

Michigan Association of Planning A Chapter of the American Planning Association

A Climate Change Policy Guide Supplement for Michigan Adopted April 2022

Introduction

The Michigan Association of Planning (MAP), as a chapter of the American Planning Association (APA), benefits from the Policy Guides developed by our parent organization. A Climate Change Policy Guide (https://www.planning.org/publications/document/9210766/) was ratified by the APA Board of Directors on December 10, 2020.

APA Policy Guides are developed by planners and other professionals with expertise in the topic area, over more than a year, with review and comment periods built into the development process. They are vetted with APA's 47 Chapters through a delegate review and comment process. Where the APA has an adopted policy guide in place, MAP will recognize and advance the recommendations of the policy.

Sometimes the APA does not have a policy in place to guide Michigan Chapter work, and MAP, through our Board and Government Relations Committee, will research and write a policy supplement specific to Michigan's unique needs and circumstances. At other times, an APA policy guide may not provide enough Michigan specific guidance - we possess unique circumstances that demand greater study than an APA Policy Guide has provided - and MAP will add to or supplement an APA Policy Guide to address issues present in Michigan.

The APA Climate Change Policy Guide is an example of a national policy that addresses a topic of critical importance to Michigan but does not go far enough to cover the unique needs and circumstances of our Great Lakes State. In response, the MAP Government Relations Committee developed this policy supplement to offer Michigan local governments additional sample policies to address climate change.

The MAP Climate Change Policy Supplement includes sample policy recommendations specific to:

- Protection of our globally unique Great Lakes in the face of pressures from diminishing global freshwater supplies; and
- Climate migration impacts and preparation

The Government Relations Committee developed the following additions to the APA Climate Policy Guide, which are labeled with letters and numbers to correlate to the structure established in that document. Appendix I situates these additional policies within the full list included in the APA Climate Policy Guide. This policy supplement was approved by the MAP Board of Directors in April 2022.

Supplemental Policies for Michigan

B.13. Position Michigan as an attractive and accessible haven for climate migration

Climate change is forcing worldwide migration as many communities face increasingly extreme weather events, such as drought, wildfires, and hurricanes. Michigan's distinct geography and relatively temperate climate have the potential to attract new residents and produce a state of resilience, with an abundance of natural resources and capacity for manufacturing and food production.

Careful planning will be necessary to prepare Michigan communities to receive climate migrants, while sustaining and enhancing the quality of life that residents experience today and conserving natural resources in the face of increased pressures from migration as well as global demands. Planners also have the opportunity to envision a future that aligns climate opportunities and economic opportunities to ensure that these benefits are shared equitably.

- B.13.1 Prepare receiving communities for climate migrants with accessible housing options, a livable built environment, and integrated community support networks.
- B.13.2 Engage current residents in decision-making opportunities for context-sensitive, sustainable growth and adaptation.
- B.13.5. Support municipal operations that enhance community resilience through cross-sector and multi-jurisdictional planning approaches for future housing, infrastructure, energy, transportation, and economic development needs.
- B.13.4. Coordinate regionally and with other states to share and represent climate data, migration trends, and relevant projections in local planning and development processes.
- B.13.5. Promote sustainability initiatives and place-based advantages to educate people and businesses making relocation decisions.

C.10. Plan for dynamic Great Lakes water levels

Water level fluctuations on the Great Lakes are mainly driven by precipitation, evaporation, and runoff. Recently, water levels in the Great Lakes have changed rapidly from the near record lows to record highs and the strongest evidence indicates increasing variability in lake level fluctuations in the future. Coastal communities and dependent economic sectors must plan for dynamic water levels to protect public and private property and minimize economic losses.

- C.10.1. Educate the public on the dynamic nature of Great Lakes water levels to gain local support to effectively manage the shoreland.
- C.10.2. Engage community members in planning processes that envision possible future scenarios with varying intensities of climate change impacts relative to varying intensities of shoreland development.
- C.10.3. Utilize the latest data and community input to adopt locally relevant shoreland development policies (including managed retreat) that account for short-term, annual, and long-term water level changes.
- C.10.4. Update plans and codes to incorporate principles, mechanisms, and procedures that recognize and accommodate naturally shifting Great Lakes shorelands.
- C.10.5. Preserve natural Great Lakes coastal systems where they still exist and restore and conserve them over time where they are already developed.
- C.10.6. Prioritize shoreland infrastructure adaptation and relocation.
- C.10.7. Redesign public shoreland properties for continued public use and resilience regardless of water level.
- C.10.8. Increase zoning setbacks for Great Lakes properties (or adopt dynamic coastal shoreland zoning).
- C.10.9. Refrain from issuing variances on shoreland properties.
- C.10.10. Create predominantly naturally vegetated buffer properties between the water and public and private infrastructure and structures.
- C.10.11. Consider coastal mitigation buy-out programs of problematic private properties.
- C.10.12. Use hardened shoreline structures (armoring) sparingly.
- C.10.13. Budget for regular harbor and riverine dredging.
- C.10.14. Partner with qualified agencies for invasive plant species control along Great Lakes shorelines during periods of low water.

C.11. Advocate for Great Lakes protection

Michigan is defined by the Great Lakes and therefore defined by fresh water. No greater natural resource or strategic asset exists in Michigan than the fresh water of The Great Lakes State. Yet the Great Lakes remain under threat from human activities including the compounding effects of climate change. In fact, climate change may present the greatest threat to the Great Lakes to date - the greatest threat to our greatest resource.

Planners, being systems thinkers and doers across the dimensions of the built and natural environments, are uniquely positioned to lead Michigan communities and the state in making changes to policy and practice that will restore and protect the Great Lakes despite the daunting impacts of climate change.

Warmer surface water temperatures that increase stratification and decrease vertical mixing, combined with larger rain events that contribute nutrient loading to the Great Lakes from impervious surfaces, combined sewer overflows, and agricultural fertilizers result in the formation of harmful algal blooms, hypoxic dead zones, beach closures, and other threats to human health, recreation, and the water-based economy. Communities must curtail nutrient

export to the Great Lakes through improved planning, low impact development, land protection, and land management techniques. State agencies and governments represented in the Great Lakes Compact must also anticipate and prepare for greater demand for Great Lakes water resources from elsewhere in the country and the world that are projected to be drier as a result of climate change.

- C.11.1 Curtail nutrient export from agricultural and built environment land uses.
- C.11.1.1 Develop regional (multijurisdictional) green infrastructure plans that identify priority lands along river corridors, surface waters, and wetlands for protection.
- C.11.1.2 Adopt a stormwater utility and tailor rates to the amount of impervious surface onsite.
- C.11.1.3 Provide stormwater credits on water bills for homeowners and businesses that implement practice to reduce stormwater runoff from their property.
- C.11.1.4 Fund the separation of municipal storm sewer systems.
- C.11.1.5 Partner with land conservancies and philanthropy to purchase outright or place conservation easements on farmland and natural landscapes that are adjacent to surface waters.
- C.11.1.6 Develop new tools, mechanisms, and partnerships for on-farm conservation finance at the state and local levels.
- C.11.1.7 Incentivize the installation of agricultural buffer/filter strips.
- C.11.2 Protect and strengthen the Great Lakes Compact (originally H.6)
- C.11.2.1. Encourage local leaders to read and understand the Great Lakes Compact.
- C.11.2.2. Monitor the communications and actions of the Great Lakes Commission (https://www.glc.org/), Great Lakes-St. Lawrence River Basin Water Resources Council (https://www.glslcompactcouncil.org/), and the Conference of Great Lakes St. Lawrence Governors & Premiers (https://gsgp.org/).
- C.11.2.3. Become active with the Great Lakes and St. Lawrence Cities Initiative (https://glslcities.org/).
- C.11.2.4. Help implement the Michigan Water Strategy (www.michigan.gov/waterstrategy) and engage with the Office of the Great Lakes (https://www.michigan.gov/ogl/) and the Michigan Water Cabinet.
- C.11.2.5. Engage with state agencies and Great Lakes Compact governments to anticipate and prepare for increased demand for Great Lakes water resources from other parts of the country and the world made dryer by climate change

D.9. Assist the tourism industry in diversifying and adapting to shifting seasons

Winter recreation and tourism are likely to suffer due to reduced snow cover and shorter winters, while increasing summer temperatures and a longer summer season may increase demand for summer recreational pursuits. Recreational fishing for coldwater species will also suffer with populations of warm water species likely to grow. Planners and other local and state economic development staff can help communities and individual businesses adapt to these expected changes while continuing to offer a Pure Michigan experience for visitors and residents alike.

- D.9.1. Create regional advisory committees of tourism industry representatives to better understand current and projected climate change impacts to area tourism businesses.
- D.9.2. Work with the U.S. Economic Development Administration regional economic development district to include tourism industry related projects to the regional Comprehensive Economic Development Strategy (CEDS).
- D.9.3. Facilitate connections between tourism businesses and the local and/or regional economic development district to access available funding for business climate adaptations.
- D.9.4. Partner with the area destination marketing organization (e.g. the convention and visitors bureau) to develop a marketing plan that embraces the new or changing recreation opportunities emerging from climate change.
- D.9.5. Partner with the area destination marketing organization, tourism businesses, and public lands owners and managers to develop a destination management plan to manage and mitigate emerging tourism impacts to natural resources and public lands.

Appendix

Additions to the APA policy specific to Michigan are indicated by "(MI)" in the below list. Elaboration of each of the APA policies can be found in the full 41-page guide at https://www.planning.org/publications/document/9210766/.

A. Federal and State Policies

Federal Policy A.1. Advocate for strong national climate leadership.

- A.1.1 Advocate for development of clear and usefully scaled climate information.
- A.1.2 Advocate for strong U.S. international leadership on climate change.
- A.1.3 Advocate for federal funding for climate change planning.
- A.1.4 Support close cooperation among federal, state, and local governments.
- A.1.5 Support federal funding for climate resilience measures.
- A.1.6 Support climate analysis as part of regulatory decision making.
- A.1.7 Support a common, focused goal of reduction of GHG emissions through implementation of a programmatic, uniform federal approach to address climate change.

Federal Policy A.2. Advocate for a national transition to a clean energy economy.

- A.2.1 Advocate for carbon pricing strategies.
- A.2.2 Support stringent regulation of carbon fuel products.
- A.2.3 Support adoption of a national building energy performance rating system.
- A.2.4 Support domestic energy independence built around renewable sources and technologies that are ecologically, socially, and economically sustainable.

- A.2.5 Support development of a federal program to encourage use of low-/no-carbon products and incentivize their reuse.
- A.2.6 Support use of carbon offset programs that have been documented to reduce GHG.
- A.2.7 Support expansion and improvement of the federal brownfield program.
- A.2.8 Support changes to agricultural policy and practices.

Federal Policy A.3. Advocate for the development of a sustainable federal transportation agenda.

- A.3.1 Advocate for the prioritization of mass transit funding.
- A.3.2 Support low-cost, sustainable mobility solutions.
- A.3.3 Advocate for a transition to clean transportation energy.
- A.3.4 Advocate for a transition away from fuel taxes.
- A.3.5 Revamp performance measures for federally funded road projects.

State Policy A.4. Advocate for state climate change plans, policies, programs and projects.

- A.4.1 Advocate for close coordination between state and local governments.
- A.4.2 States should enact strong planning enabling legislation.
- A.4.3 Support and participate in state, regional, and local infrastructure planning.
- A.4.4 Advocate for mandatory building energy codes.
- B. Livable Built Environment Policies
- B.1. Plan for multimodal transportation.
- B.1.1 Advocate for non-auto-centric development patterns.
- B.1.2 Require multimodal transportation.
- B.1.3 Require alternative energy facilities.
- B.1.4 Plan for first/last mile connectivity.
- B.1.5 Include emerging technologies as part of transit system design.
- B.1.6 Promote transportation demand management.
- B.1.7 Promote climate positive travel options.
- B.1.8 Advocate for significantly enhanced transit availability and experience.
- B.1.9 Reduce transit emissions.
- B.1.10 Repurpose public rights-of-way to support climate-positive options.
- B.1.11 Revise parking requirements.
- B.1.12 Promote congestion pricing.
- B.2. Plan for Transit-Oriented Development.
- B.2.1 Create planned opportunities for compact mixed-use development.
- B.2.2 Create zoning that allows TODs outright.
- B.2.3 Develop subarea plans that incentivize TODs.

- B.2.4 Create TOD design guidelines.
- B.3. Coordinate regional transit investments with job clusters.
- B.3.1 Ensure that planned regional transit serves job-rich areas.
- B.3.2 Ensure new regional transit serves areas of new and existing high-density development.
- B.3.3 Ensure benefits to all community members.
- B.4. Provide green and complete streets serving multiple functions.
- B.4.1 Develop a green and complete streets toolbox.
- B.4.2 Integrate alternative modes into existing rights-of-way.
- B.4.3 Utilize green infrastructure best practices.
- B.5. Plan for mixed land-use patterns to create walkable communities.
- B.5.1 Provide for a mix of uses in urban areas.
- B.5.2 Encourage mixed-use area development.
- B.5.3 Adopt equity-based urban design guidelines.
- B.5.4 Plan for significant open space areas.
- B.5.5 Support more diverse and affordable housing options.
- B.6. Promote and plan for infill development.
- B.6.1 Incentivize mixed-use development.
- B.6.2 Preserve high-value natural areas.
- B.6.3 Prioritize infill and redevelopment in long-range planning.
- B.6.4 Support equity provisions.
- B.6.5 Promote higher density in activity centers.
- B.7. Implement green building design and energy conservation.
- B.7.1 Advocate for green building and design.
- B.7.2 Advocate for sustainable community rating systems.
- B.7.3 Adopt sustainability regulations.
- B.7.4 Promote green building and design in long-range planning.
- B.8. Conserve and reuse historic resources.
- B.8.1 Advocate for historic preservation.
- B.8.2 Preserve and reuse existing non-historic buildings.
- B.8.3 Reuse and recycle existing building materials.
- B.9. Prohibit development in hazard zones.
- B.9.1 Effectively regulate hazard areas.
- B.9.2 Utilize design guidance.
- B.9.3 Ensure plans are current.
- B.9.4 Reduce long-term risks.
- B.9.5 Plan for retreat from increasingly hazardous areas.
- B.10. Require resilient development and infrastructure.

- B.10.1 Plan for resilience.
- B.10.2 Create technical assistance for development.
- B.10.3 Develop resilience-based design standards and building codes.
- B.10.4 Require mitigation and resilience-based measures in development review.
- B.10.5 Provide economic incentives for resilient developments.
- B.11. Invest in smart infrastructure.
- B.11.1 Incorporate smart technologies into future projects.
- B.11.2 Require new development/redevelopment projects to include smart cities technologies that have proven climate benefits.
- B.11.3 Incorporate smart technology into long-range planning.
- B.11.4 Encourage the development of decentralized and renewable/clean energy systems.
- B.11.5 Utilize intelligent transportation systems (ITS).
- B.12. Provide accessible public facilities and spaces.
- B.12.1 Provide for accessibility.
- B.12.2 Incorporate accessibility into all projects.
- B.13 (MI). Position Michigan as an attractive and accessible haven for climate migration Climate change is forcing worldwide migration as many communities face increasingly extreme weather events, such as drought, wildfires, and hurricanes. Michigan's distinct geography and relatively temperate climate have the potential to attract new residents and produce a state of resilience, with an abundance of natural resources and capacity for manufacturing and food production.

Careful planning will be necessary to prepare Michigan communities to receive climate migrants, while sustaining and enhancing the quality of life that residents experience today and conserving natural resources from increased pressure from migration and global demands. Planners also have the opportunity to envision a future that aligns climate opportunities and economic opportunities to ensure that these benefits are shared equitably.

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C. Harmony with Nature

- C.1. Enact policies to reduce GHG emissions.
- C.1.1 Develop GHG inventories, analysis methods, and action plans.
- C.1.2 Support energy and water conservation.
- C.1.3 Promote a circular economy.
- C.1.4 Eliminate waste.
- C.1.5 Support sustainable agricultural practices, recognizing adverse impacts of climate change on agriculture-rich regions in many parts of the country and the world.
- C.1.6 Support sustainable forestry practices.
- C.1.7 Understanding and maintaining ecosystem energy exchanges.
- C.2. Restore and protect environmentally sensitive areas.
- C.2.1 Design with nature.
- C.2.2 Protect and restore natural capital.
- C.2.3 Reduce consumption of natural resources.
- C.2.4 Restore and protect environmentally sensitive areas.
- C.2.5 Protect important natural assets as "carbon sinks."
- C.2.6 Restore and protect biodiversity.
- C.3. Provide and protect a green infrastructure network.
- C.3.1 Protect natural systems.
- C.3.2 Reconnect natural systems.
- C.3.3 Recognize ecosystem services.
- C.3.4 Advance biophilic design.
- C.3.5 Utilize native vegetation.
- C.3.6 Eliminate invasives.
- C.3.7 Recognize that historical habitat area delineations may migrate due to a changing climate.
- C.3.8 Utilize sustainable land management.
- C.3.9 Promote green infrastructure.
- C.4. Promote green stormwater management.
- C.4.1 Utilize low-impact development techniques (LID).
- C.4.2 Utilize life-cycle assessment.
- C.4.3 Use accurate data.
- C.4.4 Promote nature-based solutions.
- C.4.5 Promote tree preservation.
- C.5. Advocate for policies to improve and protect air quality.
- C.5.1 Preserve natural resources.
- C.5.2 Advance compact development and biophilic design.

- C.5.3 Utilize sustainable landscaping.
- C.6. Advocate for climate change adaptation.
- C.6.1 Advance climate adaptation planning now.
- C.6.2 Leverage the co-benefits of interdisciplinary projects.
- C.6.3 Promote natural and nature-based solutions.
- C.7. Promote solid waste reduction.
- C.7.1 Support life-cycle materials management.
- C.7.2 Promote waste prevention.
- C.7.3 Promote the reuse of materials.
- C.7.4 Promote the expansion of recycling.
- C.7.5 Promote the expansion of composting and waste-to-energy generation.
- C.7.6 Support changes in the design, retrofitting, operation, and management of waste disposal sites.
- C.8. Encourage water conservation and plan for a lasting water supply.
- C.8.1 Promote water conservation and efficiency.
- C.8.2 Advocate for climate-resilient water infrastructure.
- C.8.3 Promote innovative ways to manage and reuse wastewater.
- C.8.4 Promote the use of constructed wetlands for treating wastewater.
- C.8.5 Promote aquifer protection, storage, and recharge.
- C.8.6 Promote the use of desalination as part of an overall water supply program.
- C.9. Protect and manage streams, watersheds, and floodplains.
- C.9.1 Promote protection of floodplains and other vegetated buffers around and along rivers, streams, and wetlands.
- C.9.2 Promote a watershed approach to water and drainage planning and more frequent assessments.
- C.9.3 Promote improved infrastructure resilience and climate adaptation.
- C.9.4 Promote solutions that use natural systems, mimic natural processes, or work synergistically with traditional approaches to protect our floodplains and watersheds.
- C.10 (MI) Plan for dynamic Great Lakes water levels

Water level fluctuations on the Great Lakes are mainly driven by precipitation, evaporation, and runoff. Recently, water levels in the Great Lakes have changed rapidly from the near record lows to record highs and the strongest evidence indicates increasing variability in lake level fluctuations in the future. Coastal communities and dependent economic sectors must

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impervious surfaces, combined sewer overflows, and agricultural fertilizers result in the formation of harmful algal blooms, hypoxic dead zones, beach closures, and other threats to human health, recreation, and the water-based economy. Communities must curtail nutrient export to the Great Lakes through improved planning, low impact development, land protection, and land management techniques.

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- C.11.2.5. Engage with state agencies and Great Lakes Compact governments to anticipate and prepare for increased demand for Great Lakes water resources from other parts of the country and the world made dryer by climate change.
- D. Resilient Economy
- D.1. Ensure that economic development is attuned to climate strategy while maximizing economic benefits to all.
- D.1.1 Diversify local economies.

- D.1.2 Promote a circular economy.
- D.1.3 Brownfield redevelopment.
- D.1.4 Promote density.
- D.1.5 Account for the full costs of the economy.
- D.1.6 Ensure economic growth is inclusive.
- D.2. Promote workforce development to meet the needs of a clean-energy and sustainable economy.
- D.2.1 Green-collar jobs.
- D.3. Promote regional clean energy strategies.
- D.3.1 Create municipal targets for renewable energy.
- D.3.2 Advocate for renewable energy when replacing aging infrastructure.
- D.3.3 Promote clean energy and energy efficiency to decrease the use of fossil fuels in energy production.
- D.3.4 Develop and use climate-protective tax incentives and other financial tools.
- D.3.5 Promote local clean energy regulations and incentives.
- D.3.6 Promote partnerships.
- D.3.7 Include externalities in the total cost of production and price accordingly.
- D.4. Require resource-efficient economic development.
- D.4.1 Encourage combined heat and power.
- D.4.2 Support eco-industrial development.
- D.4.3 Foster innovation.
- D.4.4 Ensure sustainable consumption and production patterns.
- D.4.5 Support federal, state, and local policies to promote the reuse and repurposing of materials and spur innovation.
- D.4.6 Integrate resilient economy elements into plans and regulations.
- D.5. Advocate for community-based economic development.
- D.5.1 Green building standards.
- D.5.2 Performance-based code alternatives.
- D.5.3 Ongoing investment in building energy efficiency.
- D.5.4 Incentivize and require green roofs.
- D.5.5 Promote incentives and education for green development.
- D.6. Provide climate-ready infrastructure capacity.
- D.6.1 Technology and communications.

- D.6.2 Support the orderly development and deployment of technology and infrastructure.
- D.6.3 Support targeted hardening of infrastructure to protect the public health, safety, and environment.
- D.6.4 Support decentralized energy distribution.
- D.7. Plan for post-disaster economic recovery.
- D.7.1 Address physical and sector vulnerabilities.
- D.7.2 Support business disaster preparedness and recovery.
- D.8. Link regional food systems and conservation to economic resiliency plans.
- D.8.1 Use economic development programs to enhance conservation efforts.
- D.8.2 Work to remove barriers and provide incentives for composting and reducing food waste.
- D.8.3 Promote the benefits of sustainable agroforestry.
- D.8.4 Support the preservation of prime agricultural and forest land.
- D.8.5 Support the creation and retention of both local and regional food producers.
- D.9 (MI) Assist the tourism industry in diversifying and adapting to shifting seasons Winter recreation and tourism are likely to suffer due to reduced snow cover and shorter winters, while increasing summer temperatures and a longer summer season may increase demand for summer recreational pursuits. Recreational fishing for coldwater species will also suffer with populations of warm water species likely to grow. Planners and other local and state economic development staff can help communities and individual businesses adapt to these expected changes while continuing to offer a Pure Michigan experience for visitors and residents alike.
- D.9.1. Create regional advisory committees of tourism industry representatives to better understand current and projected climate change impacts to area tourism businesses
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- D.9.5. Partner with the area destination marketing organization, tourism businesses, and public lands owners and managers to develop a destination management plan to manage and mitigate emerging tourism impacts to natural resources and public lands

E. Interwoven Equity

- E.1. Integrate equity considerations into all forms of climate action.
- E.1.1 Use environmental justice principles.
- E.1.2 Use meaningful and inclusive public involvement processes.
- E.1.3 Ensure an inclusive, fair, and two-way information exchange.
- E.1.4 Provide pro bono assistance.
- E.1.5 Employ an equity-enlightened approach to cost benefit analyses.
- E.1.6 Incorporate equity metrics.
- E.1.7 Provide outreach and educational opportunities.
- E.2. Connect underserved communities to multimodal transportation options and economic opportunity.
- E.2.1 Promote compact, mixed use development.
- E.2.2 Create channels for coordination between multimodal transportation and economic development planning.
- E.2.3 Help foster community-based efforts for transit advocacy.
- E.2.4 Promote progressive transit pricing.
- E.2.5 Ensure that community-based climate resiliency plans and evacuation strategies include public transportation.
- E.2.6 Promote microtransit options.
- E.3. Increase climate-ready affordable housing in transit-served areas.
- E.3.1 Remove regulatory barriers to affordable housing.
- E.3.2 Prioritize development of affordable housing.
- E.3.3 Assure that affordable housing is built or renovated to be energy efficient.
- E.3.4 Engage housing advocates and stakeholders.
- E.3.5 Identify appropriate locations for buyouts or development rights transfers.
- E.3.6 Protect disadvantaged residents.
- E.3.7 Replace traditional Euclidean zoning.
- E.4. Improve green infrastructure and open space connectivity in underserved communities.
- E.4.1 Expand, establish, fund, and support green and open spaces.
- E.4.2 Increase tree biomass and use it to manage atmospheric heat loads and absorb carbon.
- E.4.3 Assure local access to nature and outdoor experiences.
- E.4.4 Retain biodiversity within natural systems.
- E.5. Promote more equitable energy and utility systems.
- E.5.1 Implement solar and other on-site energy capture programs.
- E.5.2 Promote a progressive carbon tax.

- E.5.3 Support the expansion of renewable energy programs.
- E.5.4 Promote local building insulation and weatherization programs.
- E.5.5 Provide accessible programs and tools.
- E.5.6 Promote inclusion of on-site rainwater capture and water treatment and recycling systems.
- E.6. Create policies and programs that support an equitable, resilient economy.
- E.6.1 Fold vocational, educational, and other local training programs into climate-readiness initiatives.
- E.6.2 Institute equitable procurement practices.
- E.6.3 Encourage the business community to educate itself.
- E.6.4 Strive for equitable access to goods, services, and resources.
- E.6.5 Seek economic and employment opportunities for vulnerable residents.
- E.7. Mitigate climate change health and safety risks to vulnerable population groups.
- E.7.1 Develop emergency management and evacuation strategies that prioritize vulnerable populations.
- E.7.2 Develop resiliency plans that address continued access to key services in underserved areas.
- E.7.3 Identify and address existing disparities in access to health care and health opportunities.
- E.7.4 Promote localized food production.
- E.7.5 Improve digital access to information.
- E.7.6 Provide targeted educational opportunities and outreach programs about health and safety risks.

F. Healthy Communities

- F.1. Improve community health and resilience to climate change by planning for the social determinants of health.
- F.1.1 Reduce exposure to toxins and pollutants.
- F.1.2 Increase public safety and reduce injury risk.
- F.1.3 Promote physical activity and healthy lifestyles.
- F.1.4 Provide equitable access to parks and recreation facilities, healthy foods, and community-serving facilities.
- F.2. Address public health in all stages of planning for the impacts of natural disasters, including hazard mitigation, adaptation, and response/recovery.
- F.2.1 Reduce exposure to health risks from hazards.

- F.2.2 Anticipate climate impacts on health, assess vulnerabilities, and implement adaptation strategies.
- F.2.3 Develop and implement evacuation and emergency response plans.
- F.2.4 Address the social and mental health needs.
- F.3. Apply an integrated equity, health, and climate lens to all phases of the planning process and implementation.
- F.3.1 Integrate equity, health, and climate change considerations into all components of the planning and implementation.
- F.3.2 Build relationships among planners, public health professionals, and other relevant disciplines.
- F.3.3 Apply tools such as Health Impact Assessments, Health Lens Analysis, and Healthy Community Checklists.
- F.3.4 Support policies linking public health to planning.
- G. Responsible Regionalism
- G.1. Foster regional cooperation and collaboration on climate action.
- G.1.1 Develop a regional climate action and resiliency plan.
- G.1.2 Factor local opportunities, needs, and priorities into regional planning and decision making.
- G.1.3 Leverage federal, state, philanthropic, and academic resources.
- G.1.4 Utilize education, tax and fee policy, and other economic incentives to influence the purchasing and location decisions.
- G.1.5 Support development of regional planning funding mechanisms and governing authorities.
- G.1.6 Support and sustain multiregional and multistate stakeholder coalitions.
- G.2. Link regional climate goals on housing, economic development, and transit to define growth areas.
- G.2.1 Maximize use of existing transit.
- G.2.2 Invest in transit strategically.
- G.2.3 Develop transit-oriented communities.
- G.2.4 Foster collaborative regional-local partnerships between governments and transit agencies.
- G.2.5 Define and serve growth areas by transit.
- G.3. Connect communities with regional transportation options.
- G.3.1 Invest in technologies to reduce GHG emissions.

- G.3.2 Implement "last-mile" transportation options.
- G.3.3 Include nonmotorized transportation options.
- G.3.4 Make available a range of public and private transportation options.
- G.4. Link Local Open Space Plans with Regional Green Infrastructure.
- G.4.1 Use tree biomass to manage atmospheric heat loads and absorb carbon.
- G.4.2 Assure local access to nature and outdoor experiences.
- G.4.3 Retain biodiversity within natural systems.
- G.5. Connect local and regional housing initiatives.
- G.5.1 Utilize local housing policy and incentives to foster green building.
- G.5.2 Prioritize and incentivize local infill housing and development around transit nodes.
- G.5.3 Utilize housing policy to assure the equitable distribution of affordable housing regionwide.
- G.6. Plan for economic development that balances community needs and regional climate strategy.
- G.6.1 Support growth and workforce training in green industries.
- G.6.2 Create experience-rich communities that help achieve key climate adaptation objectives.
- G.6.3 Plan for a range of climate-friendly housing types.
- G.7. Coordinate local and regional plans for transportation, water, waste, and energy infrastructure.
- G.7.1 Advocate for resource efficiency and reduce GHG production region-wide.
- G.7.2 Electrify regional public transportation and utility fleets.
- G.7.3 Adopt new technologies that reduce the ecological harm of regional transportation systems.
- G.7.4 Incentivize the use of cost-effective, energy-efficient building technologies region-wide.
- G.7.5 Engage leaders of the power-generation sector and water and waste management industries in regional climate planning processes.
- G.7.6 Incentivize and/or require all waste and emissions reductions.
- G.7.7 Promote watershed planning for water resources.
- G.8. Coordinate regional digital connectivity and infrastructure.
- G.8.1 Create efficiencies through digital technology solutions in energy, manufacturing, agriculture, land use, buildings, services, transportation, and traffic management.

- G.8.2 Utilize information technology advancements to improve the efficiency, security, and accessibility of shared climate-related information.
- G.8.3 Support tech tool innovations that lend themselves to high-speed digital infrastructure across a region, and that can offer both a regional and local scale of information.
- G.8.4 Foster partnerships with universities, private labs, nonprofit organizations, and federal research and development funding programs.