce training at the post-secondary level. Environmental stewardship is a hallmark of Saint Paul's climate action and adaptation efforts.	p.11
Best practices	Near-term strategies are linked to important guiding themes for the city • Prioritize conservation, energy efficiency, and energy recovery • Prioritize renewable-based distributed generation and energy storage • Ensure solutions and opportunities are equitable, particularly in communities and households of color • Commit to reducing the energy burden on low- to moderate-income residents • Focus on efforts that result in co-benefits (e.g. employment, economic development, other environmental benefits such as water conservation and improved air quality) • Showcase best practices and innovative solutions	p. 33
Implementation	Uses Clear Path to complete its annual GHG inventory— GreenStep Cities Step 4 and 5 allow cities to track both community-wide and city operations emissions, as well as relevant metrics like tree canopy and water quality— Share progress publicly and regularly through the city's website, social media, and other communication channels. Celebrate successes, both small and large, with staff and the community to create a positive culture around climate action— Funds raised through city mechanisms: franchise fee, dedicated fee or tax increase, reallocation of existing funds such as Capital Improvement Budgets and the STAR program— Financing programs like Property Assessed Clean Energy, Trillion BTU, or green bonds can support private investment in efficiency and renewable energy— Inclusive financing or similar structures can help support residential efficiency improvements.—Crowd sourcing funds for specific projects— Foundation funding to leverage other private or public resources--In the first year of plan implementation, the city should establish internal and external capacity, determine priorities through the development of a work plan, and set a budget to get started working toward emissions reductions. Transparency and building relationships early will help establish trust, provide accountability, and spur action.	p. 65

2019 Baltimore Sustainability Plan[105]		
Equity	Equity: "The condition that would be achieved if identities assigned to historically oppressed groups no longer acted as the most powerful predictors of how one fares." — Baltimore Racial Justice Action	p. 9
Framework	Community—Human Made Systems—Climate & Resilience—Nature in the City—Economy	p. 1
Strategy	targeted universalism	p. 9
Steps in planning process	"In order to include many voices in the Plan, over 125 residents signed on as Sustainability Ambassadors, 68 percent of whom are African-American. Together, we developed a survey that reached 1,200 neighbors, friends, and family. Interviews offered the opportunity for neighbors to talk with one another about their ideas, needs, and visions for the future. Ambassadors received equity training, which encouraged participants to recognize their own biases. They left the trainings excited and committed."	p. 21
Lessons learned	"We also learned that giving residents a voice in plan development was invaluable—and that while our process was viable, it was only a starting point. The plan is meant to be implemented by anyone and everyone in the city, not only by government agencies. The strategies and actions require ongoing engagement with those who will be leading projects as well as with those whose daily lives will be impacted by a more sustainable Baltimore and who will be ultimate judges of the Plan's success."	p. 22
Best practices	Annual reporting, Annual Open House, and Periodic Update	p.7
Implementation	"Equitable Impacts Analysis— a. Accessibility: In what ways are the benefits of the proposed action accessible to households, organizations, and businesses throughout the community—particularly those organizations run by and for historically under-represented communities? b. Capacity Building: How does the proposed action help build community capacity through an expanded knowledge base, funding, or other resources? c. Alignment: How does the proposed action align with and support existing priorities of historically under-represented communities? d. Disproportionate Impacts: How does the proposed action generate burdens, either directly or indirectly, to groups whose life outcomes are disproportionately affected by structures in society? Are there opportunities to mitigate these impacts? e. Economic Opportunity: How does the proposed action support historically under-represented communities through workforce development, living wage jobs, small business, and/or contracting opportunities? f. Displacement: Can this action create destabilizing forces that could result in the displacement of a community? What actions would need to be taken to eliminate this threat?"	p. 136

MMSD 2019 Resilience Plan[106]		
Equity	"SOCIAL EQUITY: Social issue due to segregation: inequalities, crime and violence."	p. 27
Framework	City Resilience Framework	p. 18
Strategy	Resiliency Strategy	p. 16
Steps in planning process	Literature review of planning documents for best practices, stakeholder interviews, risk workshop, advisory committee, action prioritization workshop, digital community survey	p.20-21
Lessons learned	Community resources fall into three categories: social services, municipal services, and public safety	p. 46
Best practices	Risk identification from stakeholder interviews—Aging infrastructure—Drinking water supply—Economic hazards—availability of jobs, getting people to jobs, succession planning and filling middle-level positions—Flooding and extreme weather events—Impacted quality of life—potentially from increased traffic and lack of services that residents want—Limited public financing—due to State levy limits	p. 25
Implementation	Each Action at its own implementation: Action 11→ 1. Identify the synergies between the water and energy sectors' stakeholders—2. Build a joint entrepreneurship program	p. 52

	based on the identified needs—3. Accompany and mentor startups—4. Develop internship programs	
Cleveland Climate Action Plan 2018 Update[107]		
Equity	"Equity: Understanding and giving people what they need to enjoy full, healthy lives. Racial equity, in particular, is the condition that would be achieved if one's race no longer predicted how one fares."	p. 9
Framework	Energy Efficiency and Green Building, Clean Energy, Sustainable Transportation, Clean Water and Vibrant Green Space, More Local Food, Less Waste	p. 16
Strategy	Cross-Cutting Priorities	p. 32-33
Steps in planning process	Learn More. Say More. Do More: Workshops on Health, Community and Climate Action— The Cleveland Climate Action Fund Crowd-Funding Challenge	p. 6- 7
Lessons learned	List of Appendices include: APPENDIX A: Cleveland Climate Action Plan Racial Equity Tool— APPENDIX B: Green Jobs / Workforce Development Analysis— APPENDIX C: Climate and Social Vulnerability Assessment— APPENDIX D: City of Cleveland Greenhouse Gas Inventory: An Analysis of Citywide Emissions for 2010-2016— APPENDIX E: Climate Action Implementation Plans— APPENDIX F: Corporate Environmental and Social Governance Analysis Available at: https://www.sustainablecleveland.org/climate_action	p. 78
Best practices	"Community hubs that implement best practices of energy efficiency and resiliency are integral to a community's ability to respond during extreme weather events. If the grid goes down or Cleveland experiences extreme heat or cold snaps, buildings like rec centers, libraries, schools, community development corporations (CDCs), and places of worship can serve a critical role for residents in need."	p. 28
Implementation	Implementation & Tracking Progress (including financing)	p. 74-75
Boston 2019 Climate Action Plan Update[108]		
Equity	"The City of Boston is committed to simultaneously addressing racial and social equity and environmental challenges. Vulnerable groups such as communities of color and low-income neighborhoods are often disproportionately impacted by environmental shocks and stresses and are less likely to have access to the resources necessary for recovery. Climate action in Boston has two guiding principles for equity. First, people of color and low-income communities must not be disproportionately impacted by climate hazards. Second, benefits from climate mitigation and preparedness efforts should be shared equitably among all people."	p. 12
Framework	DEVELOP A VALUES-BASED FRAMEWORK FOR CARBON OFFSETS	p. 79
Strategy	Resilient Boston	p. 15
Steps in planning process	GREENOVATE BOSTON	p. 22
Lessons learned	"RETROFITTING HISTORIC BUILDINGS › More than half of Boston's buildings were built before 1950. These older and historic structures are located throughout the city, and many are integral to Boston's character and vibrancy. › Retrofitting historic buildings reduces material consumption and emits less carbon than demolishing buildings and constructing new ones, even if the new structure is Zero Net Carbon (ZNC). Historic buildings have embodied carbon in them that is lost if a building or its components are demolished. They are often relatively energy efficient, with passive heating, cooling and lighting systems. › The City will develop pathways and guidelines for property owners to decarbonize and prepare their older buildings for the effects of climate change, while preserving the historic character of the structures."	p. 44

Best practices	"neighborhood plans for coastal resilience. Coastal resilience plans are complete for parts of East Boston and Charlestown, for South Boston, and are underway for Downtown, the North End, and Dorchester."	p. 19
Implementation	Steps, timeline, Implementers & Partners, Metrics for Success, Dedicated Resources (good example for transportation)	p. 63

Resilient Chicago[109]		
Equity	"EQUITY IMPACTS: Demonstrates how vulnerable Chicagoans will be affected by the proposed actions. Equity was selected as a main impact metric because of its ability to address the interconnected nature of race, economics, and geography."	p. 34
Framework	City Resilience Framework (CRF)	p. 11
Strategy	"WHAT IS URBAN RESILIENCE? A city's resilience is defined by the ability of its individuals, institutions, businesses, and systems within the community to survive, adapt, and grow despite the chronic stresses or acute shocks it experiences. A truly resilient city is not only expected to perform well in good times but also recover expediently after challenges."	p. 9
Steps in planning process	CHICAGO'S RESILIENCE STRATEGY DEVELOPMENT PROCESS	p.15-20
Lessons learned	"Pilot Community Area Assets— Additional data regarding the unique assets, challenges, and opportunities of each community area was examined, which led to the selection of Gage Park and Washington Heights as pilot communities for the below reasons: • Given the large number of young residents, high rates of unemployment, and the lack of nearby job training centers, opportunities exist to connect residents to jobs and to create training and educational programs to develop resident skill sets. Existing transportation and community assets could be leveraged to expand access to these opportunities. • Existing transit options could benefit from enhanced multimodal coordination to improve resident mobility. Many residents are located more than a half mile away from transit stations, presenting opportunities to create solutions to bridge first- and last-mile barriers. • The lessons learned in Gage Park and Washington Heights could be scaled to surrounding community areas, which are similar across many of the criteria and other characteristics examined."	p. 98
Best practices	"POTENTIAL KEY INDICATORS ① Reduction in city GHG emissions ② Reduction of overall carbon footprint of public and private buildings ③ Increase in rates of adoption of renewable energy ④ Dollar value of new investments in clean transportation and infrastructure ⑤ Amount of climate-focused legislation passed" – "EQUITY IMPACTS Individuals traditionally underrepresented in climate policy decision making such as women, racial and ethnic minorities, indigenous peoples, persons with disabilities, and socially and economically marginalized communities will be better included under charter commitments."	p. 101
Implementation	"Resilient Chicago presents a vision for the city – one where residents, neighborhoods, institutions, and government agencies are successfully connected to each other in the pursuit of economic opportunity, safety, equity, and sustainability. The strategy also describes a number of actions that will benefit residents, in particular those most vulnerable. The strategy represents the starting point for many of the actions found within its pages. The City, partner organizations, community leaders, and local residents must remain committed to its implementation towards building a more resilient Chicago."	p. 140

Philadelphia's Beat the Heat: Hunting Park[110]		
Equity	"Census data shows that low-income residents and residents of color are more likely to live in these hotter neighborhoods. This pattern of unequal exposure to risk tells us that climate change is not only a public health issue, but also an issue of racial and social equity. As climate projections show hotter days and nights to come, it is important to	p. 7

	work with residents to address the causes of these disparities and work towards sustainable solutions to support heat resiliency."	
Framework	Inclusive Climate Planning	p. 9
Strategy	Beat the Heat Toolkit	p. 3
Steps in planning process	Background Research, Hunting Park Heat Team, Beat the Heat Kick Off, Resident Beat the Heat Ambassadors, Hunting Park Heat Survey, Beat the Heat Mobile Station, Beat the Heat Design Workshop, Environmental Wellness Fair & Tree Giveaway, Heat Relief Network, Stakeholder Interviews	p. 23-25
Lessons learned	"STAYING COOL AND SAFE AT HOME: RECOMMENDATIONS"	p. 33-43
Best practices	List of Beat the Heat Partners	p. 26
Implementation	What is Next? Implementing the Hunting Park Heat Plan, Changing City Policies, launching a Hunting Park Heat Relief Network, Sharing Beat the Heat Toolkit, undertaking a Citywide Climate Adaptation Plan, hold a Heat Symposium in partnership with ecoWURD, Establish a City Heat website	p. 44-45

Detroit Sustainability Action Agenda[111]		
Equity	"Procedural Equity: Inclusive, accessible authentic engagement and representation in processes to develop or implement programs and policies."— "Distributional Equity: Programs and policies result in fair distribution of benefits and burdens across all segments of our community, prioritizing those with the highest need."— "Structural Equity: Decision-makers institutionalize accountability; decisions are made with a recognition of the historical, cultural and institutional dynamics and structures that have routinely advantaged privileged groups in society and resulted in chronic, cumulative disadvantage for others."— "Transgenerational Equity: Decisions consider generational impacts and do not result in unfair burdens on future generations."— "Racial Equity: Decisions are informed by the historic legacies and perpetuation of racism and disinvestment. Our work will focus on building new legacies of inclusion and racial equity."	p. 8
Framework	"All Detroiters thrive and prosper in an equitable, green city; have access to affordable, quality homes; live in clean, connected neighborhoods; and work together to steward resources."	p. 24
Strategy	Action Agenda	p. 27
Steps in planning process	Phase 1: Understand—Phase 2: Vision— Phase 3: Vison	p. 22
Lessons learned	Launch a digital inclusion program	p. 43
Best practices	Each action included a set of co-benefits. For example: #34 Create neighborhood scale, distributed green infrastructure projects green infrastructure included: Improved Public Health, Improved Water/Wastewater Quality & Management, and Improved Air Quality	p. 80
Implementation	Implementation table— for each action it includes: action title—lead— Implementation partners— timeframe— co-benefits—funding source	p.96-100

Sustainable DC 2.0[112]		
Equity	"Equity—along with environment and economy—is one of the three pillars of sustainability, but often the hardest to address. For that reason, equity must be the leading principle in Sustainable DC 2.0. It should be addressed as its own topic, but also incorporated throughout the plan."	p. 7
Framework	Sustainable DC is the framework to support other related DC plans	p. 16

Strategy	"piloted new community advisory board structures such as the Equity Advisory Group in Far Northeast Ward 7 and a 100% Renewable and Equitable Cities project"	p. 12
Steps in planning process	intensive community engagement, formal planning, plan release	p. 13-15
Lessons learned	Lead with community engagement—Representation matters—Equity is not equality—Leverage the working groups—Good planning takes time matters- Write everything down— Ask for help—Have fun!	p. 154
Best practices	"Each year, the Sustainable DC team will coordinate with each of the agencies responsible for implementing the Sustainable DC 2.0 plan for a status update on each of the actions. Using this information, the team will continue to put out an easy-to-read annual progress report every Earth Day consisting of updates on each plan section, an implementation rating for each action, and a detailed status update for each action."	p. 20
Implementation	"Create an Equity Impact Committee to guide equity in the development and implementation of the Sustainable DC 2.0 plan… Develop an Equity Impact Assessment Tool to help the District immediately address racial inequities related to sustainability"	p. 28
Providence's Climate Justice Plan[113]		
Equity	"Racial Equity: A condition in which the way someone is racialized does not determine their access, opportunities, treatment, or statistical outcomes in society. Achieving these results requires a proactive and ongoing commitment to anti-racist policies, practices, attitudes, and actions. When a person's outcome is not predicted by the color of their skin."	p. 85
Framework	"just transition" that includes a range of social interventions needed to secure workers' jobs and livelihoods and shift to sustainable production.	p. 59
Strategy	collaborative governance	p. 29
Steps in planning process	Their planning process is broken up into six steps. First, there was an agreement between the Racial and Environmental Justice Committee of Providence (REJC), City of Providence and consultants on a community-centered process. Second, they had community-led education and training in energy democracy. Third, there was peer-led interviews of frontline community members. Fourth, they designed solutions based on the priorities and concerns of frontline communities. Fifth, they reflected policies and actions back to community members via "Future Stories". Sixth, there was refinement and finalization of policies based on community feedback with the project team.	p.18 - 19
Lessons learned	A Racially Equitable & Just Providence	p. 20-21
Best practices	"Deep Democracy: A form of governance including direct and ongoing participation of community members in civic institutions and organizations, including equitable problem solving and capacity building for citizens and City workers."	p. 82
Implementation	"Establish Green Justice Zones in Frontline Communities… update the Code of Ordinances to include two members from the Racial and Environmental Justice Committee on the Environmental Sustainability Task Force and continue to build the ESTF's membership to be more representative of Providence's socioeconomic diversity…long-term climate resilience and adaptation plan: Partner with the REJC and other frontline communities to ensure those most impacted by the impacts of climate change are centered in the process of designing and implementing a plan to prepare the city for the impacts of climate change ..Measure and monitor the level of environmental burden and investments being made in each neighborhood... Incorporate racial equity goals as designated by the Just Providence Framework into City goals… Create a dedicated funding stream to support implementation… Advocate and support a state-level Climate Justice Working Group"	p. 34-36

Endnotes

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