Plan Survey	For	Joint City/County	Climate and Equity Task Force
MMSD Resilience	(In Action Steps below	The recommended <b>actions</b> can be	As projects are identified, <b>key performance indicators</b> should be created to demonstrate
Plan (BLACK TEXT)	[20 Actions (selected out of 30)]	implemented individually or integrated into	how effectively the project is addressing the action it is related to. The indicator should include a baseline a target/goal and a timeframe for when the target should be met
	see this column for Links to other	options for how to create stronger more	Because projects are likely to vary substantially evaluating the impacts of the Plan is
	PlansIdentified in this column at end	meaningful projects in the face of strained	particularly challenging.
https://www.mmsd.co	of document)	budgets. A stronger more resilient region can	
m/application/files/701		only be achieved if we work together. This	Indicators:
5/6719/9307/Resilienc	Green & Purple & Blue Text are items	strategy represents a starting point for a path	
e_Plan_2019_FINALv	added by First Editor DAD	forward, but the <i>real work will come from the</i>	Cost Avoidance
2.pdf	added by First Editor-DAR	conversations, policies and projects that take	This relates to the "return on investment" of a project by comparing the capital
	?Red are question marks?	become stronger, they can become resilient	expenditures invested in the project with the costs incurred if a risk materializes and nothing is done
MMSDRP		and the risks can be reduced—but only if we	Ouality of Life
MMSDM	15 Guiding Statements:	all work towards the same goal.	This relates to the improvement of specific social-based indicators such as housing,
			income, jobs, education, engagement, health, and life satisfaction.
	1. Strengthen Existing Urban Areas	SIX TOP RISKS p.27	Environment
	2. Achieve More Compact Development	Identified by 4 step process narrowed down	This relates to evaluating the actions by measuring indicators that track impacts on
	<i>A chieve a Robust Regional Transit</i>	from 12 to 6	natural systems such as land, air and water.
	System	FINANCIAL CONSTRAINTS	<b>Population</b> This relates to the number of people, or a subsection of the population that henefit from a
SEWRPC V 2050	5. Maintain Small Town Character	Budget constraints due to tax policy	narticular action or project
2000 people +	6. Develop an Expansive, Well-	(infrastructure investment, public workforce	
	<b>Connected Bicycle and Pedestrian</b>	shortage, etc.	
Visioning Activities:	Network		CCPR: J&E. Finding 4: A large scale climate transition offers a great opportunity to
	7. Preserve Natural Resources and	SOCIAL EQUITY	intervene into the economic structures that cause and reinforce racial disparities.
Telephone/Online Survey	8 Preserve Farmland	Social issue due to segregation: inequalities,	However such a transition will not naturally do so, and could also reproduce current
Mapping Important Places	9. Ensure that Goods Move Efficiently	crime and violence.	patterns of massive inequality. p. 29
Visual Preference Survey	10. Develop an Integrated, Multimodal	VIII NER ABII ITY OF CRITICAL	
SWOI Analysis	Transportation System	INFRASTRUCTURE	
& Transportation Goals	11. Provide a High-Quality Network of	Risk associated with aging infrastructure and	
=	Streets and Highways	infrastructure failure (pipes, buildings,	
15 Guiding Statements:	12. Be Environmentally Responsible	bridges, highways, communication networks,	
-	15. Make wise infrastructure	industrial areas, etc.), significant and rising	
	14. Work Together Toward Common	costs of maintenance and repair	
	Goals	CLIMATIC HAZARD	
	15. Prepare for Change in Travel	Climatic events (flooding, electrical storms	
	<b>Preferences and Technologies</b>	and tornadoes, cold naps) which impact	
		existing assets.	
		ABILITY TO ADAPT TO JOB MARKET	
		CHANGES	

		Risk of non-alignment of skills, competencies and demand. The need to maintain local skills and human capital (competitive workforce training and regional attractively) to an evolving labor market DISTRIBUTION OF PUBLIC SERVICES Ability of public services to meet basic needs (accessibility, equitability and effectiveness	
*BACKGOUND*	*******	*****	*******
<ul> <li>1.1 million people By 2035 / \ by 16% Slow growth As of 2019 18 of 28 \/</li> <li>28 municipalities VISION 2050 recognizes that a thriving future for Southeastern Wisconsin transcends the boundaries of its seven counties and 147 cities, villages, and towns: 57 towns, 61 Villages 29 Cities, 7 counties</li> <li>SEWRPC: 36% of the State's population 34% of the State's jobs</li> </ul>	Inequality       4 county highest BW segregation rate         HS diploma minority 4x < NMinority	Economic and Ed Disparities         Outlying:         • Limited housing         • Limited transportation         Less affluent:         • < neighborhood revitalization	Economic Challenges         • Long term job loss         • Slow recovery from recession         Economic success         • 25 firms in Fortune 5000         • Port of Milwaukee <b>CCPR:J&amp;E</b> Finding 3: Current efforts to address economic inequality and racial disparities in Milwaukee are not to scale, are not comprehensive and integrated, and are not directed to achieving community-wide outcome goals. P 27

	minority population than the white population. The Milwaukee area disparity in this regard is the largest of all the metro areas considered. CCPR J&E: Finding 1: There is a deep and persistent economic equity crisis in the Milwaukee Metro Area. P 24 CCPR. J&E Preliminary assessment of what could be done based on examples from other counties/municipalities and other empirical evidence <u>Finding 1</u> : Although some local and state-level climate transition plans include economic equity provisions, none that the Task Force reviewed include the level of structural interventions necessary to break down barriers to employment and dramatically improve community-wide equity		
	Finding 2: To dramatically improve economic equity in Milwaukee, the equity impacts of each policy decision must be built into every policy choice as fundamentally as greenhouse gas emissions reductions. P. 30 <u>Finding 3:</u> The most promising empirically- successful model for dramatically improving economic equity is in the field of child poverty. p. 31.		
Economic Health: Doughnut Economics: https://www.youtube. com/watch?v=Mkg2X MTWV4g	<ul> <li>Manufacturing = 16% of regional employment MKE region in top 50 US Metro areas for manufacturing <ul> <li>Jobs pay 31% more than average job in region</li> <li>Workforce dev, esp for minorities</li> </ul> </li> </ul>	<ul> <li>Challenges:</li> <li>2005 Levy limit on property tax for new construction</li> <li>Limit provision of critical services: police, schools, waste collection, water infrastructure, mass transit</li> <li>Areas with little land to develop or redevelop for new construction</li> </ul>	<ul> <li>Transportation</li> <li>Resident connection to employment, education, health care and other</li> <li>Population growth will require replacement and improvement</li> <li>Roadway condition and traffic flow critical for economy and safety</li> <li>VISION 2050: revenues will not be sufficient to reconstruct major roadways</li> </ul>
Climate change For most of human history, the Earth's atmosphere contained about 275 parts per million of	Projections:         Seasonal Impacts         • winter warmer more rain than snow (ice storms)         • 25% increase in large rainstorms         • most rain in spring and fall	<ul> <li>Seasonal changes impact transportation and above ground infrastructure</li> <li>Larger rainstorms create more</li> </ul>	Harbor: SCR CDR: p.29 NAACP pp. 435-436 Conclusion: The Urgent Need for Transformative Action

## Appendix A

carbon dioxide. More recently, the Earth's atmosphere has been found to contain	<ul> <li>more sewer overflows, more polluted stormwater, reduced air quality</li> </ul>	<ul><li>flooding</li><li>Existing grey infrastructure not designed for these</li></ul>	
Earth's atmosphere has been found to contain about 390 parts per million of carbon dioxideand that number is rising by about 2 parts per million each year	Most scientists (97%) agree that our carbon emissions are likely influencing the Earth's climate. This influence affects the Earth's rainfall patterns, temperature, plant and animal populations, and more. In an urban environment, the impacts of these changes can be magnified because of dense development and more complex infrastructure.	<ul> <li>designed for these</li> <li>SCR-CDR p 35</li> <li>5.10a Climate Crisis Impacts in Great Lakes Region</li> <li>The climate crisis impacts in the Great Lakes region has led to it being significantly warmer and wetter than other regions of the contiguous U.S. Impacts of these changes include:</li> <li>Chronic flooding, which degrades transportation, water supply, and building infrastructure;</li> <li>Increased periods of droughts and heavy precipitation, causing significant variability in Great Lakes water levels;</li> <li>Changes in the direction of seasonal wind patterns and "lake- effects" storm events;</li> <li>Shifts in animal and plant species vitality and biodiversity, particularly in those species dependent on cold climates;</li> <li>Increased incidents of harmful algal blooms (HABs)- which are proliferations of species of algae that decrease oxygen concentrations in the waters resulting in "dead zones" and may produce toxins that are harmful to humans and animals- resulting in increased incidents of fish kills;</li> <li>Greater proliferation of invasive species of plants, animals, fish, and microorganisms; and</li> <li>Adverse impacts to local and regional economies that are dependent on winter recreational and tourism income.</li> </ul>	<ul> <li>Circular Economy: https://media.sitra.fi/2018/06/12132041/the-circular-economy-a-powerful-force-for-climate-mitigation.pdf</li> <li>A more circular economy is indispensable for meeting global material needs without exceeding the available carbon budget. The Intergovernmental Panel on Climate Change has estimated a remaining 'carbon budget' for this century of around 800 billion tonnes (Gt) CO2. This is the amount of emissions that can be emitted until 2100 for a good chance of keeping warming below 2°C – with still less for the 'well below 2°C' target set by the Paris Agreement. This study estimates that, on current trends, materials production alone would result in more than 900 Gt of emissions. Energy efficiency and low carbon energy will help, but do not resolve this dilemma: emissions add up to 650 Gt even with rapid adoption. This is because so much carbon is either built into the products themselves and then released at their end of life (plastics), or is inherent to the process chemistry of production (steel, cement). For context, note that 2°C scenarios typically 'allocate' about 300 Gt CO2 to these sectors for the total world economy.</li> <li>Options to get to 300 Gt include a) aggressive scale-up of carbon capture and storage; b) the rapid introduction of radical process changes that are currently in early development stages; and c) reducing demand for primary materials through the range of circularity measures discussed above. (p.7)</li> <li>How can we achieve sustainability for people and planet? Rounding the pillars is about bending the silos into circles and building community. Transitioning to a circular economic opportunity. From rethinking our relationship to resources to developing new methods of collaboration and community-building, circular economy has the potential to serve as a catalyst for regenerative social, economic, and environmental progress. But where will these changes take place? What social and physical frames best support this fundamental transformation of citizen enga</li></ul>
		Climate-related chronic flooding in the Great	

		Lakes region is degrading water quality in	Resources for Emergency Climate Declaration
		urban centers by increasing pollution from	
		stormwater runoff and burdening the	https://docs.google.com/document/d/1dA3Jnx4xlrqrMrlylTdtD_WBynr_UuU-
		freshwater and wastewater treatment	<u>cjuZpyW/Gts/edit</u>
		systems. Elevated concentrations of lead,	
		other contaminants, E.Coli, and other	https://docs.google.com/document/d/1dA3Jnx4xlrqrMrlyITdtD_WBynr_UuU-
		pathogens are being found in urban drinking	<u>cjuZpyW7Gts/edit</u>
		water supplies. In rural areas, chronic	
		flooding degrades regional water quality by	https://www.theclimatemobilization.org/green-new-deal-climate-emergency-resolution
		increasing runoff from concentrated animal	
		feeding operations (CAFOs) such as hog and	
		chicken farms and heavily worked	
		agricultural soils containing farming-related	
		contaminants (herbicides, pesticides,	
		fertilizers, and others). Surface water	
		pollution from these non-point sources	
		include pathogens, sediments, nutrients, lead,	
		minerals, and many other contaminants.	
		Groundwater basins connected to the Great	
		Lakes are also receiving these contaminants	
		and spreading pollution impacts throughout	
		the watershed.	
		During the climate crisis, the rural areas of	
		the Great Lakes region is negatively affected	
		by lower water levels in the Great Lakes, and	
		their associated rivers and streams. In	
		periods of drought, the natural aquifers'	
		replenishment will be significantly reduced	
		while water usage will increase possibly	
		resulting in severe limitations on the	
		availability of potable water in this region.	
Stakeholder process:	Six risks (out of 12)	Plan review:	6 risks grouped (out of 200)
Stationard processi	Aging infrastructure		• Financial Constraints: Budget restraints due to tax policy (infrastructure
	Drinking water supply		investment public workforce shortage etc.)
	<ul> <li>Economic hazarda( ich availability</li> </ul>		<ul> <li>Social Equity: Social issues due to segregation: inequalities, crime and</li> </ul>
	<ul> <li>Economic nazarus( job availability,</li> <li>succession nlan)</li> </ul>		violence (Trauma)
	Election plan)		• Vulnershility of Critical Infrastructure: Bick associated with aging
	• Flooding extreme weather events		• Vulnerability of Critical infrastructure. Kisk associated with aging
	• Impacted quality of life from lack of		minastructure and minastructure failure, significant and fising costs of
	services and ///traffic		maintenance and repair
	Limited public financing –state levy		• Climatic nazard: Climatic event which impact existing assets (people?)
	limits		• Ability to Adapt to Job Market Changes: Risk of non-alignment of skills,
			competencies and demand. The need to maintain local skills and human
	NAACP pp. 25-58+		capital to an evolving labor market
	Module 1: A Community Coming Together		<ul> <li>Distribution of public services: Ability of public services to meet basic</li> </ul>
	<i>pp.</i> 77-152+		needs(access, equity, effective)

	Module 3: Developing a Community Climate Adaptation Plan pp. 153-169+ Module 4: Passing Climate Resilience Policies		Mitigation Adaptation Suffering
Vision 1	Environment	and	Society
Action Plan #	PLAN Response	RISK ASSESSMENT	STATUS/NEED
Make the Milwaukee region a better place to live by improving the public's participation in decision making and their environment	Improve dialogue with residents and key stakeholdersActions 1-4NAACP pp. 59-76Module 2: Building Social Cohesion NAACP pp. 170-198+Module 5: Communicating For ImpactNAACP pp. 199-212Module 6: Educating and Organizing for Climate Resilience NAACP pp. 214-223Module 7: Democracy and Governance NAACP pp. 331-345Module 12: Gender and LGBTQ Responsive Climate ResiliencePromote a safe and sustainable community Actions 5-7	Katherine Hayhoe: Conversations Global Weirding Bonding: Shared Values - seek Connection: Connect to Climate Change Inspire: Practical solutions Hope: We act and see others act Next generation needs Actions by individual, governments, business, NGOs Join with others TED Talk How to turn Climate Anxiety into Action. Not control outcomes/ Do what we can do Not fear and anxiety – bring out fear and seek what can we do	https://www.smartcitiesdive.com/news/3-ways-city-leaders-drive-behavior-change- meeting-of-the-minds/572608/         From Africa: https://africa.iclei.org/uncategorized/equipping-coastal-african-cities-with- the-tools-they-really-need-for-climate-change- planning/?utm_source=Confirmed+iNews+subscribers&utm_campaign=1ff37c475a- EMAIL_CAMPAIGN_2020_03_03_01_25_COPY_04&utm_medium=email&utm_term= 0_eb2a8ff6e2-1ff37c475a-119970177
Actions	Goal/ Plan Links	Risks Addressed	Objective/Status/ *Lead #Implement
Identify <u>Action 1</u> P 40.	Gaps that may exist in Current Partnerships And/Or Employment Sectors To Create More Meaningful and Intentional Relationships City of West Allis Five Year Strategic Plan: 2017 –2021. NAACP pp. https://ppi.communityadvocates.net/policy- projects/milwaukee-brighter-futures-	<ul> <li>SOCIAL EQUITY</li> <li>ABILITY TO ADAPT TO JOB MARKET CHANGES</li> <li>DISTRIBUTION OF PUBLIC SERVICES</li> </ul>	Leverage existing partnerships and identify new opportunities with stakeholders to create and expand meaningful employment and job training opportunities. <i>To be scaled up</i> *Municipalities *Non Profit/Business partner #1. Identify existing local initiatives/ partnerships #2. Establish intentional stakeholder partnerships and create a one-stop shop to fill gaps #3. Identify gaps that exist Downtown development /Central City Neighborhoods:
1 40.	initiative.html https://ppi.communityadvocates.net/policy_		https://urbanmilwaukee.com/2019/12/17/eyes-on-milwaukee-can-downtown-boost- poorer-areas/

	projects/alliance-for-wisconsin-youth.html		CCPR:
			Emissions: <u>Explore Creation of Ongoing University Student Projects</u>
	projects/alliance-for-wisconsin-youth.html		<ul> <li>CCPR: Emissions: Explore Creation of Ongoing University Student Projects</li> <li>CCPR: J&amp;E</li> <li>C. Short Term Projects/Programs</li> <li>As planning goes forward for the overall Climate Change and Economic Equity report, there are some existing efforts that could be supported now. The Task Force recommends increasing investment in the following areas and reducing barriers to programs that create paid hands-on training and employment opportunities: <ul> <li>Tree-planting projects (Ex. Branch Out Program, Ash Tree Replacement, City of Milwaukee Urban Forestry program, Decarceration and Reforestation program)</li> <li>Food programs, including addressing food waste (a climate change problem) and food insecurity (a jobs and equity problem).</li> <li>Greening efforts of Milwaukee Public Schools and playgrounds (MMSD).</li> <li>The Milwaukee Water Commons recommendations related to water quality and diversifying the workforce in water-related jobs.</li> <li>Programs that train people for existing jobs that address energy efficiency, and address barriers for attracting and retaining a diverse workforce. For example, MATC, in support of an industry effort to build a workforce for building maintenance, has worked with the industry to establish an apprenticeship program. The program is called Facility Maintenance Technician (FMT). This program started this spring and may be effective in dealing with an industry-wide shortage of maintenance workers. Studies have shown that properly maintaining facilities has a divect impact on energy use. Companies participating in the FMT program customize the course selection to their needs. Automated Building Systems (ABS) is a 2- semester program training for entry-level positions as building control technicians, a position in demand locally. Power Engineering trains people for operating boiler systems. It trains for the boiler operating license (several classes, one semester) as required by many operations, including MPS, and also has a one-yeer diploma.</li> <li>Passive</li></ul></li></ul>
			<i>done by:</i> <ul> <li><i>Commercial driver's license and drivers license reinstatement and obtainment.</i></li> </ul>
Actions	Goal/ Plan Links	Risks Addressed	Objective/Status/ *Lead #Implement
Create	A Regional Resilience Resource Center That Can Serve As A Space For Consolidated	SOCIAL EQUITY	Promote resilience at the local level and across the region by creating a resource center with consolidated information and services.

Appendix A

Action 2	Community Resources City of Milwaukee Climate Action Website: <u>https://city.milwaukee.gov/Climate-</u> <u>Action.htm#.XphzbC2ZPfZ</u>		<ul> <li>New Action</li> <li>*Municipalities</li> <li>#1. Create inventory of programs and events into a single space</li> <li>#2. Consolidate existing programs and events into a single space</li> <li>#3. Identify new needs and opportunities for information and services</li> <li>#4. Create community mapping plan</li> <li>#5. Advertise and promote events</li> </ul>
Actions	Goal/ Plan Links	Risks Addressed	Objective/Status/ *Lead #Implement
Engage Action 3	Stakeholders In Collaborative Decision Making And Implementation Of Watershed Restoration & Water Quality Plans SEWRPC Community Assistance Planning Report No. 316, A Restoration Plan for the Root River Watershed <b>RFMKE:</b> Water p21 88% of Target MMSD Biodiversity Plan. P 48 -52	<ul> <li>CLIMATIC HAZARD</li> <li>SOCIAL EQUITY</li> </ul>	<ul> <li>Engage stakeholders (both professional and public) in decision-making around the connections between land, water and people. <i>To Be Scaled Up Ongoing</i></li> <li>*Municipalities</li> <li>*Non-pro t/ Business Partner</li> <li>*MMSD</li> <li># Create engagement strategy and project milestones</li> <li># Ensure stakeholders understand the problem</li> <li># Present options and provide meaningful ways for decision making</li> <li># Incorporate multi-faceted quality of life components</li> <li><i>RFMKE pp 31 - 33</i></li> <li>Water Sustainability Challenges</li> <li>Climate change increases the risk of extreme storms, which places increased risk of flooding. It also increases the risk of basement back-ups or combined sewer overflows.</li> <li>Milwaukee's rivers cross watersheds and municipal boundaries. Cleaning up the rivers requires a multi-jurisdictional approach.</li> <li>Because of the Flint water crisis, the public is increasingly focused on lead service lines and plumbing on private property. Because the public system and private network of water distribution are connected, the public is looking for government solutions. The City is taking this challenge on based on the best available science, but the scale of the issue is large relative to available funding.</li> <li>Microplastics, PFAs, and other emerging pollutants in the water supply must be monitored and treated if they exceed unsafe levels.</li> <li>Public communication on the state of river water quality and efforts to restore</li> </ul>
Actions	Coal/ Plan Links	- Picks Addressed	Objective/Status/ *Lead #Implement
Improve	Local Efforts To Improve Communities By Replacing Grey Impervious Surfaces With Green Spaces	<ul> <li>KISKS Addressed</li> <li>SOCIAL EQUITY</li> <li>ABILITY TO ADAPT TO JOB MARKET CHANGES</li> <li>DISTRIBUTION OF PUBLIC</li> </ul>	Reduce stormwater runoff, energy costs, impacts of climate change, and the urban heat island effects. <i>To Be Scaled Up</i> *Municipalities
Action 4	City of Milwaukee Green Infrastructure Plan: https://city.milwaukee.gov/ImageLibrary/WCC/I	SERVICES • VULNERABILITY OF	*Non-profit/ Business Partner *MMSD

## Appendix A

	mages/GreenLots/FINALGIPLAN reduced_2.pdf         Home Grown: https://city.milwaukee.gov/homegrownmilwaukee. com#.Xph2Di2ZPfa         depave is a non-profit organization in Portland, Oregon         Reflo: Sustainable Water Solutions: GSCM         SCR-CDR         3.2aPrioritize Green Infrastructure         *Impervious pavement in cities exacerbates the urban heat island, leads to more localized flooding, disrupts natural systems, and generally reduces the overall quality of life for nearly all residents (i.e., humans, animals, and plants). As such, local communities should prioritize the installation and maintenance of green infrastructure (e.g., bioswales, rain gardens, green streets, parks and street trees, green roofs, green ways, and permeable pavements) to manage stormwater, mitigate heat, increase biodiversity, increase carbon dioxide removal, and enhance the overall quality of life.         NAACP pp. 359-369 Module 14: Land Use Planning and Management	CRITICAL INFRASTRUCTURE	<ul> <li># Identify and prioritize publicly owned parcels with substantial impervious space</li> <li># Increase funding that can support investments in green space and associated co-benefits</li> <li># Identify and eliminate duplication effort and waste</li> <li>#Implement projects that meet multiple triple bottom line objectives (i.e., social, environmental and economic)</li> <li># Share best management practices with other partners</li> <li><i>RFMKE: pp21-23</i></li> <li><i>Land and Urban Ecosystem Sustainability Challenges</i></li> <li>While fossil fuels have received significant attention for the role they play in climate change, less attention has been paid to their role in polluting the land. Defunct gas station sites that had leaking underground storage tanks make redeveloping many vacant sites more expensive and challenging.</li> <li><i>From 2015-2018, the State of Wisconsin has prioritized State subsidies to transform rural and ex-urban land for redevelopment over industrial redevelopment opportunities in existing urban areas. Targeting state subsidies to existing urban areas could spur quicker redevelopment and job creation while conserving our natural eco-systems.</i></li> <li><i>MWC BO see website (in process)</i></li> <li><i>CCPR: J&amp;E</i></li> <li><i>C. Short Term Projects/Programs</i></li> <li>As planning goes forward for the overall Climate Change and Economic Equity report, there are some existing efforts that could be supported now. The Task Force recommends increasing investment in the following areas and reducing barriers to programs that create paid hands-on training and employment opportunities:</li> <li>Tree-planting projects (Ex. Branch Out Program, Ash Tree Replacement, City of Milwaukee Urban Forestry program, Decarceration and Reforestation program)</li> <li>Greening efforts of Milwaukee Public Schools and playgrounds (MMSD).</li> </ul>
Actions	Goal/ Plan Links	Risks Addressed	Objective/Status/ *Lead #Implement
Access	Additional Healthy Food Programs So More Residents Have Access To Fresh, Locally- Sourced Foods Sixteenth Street Community Health Centers: Healthy Choices Program Core El Central Victory Garden Initiative We Got This! Alice's Garden Walnut Way MKE City Healthy Food Initiative (\$400,000)	•	Expand programs to promote access to local and healthy food. <i>To Be Scaled Up</i> *Municipalities *Non-profit/ Business Partner <i>RFMKE:</i> pp 14-16 <i>Food System Sustainability Challenges</i> • Urban gardening has many benefits and can provide supplemental fresh and healthy food during summer months. However, urban agriculture continues to face challenges with aggregating this food and reliably distributing it to large institutions year-round. Farming on disaggregated urban lots is also often not

Burleigh Street Corridor Project	cost-competitive with regional rural farms, which themselves often struggle to
Mt Calvary Community Gardens	be profitable.
Parklawn Assembly of God	• It is challenging to attract full and retain service grocery stores into lower
	income neighborhoods.
NAACP pp. 312-330	• Some urban agriculture organizations are beginning to shift their focus away
Module 11: Food Systems	from healthy food and toward industrial hemp and CBD oil.
	• The issue of healthy food access is being addressed by multiple departments
USDA	including the Health Department, Department of City Development, and ECO
	with limited resources. –With help from Milwaukee Food Council working with
https://urbanmilwaukee.com/pressrelease/botanic	Alderman Rainev
a-galactica-in-walkers-point-will-host-a-	
discussion-series-on-accessibility-in-wellness/	UN Development Goals withFood as central focus
	https://www.stockholmresilience.org/research/research-news/2016-06-14-how-food-
Food Systems: Wichita	connects-all-the-sdgs.html
https://www.wichita.gov/FoodPlan/Documents/F	CCPR: J&E. B. Recommendations for plan and Planning Process
oodSystemInfographic.pdf	Examine the jobs and equity potential of sectors the economic equity work group has
	tentatively identified as major drivers of a climate transition, and any others that experts
World View Agroecology:	can derive from research by other cities and states. Also assess whether and how under-
https://foodfirst.org/wp-	represented groups are getting training, hiring and advancement opportunities in these
content/uploads/2020/02/FoodFirstBackgrounder	sectors. These sectors tentatively include:
<u>AgroecologyTransformations_Feb21.pdf</u>	• Food Waste/Waste and Recycling. p. 33
	C. Short Term Projects/Programs
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	there are some existing efforts that could be supported now. The Task Force
	recommends increasing investment in the following areas and reducing barriers to
	programs that create paid hands-on training and employment opportunities:
	• Food programs, including addressing food waste (a climate change problem)
	and food insecurity (a jobs and equity problem).p. (34)
	CCPR: J&E
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	City of Milwaukee Urban Forestry program, Decarceration and
	<b>Reforestation program</b> )
	• Food programs, including addressing food waste (a climate change problem)
	and food insecurity (a jobs and equity problem).
	• Greening efforts of Milwaukee Public Schools and playgrounds (MMSD).
	• The Milwaukee Water Commons recommendations related to water quality
	and diversifying the workforce in water-related jobs.
	• Programs that train people for existing jobs that address energy efficiency,
	and address barriers for attracting and retaining a diverse workforce. For

			<ul> <li>example, MATC, in support of an industry effort to build a workforce for building maintenance, has worked with the industry to establish an apprenticeship program. The program is called Facility Maintenance Technician (FMT). This program started this spring and may be effective in dealing with an industry-wide shortage of maintenance workers. Studies have shown that properly maintaining facilities has a direct impact on energy use. Companies participating in the FMT program customize the course selection to their needs. Automated Building Systems (ABS) is a 2-semester program training for entry-level positions as building control technicians, a position in demand locally. Power Engineering trains people for operating boiler systems. It trains for the boiler operating license (several classes, one semester) as required by many operations, including MPS, and also has a one-year diploma.</li> <li>Passive housing models such as the New Jersey Passive House organization, where they are building energy-efficient and carbon-free homes in a similar climate to Milwaukee.</li> <li>There are also possible projects that could begin or be supported in the near term that will likely fit into a comprehensive plan and would significantly increase diversity of workforce in skilled trades needed for environmentally sustainable jobs. This can be done by:</li> <li>Urban agriculture such as the program at Vincent High School, including Vincent's salad sales entrepreneurial programs at the Brewers stadium.p. (35)</li> </ul>
Actions	Goal/ Plan Links	Risks Addressed	Objective/Status/ *Lead #Implement
Improve	Public Spaces, Community Health And Reduce Crime Through Environmental Design 30th Street Corridor flood relief project— Milwaukee, WI RFMKE p23 100% of Target Home Grown pp34- 35	<ul> <li>SOCIAL EQUITY</li> <li>VULNERABILITY OF CRITICAL INFRASTRUCTURE</li> </ul>	Improve the quality of life for residents and reduce crime by altering the physical design of public and private spaces. <i>New Action</i> *Municipalities # Identify priority areas based on population, available space, and planned expenditures # Create comprehensive plans that take into account all aspects—the public should be engaged at all stages of planning # Create and implement a phased approach for public space redevelopment # Amend land use regulations, such as zoning ordinances, to incorporate CPTED principles
Actions	Goal/ Plan Links	Risks Addressed	Objective/Status/ *Lead #Implement
Increase	Access To And Understanding Of Existing Resources By Connecting Residents To Available Community Resources	<ul> <li>DISTRIBUTION OF PUBLIC SERVICES</li> <li>SOCIAL EQUITY</li> </ul>	Increase awareness and use of community resources to improve the quality of life for vulnerable populations. New Action To Be Scaled Up

	* 16 * * 11/*
MKE Eco Neighborhoods:	* Municipalities
http://www.milwaukeeindependent.com/articles/li	#Identify resources offered for your community
ndsay-heights-honored-milwaukees-first-eco-	#Create communication platform to increase awareness
neighborhood-tour-designation/	#Promote use through integration with existing outreach efforts
ReFresh Milwaukee 2018 Progress Report:	CCPR: J&E. B. recommendation for Plan and Planning Process
https://city_milwaukee_gov/ImageI_ibrary/Groups/	Examine the jobs and equity notestial of sectors the economic equity work aroun has
cityGreenTeam/documents/2018/PeFresh2018Pr	Example in close and equilibrium of a climate transition, and any others that experience
cuyoreenteun/uocuments/2016/Kerresh201611	temativety mentited as major arvers of a cumate transition, and any others that experis
<u>ogresskeport.paj</u>	can derive from research by other cities and states. Also assess whether and now under-
	represented groups are getting training, hiring and advancement opportunities in these
	sectors. These sectors tentatively include:
Community	Energy Conservation/Efficiency and Retrofitting (including remediation of
Advocates:https://ppi.communityadvocates.net/po	lead paint and dust).
licy-projects/healthy-housing-initiative.html	• Renewable Energy (e.g. solar, wind).
	Water Conservation and Clean Water (including remediation of lead pipes
	that leach into water supply).
	<ul> <li>Transportation (the need for increased and dedicated funding for public</li> </ul>
	transit which with rectar for metric and using angles and acts
	nomical wavel
	• Food waste/waste and Kecycling.
	• Combining decarceration efforts with employment pathways in green energy,
	reforestation, green infrastructure and conservation efforts.
	• Include Career Pathways in the Green Economy as an officially (State)
	registered apprenticeship program. p. 33
	CCPR J&E
	C Short Term Projects/Programs
	As planning goes forward for the overall Climate Change and Economic Equity report
	there are some avioting efforts that could be cumout of mark there
	inter e un some existing efforts that could be supported now. The fusik force
	recommenas increasing investment in the jouowing areas and reducing barriers to
	programs that create paid hands-on training and employment opportunities:
	• Tree-planting projects (Ex. Branch Out Program, Ash Tree Replacement,
	City of Milwaukee Urban Forestry program, Decarceration and
	Reforestation program)
	<ul> <li>Food programs, including addressing food waste (a climate change problem)</li> </ul>
	and food insecurity (a jobs and equity problem).
	<ul> <li>Greening efforts of Milwaukee Public Schools and playerounds (MMSD).</li> </ul>
	The Milwaukee Water Commons recommendations related to water audity
	and diversifying the workforce in water-related is he
	Decorrect that the second converting on a state of the second of th
	<ul> <li>Frograms that train people for existing joos that datress energy efficiency, and address begins for attracting and activities a line such for the people of the second seco</li></ul>
	ana aaaress barriers for auracung and retaining a diverse workforce. For
	example, MAIC, in support of an industry effort to build a workforce for
	building maintenance, has worked with the industry to establish an
	apprenticeship program. The program is called Facility Maintenance
	Technician (FMT). This program started this spring and may be effective in
	dealing with an industry-wide shortage of maintenance workers. Studies

			<ul> <li>have shown that properly maintaining facilities has a direct impact on energy use. Companies participating in the FMT program customize the course selection to their needs. Automated Building Systems (ABS) is a 2-semester program training for entry-level positions as building control technicians, a position in demand locally. Power Engineering trains people for operating boiler systems. It trains for the boiler operating license (several classes, one semester) as required by many operations, including MPS, and also has a one-year diploma.</li> <li>Passive housing models such as the New Jersey Passive House organization, where they are building energy-efficient and carbon-free homes in a similar climate to Milwaukee.</li> <li>There are also possible projects that could begin or be supported in the near term that will likely fit into a comprehensive plan and would significantly increase diversity of workforce in skilled trades needed for environmentally sustainable jobs. This can be done by:</li> <li>Commercial driver's license and drivers license reinstatement and obtainment .p. (35)</li> </ul>
Actions	Goal/ Plan Links	Risks Addressed	Objective/Status/ *Lead #Implement
Expand <u>Action 8</u>	Coolar Fitter Entries         The Existing Litter Pickup Programs And Change Behaviors Through Targeted Communication Campaigns         Keep America Beautiful Keep Greater Milwaukee Beautiful Riverkeepers Plastic Free MKE         NAACP pp.408-422         Module 18: Waste Management	<ul> <li>DISTRIBUTION OF PUB SERVICES</li> <li>SOCIAL EQUITY</li> </ul>	LIC       Empower and educate residents in order to reduce the amount of litter in public spaces and on the street and take pride in their community.         To Be Scaled Up         #Create Adopt-A-Street program/         #Contract out litter pickup with workforce development agency         # Municipalities provide containers to households         # Cigarette butt campaign to reduce litter         #Promote Adopt a Drain         CCPR         Emissions: <u>Reduce Food Waste</u> Implement Commercial Recycling Inspections and Improved Residential Recycling

Vision 2	Economy	and	Society
Boost the region's economic vitality through innovative job creation and access to equal opportunities	NAACP pp. 224-237 Module 8: Economic Justice SEWRP: https://www.sewrpc.org/SEWRPCFiles/Commis sionFiles/CommitteeFiles/2013/2013-04-16- minutes-ejtf-att-01.pdf		<ul> <li>Health and Equity across sectors: https://www.changelabsolutions.org/sites/default/files/2019-04/Blueprint-For-Changemakers_FINAL_201904.pdf</li> <li>CCPR: J&amp;E. Below is a list of specific City and County equity programs and initiatives:</li> <li>ME2 Community Workforce Agreement.</li> <li>HOME GR/OWN and Walnut Way collaboration with national grants.</li> <li>HACM and Choice Neighborhoods.</li> <li>Promise Zones.</li> <li>City efforts on Healthy Food Access.</li> <li>City efforts to green Milwaukee Public Schools' playgrounds and schoolyards.</li> <li>New County Office of African American Affairs.</li> <li>County and City have declared racism a public health crisis.</li> <li>'One County' vision seeks to make Milwaukee County the healthiest in Wisconsin by addressing racial equity.</li> <li>Proposed ordinance commits County government to advancing racial equity and eliminating health disparities.</li> <li>City off Milwaukee Residents Preference Program.</li> <li>MMSD job training programs and local hiring initiatives.</li> <li>City off Milwaukee Residents Preference Program.</li> <li>MASSD inded outreach efforts to boost climate resilience through green infrastructure.</li> <li>MMSD finded outreach efforts to boost climate resilience through green infrastructure installations in the neighborhoods, among many others.</li> <li>CCPR: J&amp;E</li> <li>Challenges to overcome in order to meet the work group's goals</li> <li>Three are a number of challenges to meet these goals, including:</li> </ul>

			<ul> <li>training for entry-level positions as building control technicians, a position in demand locally. Power Engineering trains people for operating boiler systems. It trains for the boiler operating license (several classes, one semester) as required by many operations, including MPS, and also has a one-year diploma.</li> <li>Passive housing models such as the New Jersey Passive House organization, where they are building energy-efficient and carbon-free homes in a similar climate to Milwaukee.</li> </ul>
Actions	Goal/ Plan Links	Risks Addressed	Objective/Status/ *Lead #Implement
Launch Action 9	A Utilities Efficiency Program To Improve Low- Income Housing And Boost Employment -Milwaukee Energy Efficiency. CCPR (Me2)program aimed at financing energy saving improvements: https://city.milwaukee.gov/Me2/Homeowners#.Xp hyJS2ZPfZ Better Buildings Challenge: https://city.milwaukee.gov/bbc Milwaukee Shines: https://city.milwaukee.gov/MilwaukeeShines#.Xp hyXS2ZPfa Property Assessed Clean Energy (PACE): https://city.milwaukee.gov/bbc/services/PACE- Financing -TIN (Targeted Investment Neighborhood) program designed to sustain and increase owner- occupancy NAACP pp. 346-358+ Module 13: Housing	<ul> <li>ABILITY TO ADAPT TO JOB MARKET CHANGES</li> <li>SOCIAL EQUITY</li> <li>DISTRIBUTION OF PUBLIC SERVICES</li> </ul>	Create workforce development opportunities and improve low-income housing by creating and expanding training programs for under- and unemployed residents. New Action To Be Scaled Up *Municipalities # Steps for implementation will be identified with partners. <b>RFMKE:</b> pp17-19 Land and Urban Ecosystem Sustainability Challenges • Targeting state subsidies to existing urban areas could spur quicker redevelopment and job creation while conserving our natural eco-systems. CCPR Emissions: <u>Encourage Energy Efficiency Among Low-Income Households</u> <u>Strengthen Green Building Standards on City-Financed Projects</u> 1. PACE-financed projects 2. City-subsidized projects 3. New municipal buildings <b>CCPR: J&amp;E</b> C. Short Term Projects/Programs As planning goes forward for the overall Climate Change and Economic Equity report, there are some existing efforts that could be supported now. The Task Force recommends increasing investment in the following areas and reducing barriers to programs that create paid hands-on training and employment opportunities: • Programs that train people for existing jobs that address energy efficiency, and address barriers for attracting and retaining a diverse workforce. For example, MATC, in support of an industry effort to build a workforce for building maintenance, has worked with the industry to establish an apprenticeship program. The program is called Facility Maintenance Technician (FMT). This program started this spring and may be effective in dealing with an industry-wide shortage of maintenance workers. Studies

			<ul> <li>energy use. Companies participating in the FMT program customize the course selection to their needs. Automated Building Systems (ABS) is a 2-semester program training for entry-level positions as building control technicians, a position in demand locally. Power Engineering trains people for operating boiler systems. It trains for the boiler operating license (several classes, one semester) as required by many operations, including MPS, and also has a one-year diploma.</li> <li>Passive housing models such as the New Jersey Passive House organization, where they are building energy-efficient and carbon-free homes in a similar climate to Milwaukee.</li> <li>There are also possible projects that could begin or be supported in the near term that will likely fit into a comprehensive plan and would significantly increase diversity of workforce in skilled trades needed for environmentally sustainable jobs. This can be done by:</li> <li>Energy conservation retrofitting programs that employ local residents. Based on existing research, this activity has tremendous greenhouse gas reduction and employment impacts, if brought to scale.</li> <li>Enabling electrification, a key component of a green transition, by increasing the number of public EV charging stations and working to incentivize large scale apartment and condo buildings to develop EV charging capacity for their residents .p. (35)</li> </ul>
Actions	Goal/ Plan Links	Risks Addressed	Objective/Status/ *Lead #Implement
Create/Connect	Job Training / Shadowing Program With The Schools And Major Employers In The Region Milwaukee 7 Talent Partnership GROW HERE Campaign Illinois: http://blogs.edf.org/energyexchange/2019/05/30/i llinois-clean-energy-jobs-act-taps-power-of- energy-efficiency/ https://ppi.communityadvocates.net/policy- projects/milwaukee-transitional-jobs-project.html https://ppi.communityadvocates.net/policy- projects/smart-reentry.html	<ul> <li>ABILITY TO ADAPT TO JOB MARKET CHANGES</li> <li>SOCIAL EQUITY</li> <li>DISTRIBUTION OF PUBLIC SERVICES</li> </ul>	Identify opportunities to connect youth with companies to introduce them to a variety of jobs through hands-on job training and shadowing programs. New Action To Be Scaled Up *Municipalities *Non-pro t/ Business Partner #Identify existing programs and gaps #Create partnerships with schools and employers #Promote to schools and students

Actions	Goal/ Plan Links	Risks Addressed	Objective/Status/ *Lead #Implement
Develop Action 11	Entrepreneurship Opportunities With Direct Links To Water And Energy Technologies That Meet Future Job Needs <i>Municipal Strategic Plans:</i> -Grow Milwaukee's cluster of energy efficient and clean tech companies to create local jobs and exports (ReFresh Milwaukee Plan) -Advance efforts to plan for and accommodate spin-off businesses generated by the Research Park and educational institutions (Wauwatosa)	<ul> <li>ABILITY TO ADAPT TO JOB MARKET CHANGES</li> <li>VULNERABILITY OF CRITICAL INFRASTRUCTURE</li> </ul>	Support the emergence and reinforcement of entrepreneurship and innovation to adapt to market changes in the water and energy sectors. New Action To Be Scaled Up / Ongoing *Non-profit/ Business Partner #Identify the synergies between the water and energy sectors' stakeholders #Build a joint entrepreneurship program 4 based on the identified needs #Accompany and mentor startups # Develop internship programs Brain Drain? : https://www.wpr.org/sites/default/files/recommendations_on_alleviating_human_capital_f light_from_milwaukee_and_its_government_final_final_june_21_2019.pdf https://www.wpr.org/proposed-millennial-task-force-would-work-limit-milwaukee- brain-drain
Actions	Goal/ Plan Links	Risks Addressed	Objective/Status/ *Lead #Implement
Support Action 12	The Creation Of And Training For Jobs Related To Sustainability In Specific Industries And Trades GI: https://ngicp.org https://www.jff.org/what-we-do/ https://ppi.communityadvocates.net/policy- projects/healthy-workers-healthy-wisconsin.html MREA: Solar: https://www.growsolar.org https://www.midwestrenew.org/online-solar- training-for-businesses/	<ul> <li>ABILITY TO ADAPT TO JOB MARKET CHANGES</li> <li>SOCIAL EQUITY</li> </ul>	<ul> <li>Promote, adjust and create jobs related to sustainability.</li> <li>Ongoing <ul> <li>*Municipalities</li> <li>*Non-pro t/ Business Partner</li> </ul> </li> <li>*MMSD <ul> <li>#Partner with public agencies</li> <li>#Develop training and certification programs</li> <li>#Establish partnerships with private sector</li> <li>#Support creation and development of businesses that can supply workers</li> <li>#Develop policy that guides opportunities to impacted communities</li> </ul> </li> <li>CCPR: J&amp;E <ul> <li>B. Recommendations for Plan and Planning Process</li> <li>Aggregate basic economic data on the emerging green economy in Milwaukee, and project the growth of emerging sectors not yet substantially present in the local economy.</li> <li>Elements should include: <ul> <li>Identifying entry-level skill and credential requirements, as well as starting wages and potential for growth.</li> <li>Assessing current employment rates by race and geography.</li> <li>Identifying what has worked and not worked in current efforts to recruit, train, and employ workers of color.</li> <li>Assessing current hring, development and retention practices with an equity lens.</li> <li>Developing mechanisms for measuring progress over time, and reporting these</li> </ul> </li> </ul></li></ul>

			<ul> <li>outcomes at regular intervals to Milwaukee City and County officials, and the public.</li> <li>Examine the jobs and equity potential of sectors the economic equity work group has tentatively identified as major drivers of a climate transition, and any others that experts can derive from research by other cities and states. Also assess whether and how underrepresented groups are getting training, hiring and advancement opportunities in these sectors. These sectors tentatively include: <ul> <li>Energy Conservation/Efficiency and Retrofitting (including remediation of lead paint and dust).</li> <li>Renewable Energy (e.g. solar, wind).</li> <li>Water Conservation and Clean Water (including remediation of lead pipes that leach into water supply).</li> </ul> </li> <li>Transportation (the need for increased and dedicated funding for public transit, which mitigates air pollution from cars, creates good jobs, and gets people to work).</li> <li>Food Waste/Waste and Recycling.</li> <li>Combining decarceration efforts with employment pathways in green energy, reforestation, green infrastructure and conservation efforts.</li> <li>Include Career Pathways in the Green Economy as an officially (State) registered apprenticeship program. p.33</li> </ul>
Actions	Goal/ Plan Links	Risks Addressed	Objective/Status/ *Lead #Implement
Create	Pathways To Career Success For Young Men And Women Of Color Oakland, CA The City of Oakland is advancing the My Brother's Keeper Local Action Plan. As part of Oakland Promise, the city is going to launch Future Centers, which are college and career hubs on middle-school and high-school campuses. They will provide support to these students to develop college and career plans. Future Centers will also help connect students with financial aid, scholarships, and internships. The "Classroom2Careers" program will offer meaningful opportunities for youth to gain real- world internship experience. https://urbanmilwaukee.com/pressrelease/bradley -tech-high-school-to-kickoff-job-training- program-with_rehab.of.historic-galebrit.	<ul> <li>ABILITY TO ADAPT TO JOB MARKET CHANGES</li> <li>SOCIAL EQUITY</li> </ul>	Increase job opportunities for people of color to reduce social inequalities. <i>To Be Scaled Up</i> Region Non-profit/ Business Partner #Create mentor program to connect students to volunteer mentors from local businesses, organizations and associations #Develop professional skills like goal setting, communication and time management #Provide career exploration in partnership with local universities <i>RFMKE: pp 17-19</i> <i>A. Human Capital Sustainability Challenges</i> <i>Developing a consistent stream of green job opportunities for Milwaukee residents</i> <i>remains a challenge. As the City and Milwaukee County face long term fiscal</i> <i>challenges, employment opportunities in traditional green jobs in Forestry and Park</i> <i>Maintenance have retracted. Many environmental sustainability programs are funded</i> <i>through sporadic and short-term grants, which makes it difficult to build in enough</i> <i>time to both train a cohort of workers, directly employ them through a private sector</i> <i>employer, and allow them to deliver the grant requirements in a timely manner.</i>

	building/		WAASL
			<ul> <li>CCPR: J&amp;E</li> <li>B. Recommendations for Plan and Planning Process</li> <li>Strategize for improving equity in the current Milwaukee employment market and with current policy approaches. The goal would be to maximize the equity outcomes that are possible within current public systems and market relationships, and to evaluate what magnitude of equity outcomes is achievable absent more fundamental structural reforms. Considerations in developing such a plan include:</li> <li>Proposing specific goals for recruiting, training, hiring and retaining underrepresented groups in current and future green jobs.</li> <li>How to induce employers to institute multi-pronged approaches (since the problem is multifaceted) to develop diverse candidate pools while simultaneously building up racial literacy within their workforce to ensure shared language and practice regarding the attraction, selection, development and retention of historically excluded identities. p. 33</li> </ul>
Actions	Goal/ Plan Links	Risks Addressed	Objective/Status/ *Lead #Implement
Design <u>Action 14</u>	A Suite Of Inclusive Business Development Services To Help Entrepreneurs Of Color Gain Equal Footing In The Milwaukee Region's Economy The African American Chamber of Commerce of Wisconsin seeks to help grow and support African American-owned businesses by providing access to capital, education and advocacy through capacity building and strategic partnership. NAACP pp. 370-381 Module 15: Restorative/Criminal Justice	<ul> <li>ABILITY TO ADAPT TO JOB MARKET CHANGES</li> <li>SOCIAL EQUITY</li> </ul>	Create a diverse and thriving job base that supports communities of color. New Action *Region *Non-pro t/ Business Partner #Scale up existing disadvantaged business development programs (City of Milwaukee & MMSD already have programs) https://urbanmilwaukee.com/pressrelease/american-family-insurance-supports- milwaukee-revitalization-efforts-at-sherman-phoenix/ Downtown development /Central City Neighborhoods: https://urbanmilwaukee.com/2019/12/17/eyes-on-milwaukee-can-downtown-boom-boost- poorer-areas/
			CCPR: J&E: B. Recommendations for Plan and Planning Process Evaluate the potential of larger-scale structural interventions to leverage a climate transition to dramatically improve regional economic equity. This would include examining the value of market interventions, such as large-scale transitional jobs programs, for breaking down barriers to employment and creating a pipeline of green

			economy workers from Milwaukee's most disadvantaged communities. p. 33
Vision 3	Infrastructure	and	Environment
Adapt infrastructure to the challenges of the 21 <sup>st</sup> century			
Actions	Goal/ Plan Links	Risks Addressed	Objective/Status/ *Lead #Implement
Develop Action 15	And Implement Sustainable Practices Through Bids And Businesses Across The Region -Implement sustainable building practices and standards for development and major redevelopment (ReFresh Milwaukee Plan) -Improve the physical condition of deteriorating and blighted city, residential, and commercial buildings (ReFresh Milwaukee Plan) -Encourage green building practices for redevelopment of sites in the Village including practices that promote energy conservation, stormwater management, and improved air quality (Fox Point) <b>CCPR</b> p 13 "Both the City of Milwaukee and Milwaukee County also track their respective buildings' energy use, as well as municipal fleet fuel and transit fuel use."	<ul> <li>ABILITY TO ADAPT TO JOB MARKET CHANGES</li> <li>VULNERABILITY OF CRITICAL INFRASTRUCTURE</li> </ul>	<ul> <li>Integrate energy, waste, and sustainable material components into RFPs and/or bids. Ongoing</li> <li>*Municipalities</li> <li>*Non-profit/ Business Partner</li> <li>*MMSD</li> <li>#Steps for implementation will be identified with partners, such as: +Adopting green construction codes for commercial buildings</li> <li>+Improving the physical condition of deteriorating cities, including residential and commercial buildings</li> <li>+Encouraging green building practices for redevelopment of sites in the region</li> <li>+Introving the physical condition of deteriorating cities, including residential and commercial buildings</li> <li>+Encouraging green building practices for redevelopment of sites in the region</li> <li>+Integrating energy, waste, and sustainable material components into RFPs and/or bids (Envision)</li> <li><b>RFMKE:</b> pp 28-30</li> <li><b>Resource</b> Recovery Sustainability Challenges</li> <li>1,800+ students and 170 adults attended educational programs in 2018.</li> <li>In 2017, China implemented the "National Sword" policy which set strict contamination standards and restricted imports of recyclable materials. While Milwaukee remains committed to its robust recycling program, relying chieffy on domestic mills, market prices for recyclables have declined. Revenue from recyclables is expected to decrease in 2019.</li> <li>The Department of Public Works provides recycling collection for 1-4 unit households in the City of Milwaukee. Commercial facilities such as businesses and 5+ residential units are required by state law and Milwaukee ordinance to secure recycling services for their properties. However, as the Wisconsin Department of Natural Resources Responsible Unit (RU) for the City of Milwaukee, the Department of Public Works continues to receive reports of non-compliance at commercial properties and is responsible for oversight and enforcement.</li> <li>The Department of Public Works, through the Special Event Permit Office, offe</li></ul>

				<ul> <li>single-use plastic containers. Single use plastic containers and bags remain a common contaminant in the recycling stream and source of litter in Milwaukee's streets and waterways.</li> <li>CCPR: J&amp;E</li> <li><b>B.</b> Recommendations for Plan and Planning Process</li> <li>Strategize for improving equity in the current Milwaukee employment market and with current policy approaches. The goal would be to maximize the equity outcomes that are possible within current public systems and market relationships, and to evaluate what magnitude of equity outcomes is achievable absent more fundamental structural reforms. Considerations in developing such a plan include:</li> <li>Proposing specific goals for recruiting, training, hiring and retaining underrepresented groups in current and future green jobs.</li> <li>How to induce employers to institute multi-pronged approaches (since the problem is multifaceted) to develop diverse candidate pools while simultaneously building up racial literacy within their workforce to ensure shared language and practice regarding the attraction, selection, development and retention of historically excluded identities.</li> </ul>
Actions	Goal/ Plan Links	•	Risks Addressed	Objective/Status/ *Lead #Implement
Drive <u>Action 16</u>	A Regional Energy Efficiency Program Municipal Strategic Plans e.g.: ReFresh MKE: https://itmdapps.milwaukee.gov/citygov/refreshm ke/index.html -Improve residential and commercial energy efficiency in Milwaukee -Replace fossil fuel energy use with more clean renewable energy in City of Milwaukee facilities NAACP pp. 238-262 Module 9: Energy Systems MKES website Solar Information & Resources Midwest Renewable Energy Association (MREA) - Education We Energies - Information U.S Department of Energy - Renewable energy technology NABCEP (North American Board of Certified	•	VULNERABILITY OF CRITICAL INFRASTRUCTURE	<ul> <li>Improve energy efficiency and energy savings across the region. <i>To Be Scaled Up</i>         *Region: Midwest Energy Efficiency Alliance (MEEA)         #Steps for implementation will be identified with partners.         CCPR:         EMISSIONS: Short-Term Projects/Programs         The following activities could be accelerated in the next one to 2 years:         Utility-Scale Solar         Dialogue with We Energies on Shared Climate Goals         Maintain and expand ECO programs         RFMKE:         Building Sustainability Challenges         Many building codes, including the energy code, are established at the State level. Municipalities in Wisconsin are prohibited from passing building energy codes that are more stringent than the State of Wisconsin code.         Many of Milwaukee's older homes have large challenges. Leaking roofs or other basic structural problems often need to be addressed before adding energy efficiency and renewable energy features. Lead in older homes' service lines, internal plumbing, and in paint has become an increasing concern for the public since the Flint, MI water crisis.     </li> </ul>

	Energy Practioners) - "Gold Standard" for renewable energy certification Site Assessments NABCEP List of Certified Solar Professionals Permits Milwaukee Shines Solar Electric Permitting ProcessGuide City of Milwaukee Permit Page Financing Milwaukee Shines Solar Financing with Summit Credit Union Me2 Commercial PACE Financing Installers Focus on Energy - list of installers NABCEP (North American Board of Certified	<ul> <li>Many cities are committing to ambitious renewable energy goals, in some cases aiming for 100% renewable energy. Cities like Vancouver, British Columbia have historically used large amounts of hydro power as their primary renewable energy resource. Cities in California benefit from progressive state policies, such as Community Choice Aggregation, that allow municipalities to directly procure large scale renewables. Wisconsin has a highly regulated utility electricity market, with investor-owned utilities providing the majority of energy infrastructure. Within this policy environment, municipalities have limited options for achieving renewable energy goals. Wisconsin has large historic investments in fossil fuel power plants and a reliance on natural gas to heat our homes and buildings. Because of these challenges, ECO seeks to first achieve the existing 25% renewable energy goal before establishing more aggressive targets.</li> <li>The City also has challenges to establishing a meaningful baseline carbon inventory in the City, such as lack of access to community wide utility energy data.</li> </ul>
	Energy Pracitioners) - "Gold Standard" for renewable energy certification Incentives Focus on Energy - Incentives DSIREUSA (Database of State Incentives for Renewables and Efficiency) - List of incentives	Using Public Trust Doctrine to Move Utilities to use Renewables: (see pp 212-221 on Wisconsin) https://repository.law.umich.edu/cgi/viewcontent.cgi?article=1046&context=mjeal
	Interconnection         We Energies - Interconnection information         SEWRPC:         https://www.sewrpc.org/SEWRPCFiles/Commissi         onFiles/CommitteeFiles/2014/2014-10-07-         minutes-att-03-ejtf.pdf	CCPR: J&E B. Recommendations for Plan and Planning Process Examine the jobs and equity potential of sectors the economic equity work group has tentatively identified as major drivers of a climate transition, and any others that experts can derive from research by other cities and states. Also assess whether and how under- represented groups are getting training, hiring and advancement opportunities in these sectors. These sectors tentatively include: • Energy Conservation/Efficiency and Retrofitting (including remediation of lead paint and dust)
County:	CCPR p.13 Since 2007, Milwaukee County government has launched a number of initiatives to address climate change, including: Creating an environmental and conservation "Green Print" initiative	<ul> <li>Renewable Energy (e.g. solar, wind).</li> <li>Combining decarecration efforts with employment pathways in green energy, reforestation, green infrastructure and conservation efforts.</li> <li>Include Career Pathways in the Green Economy as an officially (State) registered apprenticeship program.</li> </ul>
	<ul> <li>for County government operations (File No. 07-111).</li> <li>Converting the County's fleet of transit buses to ultra-low sulfur diesel fuel, increasing fuel economy and reducing GHG emissions.</li> </ul>	C. Short Term Projects and Goals There are also possible projects that could begin or be supported in the near term that will likely fit into a comprehensive plan and would significantly increase diversity of workforce in skilled trades needed for environmentally sustainable jobs. This can be done by:

	<ul> <li>Adopting a goal to reduce energy use in County government buildings 20% versus 2014.</li> <li>Participating in the City of Milwaukee's Better Building Challenge program (two County government buildings enrolled, representing over 400,000 square feet).</li> <li>Establishing a Property Assessed Clean Energy (PACE) program that enables commercial property owners in Milwaukee County to obtain affordable, long-term loans for energy efficiency, renewable energy and water conservation improvements – at no cost to taxpayers.</li> <li>Establishing that County government will support the principles and GHG emissions reduction targets of the Paris Climate Agreement (File No. 17-506) to keep global temperature increases below 2°C (3.8°F).</li> <li>Co-creating the Milwaukee City- County Joint Task Force on Climate and Economic Equity to develop a roadmap of governmental actions to accomplish community greenhouse</li> </ul>	•	Energy conservation retrofitting programs that employ local residents. Based on existing research, this activity has tremendous greenhouse gas reduction and employment impacts, if brought to scale. Enabling electrification, a key component of a green transition, by increasing the number of public EV charging stations and working to incentivize large scale apartment and condo buildings to develop EV charging capacity for their residents.
WE ENERGIES	accomplish community greenhouse gas reduction goals (File No. 19-582). CCPR p. 14-15 The operations of We Energies have a significant climate impact for Milwaukee, as We Energies is a regulated monopoly, providing all energy for electricity, as well as the heating and cooling of buildings, in the entire City and County. The utility has assisted the City in making progress on its sustainability initiatives in a number of areas. For example, the utility has: Converted the Valley Power Plant from coal to natural gas, thereby cutting carbon dioxide emissions from that power plant in half.		

	<ul> <li>Responded to the City's request for new renewable energy options [Solar Now and Dedicated Renewable Energy Resource (DRER) pilot programs].</li> <li>Closed the coal-fired Pleasant Prairie Power Plant in Kenosha County.</li> <li>Continued to participate in the Focus on Energy program to help fund energy efficiency and renewable energy investments for residents, businesses and institutions statewide, as required by law.</li> <li>Proposed measures to assist electric vehicle owners with the cost of installing charging infrastructure for home vehicle charging, as well as to offer a reduced rate for nighttime vehicle charging [though those measures were not approved by the Wisconsin Public Service Commission (PSC)].</li> </ul>			<ul> <li>CCPR. p. 15</li> <li>" Despite these well-intentioned efforts, a significantly greater level of collaboration and environmental stewardship will be required of the utility for Milwaukee's climate action goals to be met. Climate mitigation efforts have been hampered in the past by the actions of the utility, including:</li> <li>Its refusal to provide community greenhouse gas (GHG) data similar to what Xcel Energy provides to cities',</li> <li>Its construction of the Elm Road coal plant in Oak Creek that could be emitting GHG gasses for decades to come (despite significant opposition from environmental and local community organizations),</li> <li>Its proposal of a tax on homeowners with rooftop solar (although it was ultimately dropped in the face of community opposition),</li> <li>Its obstruction of the City's plans to install co-owned rooftop solar facilities through a third-party vendor, their low net-metering rates which make it difficult for rooftop solar owners to obtain a return on their investment, and their successful advocacy for a State law that shifted the \$10 million utility relocation cost associated with the new Milwaukee streetcar system (The Hop) from the utility to the City.</li> <li>Accordingly, Task Force recommendations must address strategies for bringing climate impact to the forefront with respect to the future operational decisions of We Energies."</li> </ul>
Actions	Goal/ Plan Links	• Ris	sks Addressed	Objective/Status/ *Lead #Implement
Drive Action 16b https://itdpdotorg.wpengine. com/wp- content/uploads/2014/09/A- Global-High-Shift- Scenario_V2_WEB.pdf United States: Currently the world leader in urban	A Regional Transportation System SCR-CDR 3.2b Limit Sprawl and Invest in Complete Streets In the United States, transportation emissions are rapidly growing and are expected to become the largest source of emissions in the near future. Moreover, a large amount of infrastructure within cities is dedicated to cars (i.e., parking garages, roads, street parking). 1. By limiting sprawl, investing in density that is right sized for a given location and close to transit corridors (see Sierra Club's Urban Infill Policy), and by encouraging	<ul> <li>ABII MAH</li> <li>SOC</li> <li>DIST SER</li> </ul>	LITY TO ADAPT TO JOB RKET CHANGES TAL EQUITY TRIBUTION OF PUBLIC VICES	Improve accessibility and efficiency of mass transportation and dis incentivizing the automobile To Be Scaled Up *Region: SEWRPC given Teeth: *County *Municipal #Lobby the state to create Regional Transportation Authorities #Steps for implementation will be identified with partners. +Eight states are providing incentives for zero emitting freight trucks, transit buses and school buses; introducing electric shuttle and urban buses into transit fleets; allocating Volkswagen settlement funds toward medium- and heavy-duty vehicle electrification; and piloting innovative approaches such as vehicle-to-grid (V2G) electric school buses. https://ww2.arb.ca.gov/es/news/california-and-seven-states-commit-faster-transition-zero- emission-trucks-and-buses

passenger transportation	alternative forms of transit, local		RFMKE: Mobility pp 24-27
CO2 emissions, with 670	communities should repurpose some		1. Mobility Sustainability Challenges
megatons annually, the U.S.	land currently reserved for vehicles,		• The single-occupant automobile remains a predominant form of transportation in the
is projected to lower these	such as parking lots, and turn it into		Milwaukee metropolitan area. Relatively low commute times across the metropolitan area
emissions to 560 megatons	affordable housing, stormwater		reduce the demand for public investments in transit and other means of transportation.
by 2050 because	retention features, green		• The Milwaukee County Transit system also faces persistent fiscal challenges that create
of slower population growth,	infrastructure, community spaces, or		pressure to reduce services.
higher fuel efficiencies, and	other features that will help enhance		• The State of Wisconsin's transportation budgets are also heavily skewed toward road
the decline in driving	community resilience to a changing		construction in support of automobile travel. State economic development subsidies for
per person that has already	climate.		manufacturing in exurban areas reduces connections between employers and workers
started as people move back	In addition, local communities should embrace a		manufacturing in exarbar areas reduces connections between emptoyers and workers.
to cities. But this pace can be	complete streets approach for all existing and to-		AIRPORT? PHASE Three Emissions: https://vimeo.com/370631640
sharply accelerated with	be-developed roads, thereby ensuring they are		MRI ORI : THASE THREE Emissions. <u>https://www.com/579051049</u>
more sustainable	safe for all users especially pedestrians		Despite the dealing in transit compiles included in the ECTP there are some
transportation dropping by	bicyclists and transit riders of all ages and		Despite the decline in transit service included in the FCTT, there are some
half to 280 megatons under	abilities Complete streets should also integrate		recommendations from vision 2000 that could improve the experience of riang transit
the High Shift scenario. For	areen infrastructure principles to help mitigate		in the Region without increasing the net cost of operating the transit system, making the
the U.S. in particular this	heat and flooding impacts associated with a		services that remain slightly faster and more attractive to residents. Those
seenario includes not only	changing climate		recommendations are included in the FCIP, and are listed below. More detail on these
mode shifting but also	changing cumate.		recommendations can be found in Chapter 1 of this volume.
considerable reductions in	NAACP np.396-407+		• < Recommendation 2.6: Implement "transit- rst" designs on urban streets
urban kilometers of travel	Module 17. Transportation Systems		• < Recommendation 2.7: Enhance stops, stations, and park-ride facilities
per person through urban	noune in inasponation systems		with state-of-the-art amenities
recentralization and	https://thecitvfix.com/blog/walking-talk-can-		• < Recommendation 2.8: Accommodate bicycles on all xed-route transit
substitution of	learn-germanys-new-pedestrian-policy-		vehicles
telecommunications for	framework-2-claudia-adriazola-steil-alejandro-		• A Pasammandation 2.0. Implament programs to improve georges to suburban
travel.	schwedhelm/		• < Recommendation 2.9. Implement programs to improve access to suburban
	https://www.traffictechnologytoday.com/news/mu		• < Recommendation 2.10: Provide information to promote transit use
	ltimodal-systems/new-study-shows-new-mobility-		• < Recommendation 2.12: Consider implementation of proof-of-
	services-are-only-sustainable-when-combined-		payment on heavily-used transit services
	with-public-transportation.html		SEWPRC
			Workplace: https://www.sewrpc.org/SEWRPC/Transportation/Workforce-Mobility-
	Equity NEPA and EJ		<u>Team.htm</u>
	https://vimeo.com/392754570		https://www.sewrpc.org/SEWRPCFiles/CommissionFiles/CommitteeFiles/2015/2015-09-
			29-minutes.ejtf-att-03.pdf
	BETTER BUSSES BETTER CITIES:	BETTER BUSSES BETTER CITIES:	
	Everett, a largely working-class municipality of	The tactical approach used in greater Boston	BLOG on WI and Mass Transit Issues: <u>https://usa.streetsblog.org/2019/12/19/on-</u>
	46,000 residents, was the first to try it, in	(and, increasingly, elsewhere) can help create	wisconsin-badger-state-slowly-improving-transit/
	December 2016, Starting in 2017, the Barr	a friendlier politics as well. Tactical projects	
	Foundation, a private foundation, helped staff in	can begin after short outreach and data	Encourage employers to invest in public transit and active transportation
	Cambridge, Watertown, and Arlington follow suit	collection periods. Municipal staff in	WAASL
	and helped Everett further enhance its bus lane	Cambridge, Watertown, and Arlington took	
	Somerville launched a pilot lane in 2017 and	just a few months to meet with stakeholders	http://www.busadvocates.org/articles/fares/CRANES_FFT_KEBLOWSKIarticle_v2019
	Boston ran a month-long test in spring 2018	In Everett, the process was even more	12.pdf?fbclid=IwAR3aEMpz9hJepW9nanPnUFAt3 3Iha68X50YwrBCXzcvT3GD9V
	testing out a hus lane in its Roslindale	abbreviated	wIhHkHJ98
	testing out a bus faite in its Rosinidate	abbieviated.	

	neighborhood to speed up a route that connected	"The project was the process," said Jay	CUR
	to the Orange Line subway.	Monty, Everett's city planner. "We know that	
	Universally, the pilots proved popular. The lanes	10,000 people a day ride the bus down	
	in Boston, Arlington, Somerville, and Everett	Broadway [where Everett put its pilot bus	T4America: Green New Deal for Transportation
	have all been made permanent. (As of June 2019,	lane], and that it's half the mode share during	http://t4america.org/wp-content/uploads/2020/03/20.03_GND-Transit_use_v4.pdf
	Cambridge and Watertown had not decided	certain times of day," he said. "We don't	
	whether to make permanent their pilot, which	need much more than that to say that justifies	
	involved both municipalities.)	taking parking and prioritizing transit." <sup>24</sup>	CCPR:
	Why did these work? For one, the projects done	The "pop-ups" also immediately	Emissions: Increase Efficiency of City Vehicle Fleet
	by the municipalities outside Boston had ironclad	demonstrated benefits for thousands of	Expand Electric Vehicle Infrastructure and Resources
	backing from local leaders. By 2017, Barr had	people and built enthusiasm that planners	Increase Ridership on County Transit Buses
	been advocating for BRT for several years. Mary	used to make the case for a permanent	4. Evaluate MCTS in terms of Operational Efficiency and Access Equity, using a tool such
	Skelton Roberts, the co-director of Barr's climate	project. Using data from the Waze traffic	as this: <u>A Comprehensive Tool for Transit Performance Evaluation: Operational</u>
	program, and Lisa Jacobson, the mobility	app, Arlington planners found that their pop-	Efficiency and Access Equity
	program officer, explained to me that the	up bus lane did slow down car traffic, for 1	
	foundation had issued reports, held public events	week; congestion returned to normal after	CCPR: J&R
	and design competitions, and even taken local	drivers got used to the lane. <sup>25</sup> Bus travel	Examine the jobs and equity potential of sectors the economic equity work group has
	officials to experience BRT projects in Mexico	times in the corridor got 40 percent less	tentatively identified as major drivers of a climate transition, and any others that experts
	City.	variable, saving riders 5 minutes on an	can derive from research by other cities and states. Also assess whether and how under-
	Even after all that, the reformers working to bring	average trip and 10 minutes on a bad trip.	represented groups are getting training, hiring and advancement opportunities in these
	bus priority to the region perceived little	Ninety-five percent of riders surveyed at bus	sectors. These sectors tentatively include:
	enthusiasm from the city of Boston. An	stops said the lane should be made	• Transportation (the need for increased and dedicated funding for public
	application-based competitive process, then,	permanent. Surveyors heard reactions like,	transit, which mitigates air pollution from cars, creates good jobs, and gets
	allowed them to suss out which municipalities	"All the stress I normally feel about getting	people to work). p. 33
	might be interested in trying something. "We	on a bus that is immediately clogged in	
	said, should we be looking at the coalition of the	congestion went away."	
	willing ??" said Skelton Roberts.	A tactical approach also helps when	
	Second, Barr gave the winning municipalities	advocacy groups have to push local	
	enough planning, public outreach, and	governments over the finish line.	
	communications and design assistance to	P 55	
	message the project effectively. This support		
	gave them more ability to reach out to		
	constituents before the pilots launched, document		
	the success of the pilots as they happened, and		
	launch the pilots with eye-catching designs that		
	helped change the public narrative around buses.		
	P 54		
	WE Enousies from CCDD = 15		
	wE Energies from CCPK p.15:		
	Sponsorea expandea Milwaukee		
	Streetcar services during the 2020		
	Democratic National Convention with		
	a \$100,000 contribution.		
Actions	Goal/Plan Links	- Risks Addressed	Objective/Status/ *Lead #Implement
Actions			

Assess	The Reliability Of Critical Infrastructure By	FINANCIAL CONSTRAINTS     CLINICATION CONSTRAINTS	Measure, understand and monitor the state of infrastructure.
	Performing A Criticality Analysis	CLIMATIC HAZARD     VUU NEP APILITY OF	Ongoing *Municipalities
Action 17		CRITICAL INFRASTRUCTURE	*Non-profit/ Business Partner
	NAACP pp. 263-311+		*MMSD
	Module 10: Emergency Management		Utilize MMSD-developed dashboards as a template to allow municipalities to assess and visualize source infrastructure investment needs
SEE:	One definition of resilient infrastructure is "the		#Leverage tool developed by regional agency for municipal benefits
	infrastructure's ability to continue to provide		#Provide understanding of regional investment needs for sewer infrastructure
CCPR and	critical services efficiently following a disruptive		#Pilot first step in developing a regional approach to manage infrastructure needs
	event" (Sandia National Laboratories, 2014, p.		
Verles on a bility.	1). In the United States, for example, this understanding of resilient infrastructure is		
vuinerability	commonly referred to in relation to concerns		CCPR:
Assessment	with national and "homeland security" (U.S.		• The City must obtain a community greenhouse gas (GHG) inventory that will
Matrix	Department of Homeland Security, 2013).		serve as a baseline against which to measure progress towards the City's
Re. CAP	There are arguably inree key principles in relation to this understanding of infrastructural		adopted GHG reduction goals. • Following the creation of the GHG inventory either a firm should be hired or
	resilience:		City and County sustainability staff should be expanded, to create a narrative
	• When one element of a network fails,		format of the GHG Inventory that is clear and understandable to the general
	the total system should be protected;		public, using the City of Chicago GHG Inventory Report as an example <sup>ii</sup> .
	• When the total system fails, critical		<ul> <li>In addition to completing the GHG Inventory, there should be continued efforts toward the development of a Milwaukee Climate and Equity Action Plan</li> </ul>
	individual elements of the system		<ul> <li>Extend the timeframe for work of the City-County Task Force on Climate and</li> </ul>
	snoula be protectea; and		Economic Equity for additional planning, and add academic, business,
	<ul> <li>where failure nappens, it should be a "safe-failure" (meaning that failure</li> </ul>		community and utility members.
	should not result in catastrophe as		Comply with reporting requirements of the Compact of Mayors and Global     Covenant of Mayors
	may happen when a levee breaks		<ul> <li>Identify methods of creating a "decision forcing capacity" (i.e. policy triggers)</li> </ul>
	during a flood or the single source of		and process, if emission and economic targets are not met).
	There is growing attention to the technical		Add additional climate action items in Milwaukee's Legislative package to
	capabilities required to achieve this by applying		advocate to the state legislature and other relevant agencies on matters such as
	concepts of redundancy, coupling, and		funding
	decoupling. UTM n60		<ul> <li>Systematically reach out to all other Milwaukee County municipalities to</li> </ul>
	0111 p0)		encourage them to engage in climate action planning, and to coordinate
			planning and implementation with the City and each other.
			• Strategically assemble Climate Action Teams at the City and County levels consisting of appropriate representatives from City and County departments to
			assist with staff education, data collection, operational documentation, long-
			term plan implementation and monitoring, and other critical functions. For
			example, while the City already has an "Energy Reduction Team" to support
			could focus on collaboration between the Department of Public Works
			Department of City Development, and ECO on matter relating to urban
			design. The Climate Action Teams should identify climate strategies that also

				increase workforce development opportunities that address Milwaukee's equity challenges.
Actions	Goal/ Plan Links	• I	Risks Addressed	Objective/Status/ *Lead #Implement
Establish <u>Action 18</u>	A Policy Review And Response Mechanism Milwaukee region: This action is inspired by the collaborative strategy developed in "Integrated Assessment on Water Level Variability and Coastal Bluffs and Shores, Northern Milwaukee County and Southern Ozaukee, Wisconsin."		CLIMATIC HAZARD VULNERABILITY OF CRITICAL INFRASTRUCTURE	Allow communities and organizations to be flexible and respond to changes in policy needs, to adapt to changing social, environmental and economic conditions. Ongoing *Municipalities *Non-profit/ Business Partner *MMSD #Steps for implementation will be identified with partners. CCPR Emissions: <u>Add Climate Action and Equity as goals across government agencies</u> The City should implement a "Climate Action Team" that includes the Department of Public Works, Department of City Development, Environmental Collaboration Office, and other agencies to coordinate transportation and urban planning around new, lower-carbon models.
Actions	Goal/ Plan Links	• I	Risks Addressed	Objective/Status/ *Lead #Implement
Increase <u>Action 19</u>	Green Infrastructure In The Region City of Milwaukee Green Infrastructure Plan: https://city.milwaukee.gov/ImageLibrary/WCC/I mages/GreenLots/FINALGIPLAN reduced_2.pdf Fresh Coast Resource Center is an ambitious resource center with a goal of increasing GI implementation by providing resources and support to stakeholders. www.freshcoastguardians.com Reflo: Sustainable Water Solutions Clean Wisconsin Groundworks		CLIMATIC HAZARD VULNERABILITY OF CRITICAL INFRASTRUCTURE	Reduce the vulnerability of sewerage infrastructure while providing social, economic and environmental benefits.         To Be Scaled Up         *Region         *Non Profits         *MMSD         #Communicate stormwater runoff issues and discuss the solutions         #Engage the public and co-design the solution         #Involve the public in implementation         #Raise awareness around new neighborhood features         #Identify best practices for green infrastructure, including funding sources, and substantially scale up implementation         CCPR: J&E         C. Short Term Projects/Programs         As planning goes forward for the overall Climate Change and Economic Equity report, there are some existing efforts that could be supported now. The Task Force recommends increasing investment in the following areas and reducing barriers to programs that create paid hands-on training and employment opportunities:         • Tree-planting projects (Ex. Branch Out Program, Ash Tree Replacement, City of Milwaukee Urban Forestry program, Decarceration and Reforestation program)         • Greening efforts of Milwaukee Public Schools and playgrounds (MMSD).         • The Milwaukee Water Commons recommendations related to water quality and diversifying the workforce in water-related jobs. p. (34)

			<ul> <li>There are also possible projects that could begin or be supported in the near term that will likely fit into a comprehensive plan and would significantly increase diversity of workforce in skilled trades needed for environmentally sustainable jobs. This can be done by:</li> <li>Combining decarceration efforts with reforestation and conservation efforts along the lines of Civil Conservation Corps models: With the impeding extinction of key canopy species such as ash trees and following multiple years of divestment in natural areas, it is proposed that paid, hands-on training efforts intentionally include soon-to-be returning citizens in greeninfrastructure installation and maintenance, engage under and unemployed community members in water treatment career pathways (MMSD, Walnut Way, Groundwork MKE, Cream City Conservation Corps, DNR, County Parks, WI Fast Forward, City of Milwaukee Forestry, MATC), and re-evaluate paperwork requirements by federal and local entities for subsidized employment.</li> <li>Urban agriculture such as the program at Vincent High School, including Vincent's salad sales entrepreneurial programs at the Brewers stadium. p. (35)</li> </ul>
Actions	Goal/ Plan Links	<ul> <li>Risks Addressed</li> </ul>	Objective/Status/ *Lead #Implement
Develop And Implement <u>Action 20</u>	A Plan To Make Critical Infrastructure Around Water Systems Cyber Resistant (Other Systems – power, transportation,?) NAACP pp. 423-434 Module 19: Water Resource Management London and Singapore have identified the same challenges related to cyber threats. Partnerships with private companies were built to protect key infrastructure related to cyber risks, especially on water management system.	<ul> <li>FINANCIAL CONSTRAINTS</li> <li>CLIMATIC HAZARD</li> <li>VULNERABILITY OF CRITICAL INFRASTRUCTURE</li> </ul>	Increase the cyber resilience of water systems to reduce vulnerability. New Action *Municipalities *MMSD #Steps for implementation will be identified with partners. <b>Recommendation 7.8: Address security needs related to freight transportation</b> SEWRPC Shareweb from Shareable: https://www.shareable.net/how-a-shareable-network-could-be-more-beneficial-than-5g- for-future-smart-cities/
Actions	Goal/ Plan Links	Risks Addressed	Objective/Status/ *Lead #Implement
Design	And implement coastal management policies and programs <i>RFMKE: pp 36-37 SCR-CDR</i> .2a       Tools to Achieve Coastal Resilience         Currently, three tools are being used to respond to	<ul> <li>CLIMATIC HAZARD</li> <li>VULNERABILITY OF CRITICAL INFRASTRUCTURE</li> <li>DISTRIBUTION OF PUBLIC SERVICES</li> </ul>	New Action *Municipalities *MMSD #Steps for implementation will be identified with partners.

<u>Action 21</u>	SLR and chronic tidal flooding: natural infrastructure, also called "living shorelines" such as oyster reefs, seagrasses, mangrove forests, and wetlands; planned or managed retreat; and constructed barriers such as levees, seawalls, and floating structures. The Sierra Club believes that when planning adaptation responses to SLR and/or chronic tidal flooding, local governments and regional and state agencies should, as described below, first consider natural adaptation tools (such as living shorelines and tidal marsh restoration), followed by managed retreat and only if both these prove infeasible consider the application of hard-edged structures such as seawalls and levees. In all cases, the best available climate science should be used at all times. NAACP pp. 382-395 Module 16: Sea Level Rise and Coastal Resilience WE Energies from JCCtFCEE PR p.15	CCPR: J&E C. Short Term Projects/Programs As planning goes forward for the overall Climate Change and Economic Equity report, there are some existing efforts that could be supported now. The Task Force recommends increasing investment in the following areas and reducing barriers to programs that create paid hands-on training and employment opportunities: • The Milwaukee Water Commons recommendations related to water quality and diversifying the workforce in water-related jobs.
	<ul> <li>Been a major financial contributor to the Milwaukee Estuary Area of Concern clean-up and the Harbor District Brownfield clean-up efforts.</li> </ul>	

	PLAN NAME	PLAN LINK	PLAN Description
	Sierra Club Climate Resilience, Carbon Dioxide Removal, and Geoengineering Policy-Preface <i>SCR-CDR</i>	https://docs.google.com/document/d/1ghKjP m9gSq8_CMoXbO95DTUyp2onCs- T3iGWiGV7hOQ/edit	
Other Plans	MKE Environmental Collaboration Office GREAT LAKES & ST. LAWRENCE CITIES INITIATIVE 2014 SUSTAINABLE MUNICIPAL WATER MANAGEMENT PUBLIC EVALUATION REPORT MMSD SUS SeWeR Sustainable Water Reclamation 2012 SeWeR	https://glslcities.org/wp- content/uploads/2015/08/SMWM2014Report _Milwaukee.pdf https://www.mmsd.com/application/files/931 4/8416/1452/Sustainability_Plan.pdf	Sustainable Municipal Water Management (SMWM) declaration, which reflects a broader approach to protecting water resources. The SMWM Framework consists of six principles and 21 milestones to work towards. Indicators to measure progress have also been developed. Additionally, the Sustainable Municipal Water Management: Measuring Progress and Reporting Publicly was created as a guide to encourage members to measure and publicly report their progress towards implementation of sustainable municipal water trends and milestones. Milwaukee's 2014 Sustainable Municipal Water Management Public Evaluation Report (SPER) is the result of this effort. This plan is primarily about our future, but no look to the future is complete without first looking back and taking stock of where we are today. Chapters 1 and 2 are dedicated to that end, sum-marizing where we've come from and our foundations forward. Chapters 3 through 10 provide a window to our shared future. These chapters explain why we care about each topic, ways we might move forward to continue to meet challenges, and goals we might set in doing so. Chapter 11 provides a framework for the rewarding work to come.p7

CITY OF MILWAUKEE ALL HAZARDS MITIGATION PLAN UPDATE PRELIMINARY DRAFT August 2019 <i>MKE HAZ</i>	https://www.sewrpc.org/SEWRPCFiles/Com munityAssistance/CityMilwaukeeHazardMiti gation/CityofMilwaukeeHMP_August2019- RevisedDraftforWEM00249458xC212E.PDF	The City of Milwaukee all hazard mitigation plan update, which revises the City's initial 2005 hazard mitigation plan, sets forth the most appropriate, feasible, and effective hazard mitigation strategy for the City of Milwaukee over the period 2019 through 2024. The Federal Emergency Management Agency (FEMA) requires that the plan be reviewed and updated every five years. The updated plan, which was prepared by the staffs of the City of Milwaukee Department of Public Works and the Southeastern Wisconsin Regional Planning Commission (SEWRPC), is documented in SEWRPC Community Assistance Planning Report No. 282 (3rd edition), City of Milwaukee All Hazard Mitigation Plan Update.
MMSD Urban Biodiversity Plan <i>MMSD Bio</i>	https://www.freshcoastguardians.com/reso urces/our-plans	The Milwaukee Metropolitan Sewerage District (MMSD), with the support of local stakeholders, wrote this plan to help protect and restore native biodiversity within MMSD's planning area through the application of green infrastructure (GI). The term GI as used in this document refers to localized management approaches and technologies that infiltrate, evapotranspire, capture, and reuse stormwater to maintain or restore natural hydrology. While GI can also refer to landscape scale components, such as forests, floodplains, and wetlands, that help maintain the natural water cycle, the focus of this report is on the potential biodiversity contributions of parcel- and street-level stormwater interventions. The implementation of such localized GI provides a wide range of triple-bottom-line (TBL) framework benefits as documented in several other studies (e.g., MMSD 2012, Wallace 2012, USEPA 2013, MMSD 2013):
ReFresh Milwaukee <b>RFMKE</b>	https://city.milwaukee.gov/ImageLibrary/Gro ups/cityGreenTeam/documents/2018/ReFres h2018ProgressReport.pdf	ReFresh Milwaukee provides a vision for community sustainability over the next 10 years with wide-ranging goals and targets to be met.
Milwaukee Shines: <i>MKES</i>	https://city.milwaukee.gov/MilwaukeeShines #.XflCGWYVSu5	Milwaukee Shines is Milwaukee's solar energy program. Milwaukee Shines provides information for home and business owners, resources for solar industry professionals, runs solar group buy programs in the City and partners with Summit Credit Union to offer solar loans up to \$20,000.
Water Centric City <i>MKEWCC</i>	https://city.milwaukee.gov/WCC	These seven principles define what it means to be a Water Centric City. *Water Leadership *Arts Culture and Education *Water technology *Green Infrastructure *Applied Water Research *Fishable Swimmable Water We encourage cities to view all Water Centric City principles through an equity lens.
Home Grown <i>MKEHG</i>	https://city.milwaukee.gov/homegrownmilwa ukee.com#.XflF1GYVSu5	HOME GR/OWN transforms neighborhoods by converting vacant lots into pocket parks, orchards, and gardens that create jobs, revitalize neighborhoods and increase access to

		healthy, local food, promoting neighborhood cohesion and placemaking.
Me2 Milwaukee Energy Efficiency <i>MKEMe2</i>	https://city.milwaukee.gov/Me2#.XflGIWYV Su5	Me <sup>2</sup> provides affordable financing up to \$15,000 for energy saving improvements like new insulation, furnaces, boilers, hot water heaters, air conditioners, and now, windows! With Me <sup>2</sup> financing through our partner, Summit Credit Union, you can redirect some of the money you spend on high energy bills into home improvements that will keep you and your family comfortable year round.
PACE Milwaukee <i>MKEPACE</i>	https://city.milwaukee.gov/bbc/services/PAC E-Financing	Property Assessed Clean Energy (PACE) financing helps commercial property owners affordably finance building upgrades like heating and cooling systems, lighting, controls, renewable energy and water efficiency upgrades. Payments are collected through a voluntary municipal special charge that is paid back through the property tax system and is attached to the property, not the owner.
MKE Better Buildings Challenge MKEBBC	https://city.milwaukee.gov/bbc	Benchmarking Energy Assessments PACE Financing Incentives O&M Support Clean Technology
Milwaukee Water Commons Branch Out: MWC BO	https://www.milwaukeewatercommons.org/in itiative-water-quality	What started as recognizing a shared goal around improving water quality fostered the creation of the Branch Out Milwaukee Campaign: a program that has developed a collective action tree planting and maintenance program aimed at equitably growing Milwaukee's tree canopy to maximize the environment al and public benefits of our City's trees.
South Eastern Wisconsin Regional Planning Commission SEWRPC	https://www.sewrpc.org/SEWRPC.htm https://www.sewrpc.org/SEWRPCFiles/Publi cations/AnnualReport/2018_annual_report.p df	(For general description see first page under MMSD as this plan is regional in nature and "contains" all the others)
Kansas City Playbook	https://www.marc.org/Environment/Climate- Action/pdf/Climate_Action_Playbook.aspx	(Recommended by Bruce Wiggins, former City Planner in Kansas City)
Equitable Clean Energy Guidebook CADMUS	https://cadmusgroup.com/wp- content/uploads/2018/09/Cadmus-USDN- Equitable-Clean-Energy- Guidebook.pdf?utm_referrer=https%3A%2F %2Fcadmusgroup.com%2Fpapers- reports%2Fa-guidebook-on-equitable-clean-	The growing wealth disparity between low- and moderate-income (LMI) households and other underserved groups and those with greater affluence is reflected through the disproportionate uptake of clean technologies by higher-income households in U.S. and Canadian municipalities. These households lack access to clean energy technologies because of a variety of barriers, including affordability, high up-front costs, access to credit, split incentives between landlords and tenants, outreach

	energy-program-design-fo governments-and-partner	or-local- srs%2Fand awareness, and other programmatic barriers. These trends raise concerns of a growing "electrical divide" where differing abilities to adopt new clean energy technologies could further disadvantage communities.1
Our Communities, Our Per Resistance and Resilience Adaptation NAACP	bwer: Advancing be in Climate Change	<u>The Beloved Community is a vision for our future where all people share equally in the</u> <u>(Our-Communities- INAL.pdf</u> ) <u>(NAL.pdf</u> ) <u>(NAL.pdf</u> ) <u>(NAL.pdf</u> ) <u>(NAL.pdf</u> ) <u>(Nat.pdf</u> ) <u>(Nat.p</u>
USDA Food Security Gui USDA	ide <u>https://www.ers.usda.gov</u> <u>nutrition-assistance/food-</u> <u>us/survey-tools/#househo</u>	<i>interpretable</i> ONE TOOL: U.S. Household Food Security Survey Module <i>observer</i> (18-items) Three-stage design with screeners. Screening keeps respondent burden to the minimum needed to get reliable data. Most households in a general population survey are asked only three questions (five if there are children in the household). The questionnaire has been modified slightly from that in the Guide, and the questions have been re-ordered to group the child-referenced questions after the adult-referenced questions; download it in the format that works
Climate Fast Forward WI Acad of Sci Art and I WAASL	https://www.wisconsinac. consinacademy.org/files/ ort_Final_Jan2020.pdf	ademy.org/sites/wis       First climate Emergency Declaration/ Work Group Report/ Drawdown base         CFFConferenceRep
Montgomery County MGC	https://scruzclimate.files. 8/07/climatemobilization	wordpress.com/201 report-1.pdf
Resilience Alliance	http://www.resalliance.or	rg/3871.php Key Concepts   Social-ecological Systems   Transformation   <u>Resilience</u>   <u>Panarchy</u>   <u>Adaptive</u> <u>Management</u>   <u>Adaptive Cycle</u>   <u>Adaptive Capacity</u>
Cosmopolis: Centre for U CUR	(see 16 b transit)	Free Public Transit report
Turku Circularity Report TCR	http://e-lib.iclei.org/public report-web.pdf	This publication is a product of the "Circular Turku: Regional collaboration for resource wisdom" (2019-2021) project, which aims to design a regional roadmap to operationalize circularity in the Turku region with the support of local stakeholders and ICLEI - Local Governments for Sustainability. The report captures the results and learnings of the inception phase of the project and the existing endeavors and good practices of Turku.
WI Clean Energy Toolki	https://9aafd4f1-d7cd-43c 09ac33f87b88.filesusr.co 4580584f414abc43a8e53	c8-934c- pm/ugd/fe3757_46d9As support grows for clean energy, there is a need to help communities of various sizes with differing resources develop a plan for their transition to renewable energy. This

		toolkit offers ideas and resources to help Wisconsin communities begin this transition.
Agroecology AE	https://www.coventry.ac.uk/globalassets/med ia/global/08-new-research- section/signposts/everyday-experts-complete- new.pdf	The collaborative project that has led to Everyday Experts has come together during perhaps the greatest global political upheaval since the Second World War. Food and water insecurity, mass human migrations and violent conflict, often involving struggles for control over land and other resources, are affecting more people than any time in history. Our collective aim, as editors and contributors, has been to support efforts that allow all people's participation in the creation and democratic control of change. We do this by sharing stories of people who we call everyday experts. These are people whose expertise
	https://www.publications.usace.army.mil/Por	comes from their life experience rather than from professional training. Our book explores how these experts-by-experience can work together with professionals to transform our damaged food system towards health and agroecological goals on the one hand, and a fair distribution of power, risk and resources on the other. We have been brought together by a common desire to reflect critically on how people's knowledge and wisdom can be harnessed through action, participatory research and critical learning in support of movements for greater justice in the food system.
US Army Corps of Engineers Resilience Initiative Roadmap 2016 USACE R	tals/76/Publications/EngineerPamphlets/EP 1100-1-2.pdf?ver=2017-11-02-082317-943	<b>RESILIENCE</b> has developed at national, state, regional, and local levels as the concept to convey a holistic approach to addressing threats and uncertainty from acute hazards such as more frequent and/or stronger natural disasters, man-made threats, changing conditions from population shifts and climate change. Resilience represents a comprehensive, systems-based, lifecycle approach to both acute hazards and changes over time, and the concept of resilience is used to convey a broad-based, collaborative approach to finding creative solutions to such challenges. Executive Order (EO) 13653, "Preparing the United States for the Impacts of Climate Change" (November 2013), describes resilience as "the ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover ranidly from disruptions."
100 Resilient Cities	https://www.sandia.gov/cities/index.html	Energy systems are at the heart of the web of interconnected infrastructures that support civilization as we know it. Sandia National Laboratories' Urban and Community Resilience Initiative works directly with cities, electric utilities, and other stakeholders to develop strategies for improving the resilience of local energy systems to support critical lifeline functions such as water, food, and shelter following emergencies. Through this initiative, Sandia's capabilities in modeling, designing, optimizing, and analyzing infrastructures and social systems converge toward helping planners suggest and evaluate resilience-enabling technologies such as <u>advanced microgrids</u> , energy storage, and transportation electrification at a city-wide or community-wide scale.
Drawdown: Dd	https://drawdown.org https://emke.uwm.edu/about/	Our mission is to help the world reach "Drawdown"— the point in the future when levels of greenhouse gases in the atmosphere stop climbing and start to steadily decline, thereby stopping catastrophic climate change — as quickly, safely, and equitably as possible. The Encyclopedia of Milwaukee project aims to provide comprehensive coverage of the

Encyclopedia of Milwaukee EM		history of Milwaukee. With a projected 740 entries, hundreds of illustrations, historical and contemporary maps, bibliographic materials, and the opportunity to interact with readers, the EMKE will be a first stop for researchers ranging from students to journalists to scholars and the general public.
T4America: Green New Deal for Transportation <i>T4</i>	http://t4america.org/wp- content/uploads/2020/03/20.03 GND- Transit_use_v4.pdf	Federal transportation policy is broken. American communities are suffering as a result. The U.S. transportation system is both an enormous source of carbon emissions and a major contributor to inequality. Access to safe, affordable, and reliable transportation is a fundamental right, yet most Americans are denied this right because of misguided federal transportation policies and funding priorities.
Urban Thinking for Municipalities <i>UTM</i>	https://www.academia.edu/10862964/Urban_ Resilience_Thinking_for_Municipalities?em ail_work_card=view-paper	This document was prepared as a contribution to the Department of Science and Technology's (DST's) Grand Challenge on Global Change and as a complement to flagship initiatives such as the South African Risk and Vulnerability Atlas project (Archer, et al., 2010). The Global Change Grand Challenge is aimed at "supporting knowledge generation and technological innovation that will enable South Africa, Africa, and the world, to respond to global environmental change, including climate change" (Archer, et al., 2010, p. ii).
Joint City County Task Force on Climate and Economic Equity. Preliminary Report <i>JCCtFCEE PR. (CCPR)</i>	https://milwaukee.legistar.com/LegislationDe tail.aspx?ID=4198225&GUID=BDE0973B- EABE-4AE0-ACFF- 578C65FBEC8B&Options=ID &Search=191 039	Confronted with the climate emergency and persistent economic disparities, the City and County of Milwaukee recognized an opportunity to simultaneously address both of these pressing issues. In 2019, resolutions from the City of Milwaukee Common Council and County Board of Supervisors created the City-County Task Force on Climate and Economic Equity. This Task Force was charged with "making recommendations on how to address the ongoing climate crisis, ensure Milwaukee meets the obligations set by scientists for necessary greenhouse gas reduction, and mitigate racial and economic inequity through 'green' jobs."