

Plan Contents

- ▶ **Introduction** Introduction to Plan
 - Letter from Erin Wortman and Marc Draisen
 - Introductory MC2050 Video
 - Values Statement: Including Racial Equity

- ▶ **Action Areas** Defining Action Areas
 - Action Area Narratives: Context & Leverage Points: Introduction, Vision, History, Challenges, Recommendations, Art Piece:
 - Climate Change Adaptation & Mitigation
 - Dynamic & Representative Government
 - Equity of Wealth & Health
 - Homes for Everyone
 - Inclusive Growth & Mobility

- ▶ **Goals** Introduction
 - Vision, Goals, Subgoals and Selected Indicators:
 - Getting Around the Region
 - Homes for All
 - A Climate-Resilient Region
 - A Net Zero Carbon Region
 - A Healthy Environment
 - Dynamic & Representative Governments
 - Economic Security
 - Economic Prosperity
 - Healthy & Safe Neighborhoods
 - Thriving Arts, Culture & Heritage
 - Living Together Short Film

- ▶ **Recommendations** Introduction
 - Narrative: Recommendations

- ▶ **Scenario Planning** Introduction
 - Scenario Process & Engagement: Advisory Committee & Driving Forces
 - Workshop Series
 - Demographic & Economy Key Uncertainty
 - Transportation Key Uncertainty
 - Federal Policy Key Uncertainty

► **Research Agenda** Introduction

- [Greater Boston’s Local Planning Priorities](#)
- [Surging Seas, Rising Fiscal Stress: Exploring Municipal Fiscal Vulnerability to Climate Change](#)
- [Climate Vulnerability in Greater Boston](#)
- [Crowded in and Priced out: Why it’s so Hard to Find a Family-Sized Unit in Greater Boston](#)
- [Zoning Atlas](#)
- [Housing Submarket Typologies](#)
- Retrofitting Suburbia (*not yet released*)
- Speculative Housing Investment (*not yet released*)
- [Perfect Fit Parking](#)
- [First Miles: Examining 18 months of Dockless Bikeshare in Metro Boston](#)
- [Research: The Diversity Deficit](#)
- [Residential Displacement](#)
- Industrial Displacement (*not yet released*)
- [E-Commerce](#)
- Future of Work (*linked in Scenario Narrative – not yet released*)
- Normative Modeling (*not yet released*)
- Projections (*not yet released*)

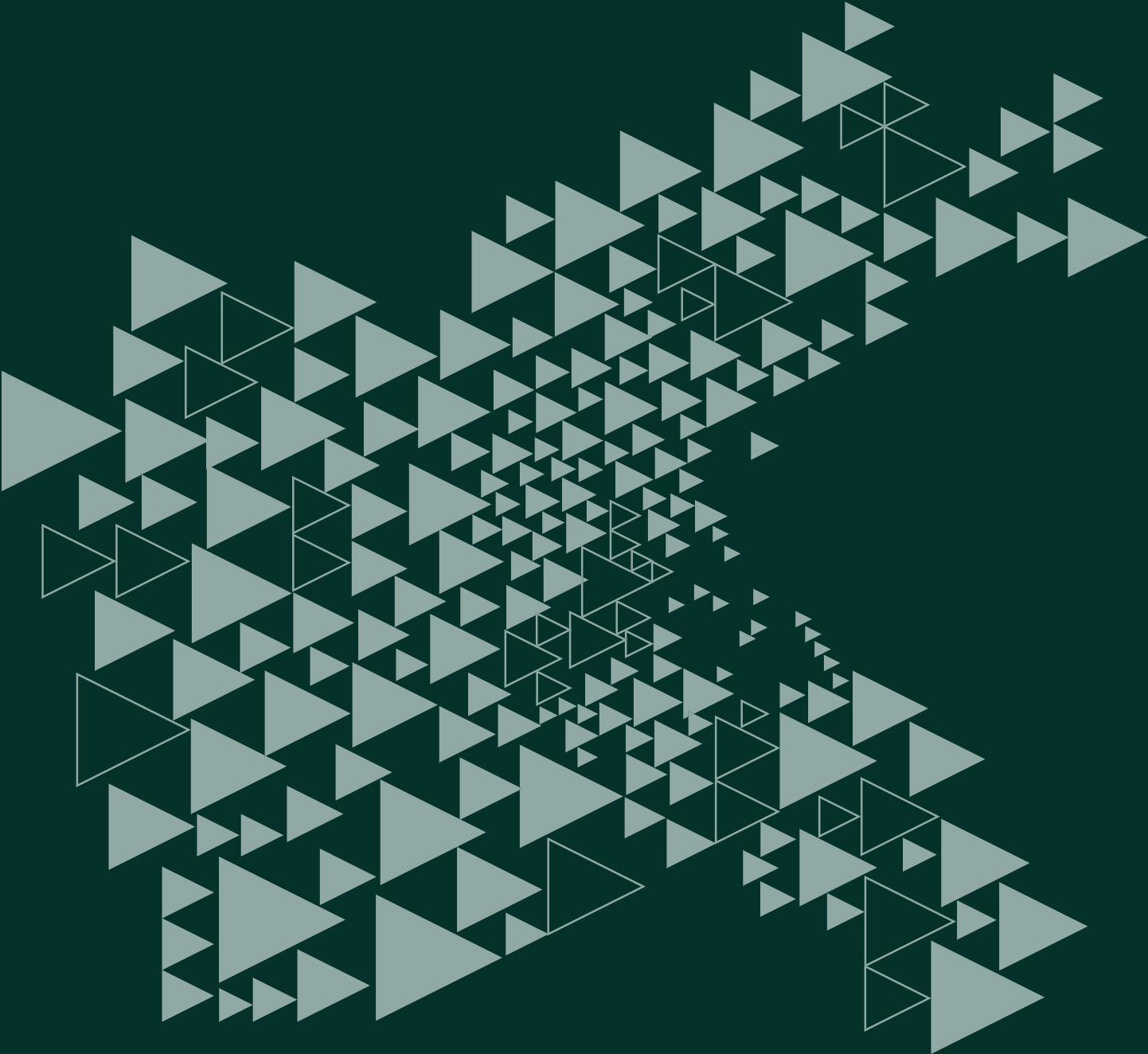
Links to other MAPC Guidance

- [LandLine: Our Plan for a Connected Greenway Network](#)
- [Net Zero Playbook](#)
- [Get it Rolling: A brief guide to mobilize improvements in Greater Boston](#)
- [Arts & Planning Toolkit](#)

► **Appendices** Process Timeline & Engagement Description

- [Public Comments Database](#)
- Local Plan Review
- A Review of Relevant Statewide and Multi-jurisdiction Plan
- Acknowledgements

MetroCommon 2050
Greater Boston's long-range regional plan
Led by the Metropolitan Area Planning Council (MAPC)



Welcome to MetroCommon 2050, Metro Boston’s regional long- range plan!

Metropolitan Boston is home to a vibrant, diverse population of five million. We’re a hub of innovation and tradition, of learning and culture, of sports, of history, of medicine – and that just scratches the surface. We also face big challenges, including the cost of housing and a changing climate. MetroCommon 2050 is a road map for meeting those challenges. And for launching the region into a more equitable and resilient future.

MetroCommon is a land-use and policy plan designed to be used. It looks at how issues affect residents and workers throughout our region of 101 cities and towns. It offers actionable policy recommendations and useful research and tools. And every aspect of the plan, from goals to analysis, has been vetted by people who live here, very much including people from historically marginalized communities.

Please delve into the MetroCommon material and share it widely. Let us know what you think and what else you’d like to know. But most of all, put it to work. Together, we can build the future we want. But to get it, we have to act. It won’t be easy, but it’ll be worth it. Let’s shape the region together!



A message to the people who live and work in Metropolitan Boston

In 2008, we adopted our last regional land use and policy plan, MetroFuture, and it guided our work for over a decade. Although many MetroFuture recommendations have been implemented, the region still faces many of the same big challenges: increasing disparities in income, wealth, and health by race, a lack of affordable housing, growing negative impacts of climate change, and an overburdened transportation system. Our new plan, MetroCommon 2050: Shaping our Region Together, attempts to confront these threats and delineates a path to work together to create a more sustainable and equitable region.

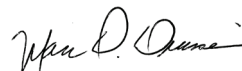
Developing a roadmap for the region during a pandemic and racial reckoning has not been easy. However, we believe it has both strengthened and humbled us in important ways, leading we hope to a stronger guide to the future. When we began this plan, no one had heard of COVID-19 and few knew who George Floyd was. We have experienced great political, social, and economic upheaval in the past year. Many lives have been lost and the economic dislocation has hit women, service workers, and people of color particularly hard across the nation and right here in Greater Boston. Last summer, thousands marched for racial justice. Last winter, we experienced a polarizing election and a failed attempt at insurrection. These global, national, regional, and local events are affecting us all and have shaped this plan. MetroCommon is a 30-year plan for building a more equitable and more resilient region, but it is also a plan that identifies historic exclusion, oppression, and unfairness that continue today. It offers actionable recommendations for ensuring that our recovery is equitable and places our region on a trajectory to reach our shared, long-term goals.

MetroCommon is about hope for the future. At the very beginning of this planning process, the first questions we asked people were, “What do you hope for the future? What kind of region do you want for yourself, your children, and the next generation?” We turned those responses into the vision and goals of the plan. We explored the possible barriers against reaching those goals, including future uncertainties like changes in transportation technologies and demographics. And then we identified what we can do, together, to work towards the future that we all want. Together we have the power and ability to be the change that we desire.

We look forward to working with you to build a more equitable and resilient region.



Erin Wortman
President



Marc Draisen
Executive Director



What are values?

These values are the characteristics of the region we want to become. They shape MAPC's approach to our work and allow us to assess and prioritize the projects and policies we pursue.

What purpose do values serve?

- ▶ Values are an organizational consciousness that we implicitly use while making decisions
- ▶ Values act as a tool that we used to create and assess MetroCommon activities, goals, content, and recommendations
- ▶ Values provide context to potential and current partners regarding MAPC's priorities and decision making

The Values

Equity: The condition of fair and just inclusion into a society. Equity will exist when those who have been most marginalized have equal access to opportunities, power, participation, and resources and all have avenues to safe, healthy, productive, and fulfilling lives. It requires restructuring deeply entrenched systems of privilege and oppression that have led to the uneven distribution of benefits and burdens over multiple generations.

Resilience: The capacity of communities, organizations, and natural systems to respond, adapt, and flourish no matter what chronic stresses and acute shocks they experience.^{1,2}

Prosperity: The opportunity for all individuals as well as communities to thrive and provide for themselves in meaningful and fulfilling ways.³

Stewardship: Our collective responsibility to maintain, invest in, and protect the quality of our natural, built, and social environments to support healthy and happy people and conserve environmental, economic, social, and cultural assets.

Commitments

If values help ensure that we become the region and the organization we aspire to be, commitments are processes for getting there. They are efforts to ensure that innovation, collaboration, and objectivity are present along our journey to embody our values.

Creativity: We will strive to approach our work with creativity and encourage creativity in both our process and outcomes. We view creativity as the spark of imagination, playfulness, and spirit of open-mindedness in envisioning our collective future. Creativity yields inspiration from novel connections, insightful visions, and the ability to plan for the future with inventiveness so we can ensure that our resources are used sensitively and with purpose.

1 https://www.uh.edu/cdi/diversity_education/resources/pdf/terms.pdf

2 Adapted from <http://100resilientcities.org/resources/#section-1>

3 The ability to recover from setbacks, adapt well to change, and keep going in the face of adversity <https://hbr.org/2015/01/what-resilience-means-and-why-it-matters>

Partnerships: We will center our planning process and implementation strategies on partnerships, defined as the committed, collaborative relationship and shared contributions among individuals, organizations, and municipalities that seek to deliver practical solutions in response to societal issues.

Data-driven & evidence-based: Where possible, we will collect and analyze data, extract patterns and facts from that data, and utilize those facts to make inferences that influence decision-making.⁴

⁴ <https://www.northeastern.edu/graduate/blog/data-driven-decision-making/>

Throughout MetroCommon we have strived to place equity at the center of this plan. We developed the plan's recommendations by working closely with partners who are leading voices for creating a more equitable and resilient region. We sought feedback from residents most likely to be impacted by the policy and programmatic decisions made in the future. The Equity of Wealth and Health Action Area dives deeply into two aspects of unequal and inequitable outcomes found in our region. The other four Action Areas are devoted to other significant challenges facing Metro Boston, but they too seek to address the disparities that exist within those topics. Just as it will take the work of many partners and allies to implement MetroCommon, it will also take many partners and allies to fashion a more equitable region. We look forward to supporting their efforts and continuing to learn and work toward a more equitable and resilient region. A Greater Boston region that supports and serves all residents and workers is possible!

Achieving an equitable future requires acknowledging the inequities of our past and present. Since the colonization of what is now the United States, much of our country's wealth has derived from the dispossession of native populations and economic exclusion of low-income and BIPOC communities. This exclusion and oppression have continued over the centuries through our economic systems as well as through governmental policies and programs. Of course, our nation's history included the enslavement of Black Americans, followed by almost a century of Jim Crow. The federal and state governments established and maintained disparities based on race and ethnic background through policies and programs that enforced segregation in neighborhoods, at the workplace, and in schools. Even today, many labor, environmental, housing, educational, and health care systems include remnants of programs that ensure the opportunities and outcomes for BIPOC will be worse than for Whites.

Greater Boston has its own particular history of oppression and exclusion based on race, ethnicity, gender, religious beliefs, and sexual orientation. State, local, and regional governments have played a role through land use and other policies that directly or indirectly advanced oppression and exclusion, and some of these policies remain in force today.

Our region encompasses lands that are the original homelands of the Wampanoag, Nipmuc, Abenaki, and Massachusetts tribal nations. The painful history of genocide and forced removal from this territory is infrequently taught by modern day curricula. And harm and erasure continue to be perpetrated against Indigenous people to this day.^{1,2}

1 O'Brien, Jean. *Firsting and Lasting: Writing Indians out of Existence in New England*. Minneapolis: University of Minnesota Press. 2010.

2 Gould, Rae. *The Nipmuc Nation, Federal Acknowledgment, and a Case of Mistaken Identity. In Recognition, Sovereignty Struggles, and Indigenous Rights in the United States. A Sourcebook*. University of North Carolina Press. 2013.

Residents of African descent have experienced a painful history as well. From the history of slavery to the practices of redlining, school segregation, and environmental injustice, Black residents have been intentionally excluded from the freedoms, privileges, and neighborhoods enjoyed by Whites. Even after realizing the same legal rights as Whites, Black residents continue to face systematic racism and economic exclusion. In Metro Boston, such policies have led to the stark differences in health and wealth outcomes at the zip code level.

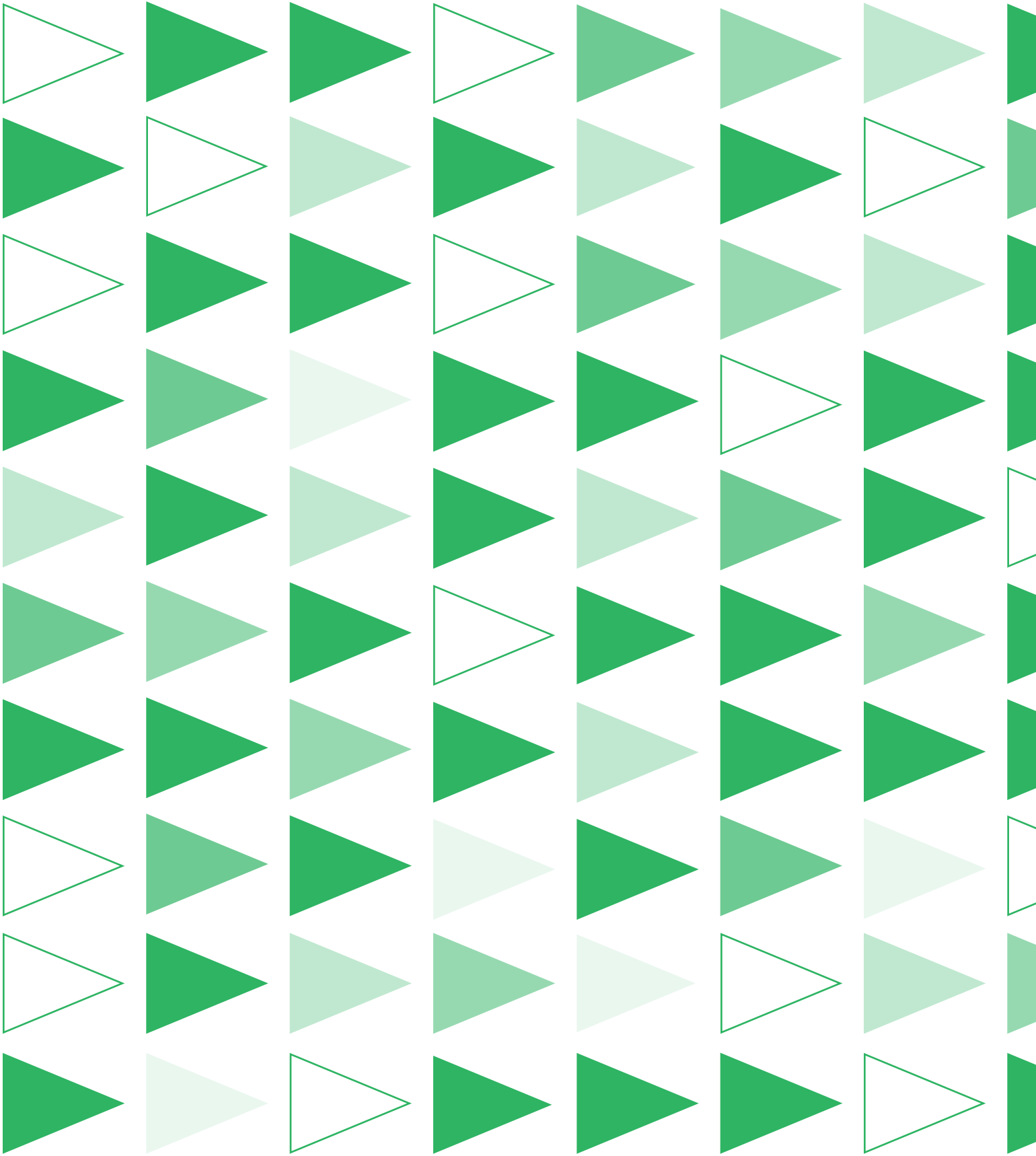
Many of the disparities Black residents currently experience in wealth and income, health, educational, and safety are similarly shared by other BIPOC populations, notably Latinx residents. (www.regionalindicators.org) In addition to systemic oppression and exclusion, violence and intolerance also operates on the individual level. This past year we have experienced national and regional increases in hate crimes and violence targeting Asians and members of the Jewish faith.

The planning field has played a complicit role in the nation and region's history of oppression and exclusion. Land use, transportation, and housing policies have led to the segregation and unequal access to opportunity that persist today. MAPC acknowledges that we are part of this system that has caused harm and are committed to doing our best to undo the practices and policies that lead to oppression. In 2015 as part of a strategic planning process, we adopted four strategic priorities. One of them is to advance equity, including a special emphasis on racial equity, in our work. While we have made strides in this work, we realize that, like many in our field, we are early in our journey and we approach this work with humility and a willingness to learn. To meet our commitment, we believe that we need to partner with - and support- allies and leaders in this work and to center the voices of those most impacted in our projects and in our advocacy campaigns. This work is rooted in long term relationship- and trust-building, which we understand will take time and resources. We are committed to prioritizing this work and helping to dismantle inequitable systems to create a Metro Boston where all can succeed.

The COVID-19 pandemic has brought even greater clarity and understanding of how some populations are at greater risk of public health and economic devastation and insecurity. This crisis compounded the already existing vulnerabilities facing particular residents and workers. Residents of nursing homes, those incarcerated, older adults, people of color, and low-income service and gig workers were disproportionately affected by death, illness, and unemployment during the pandemic. It is promising that federal and state priorities for use of recovery funds are prioritizing equity. However, we have to make sure that the voices of those most impacted by COVID-19 have an impact on how these funds are allocated. This is a once in a generation opportunity to begin addressing both the long-standing disparities and more acute impacts that the pandemic inflicted on certain populations. MetroCommon2050 goals and recommendations strive to be in line with this goal, but success can occur only through implementation, not planning.

MetroCommon × 2050

Goals



The MetroCommon 2050 Goals

It's very difficult to get anywhere if you don't know where you're heading, so developing goals was the first thing we did in the MetroCommon process. We ensured the goals are true to what we heard when we asked residents what they wanted the region to be like in the year 2050. We strove to make them bold, yet achievable, concrete not theoretical.

The goals are not tied to any political climate, state of technology, or any other general trend. They don't point to specific solutions: for example, they don't identify who should provide health care or how, just that everyone has it and that it's affordable. They reflect the values of the plan, which are equity, stewardship, resiliency, and prosperity. The goals paint an idealized future: the plan's recommendations provide a roadmap of how we can get there

The Goals Process

The first draft of the MetroCommon 2050 goals emerged from a thorough reassessment and restructuring of the goals of the region's 2008 long-term plan, MetroFuture. That plan was created with an immense amount of help and input from residents and experts alike.

While we brought the MetroFuture goals up to date, we toured the region, asking residents, planners, and municipal and state leaders what they wanted life in the region to be like in the year 2050. We cataloged those visions, identified themes, and incorporated them into the draft of the updated goals.

MAPC staff reviewed that first draft, adding context and refining terms and concepts. Next, the MetroCommon 2050 External Advisory Committee, a committee of stakeholders MAPC selected to guide our decision making throughout the regional plan update, provided feedback. We produced a second draft of the goals and turned them into a survey that allowed respondents to rate the goals, provide feedback on them, and propose new ones. We sent the survey out over social media, we included it in our newsletter, we asked for responses from partners and for our partners to forward it to their partners. We grouped the 600+ responses into themes and incorporated them into a third draft.

The External Advisory Committee recommended that the last draft be sent to MAPC's Executive Committee for approval. On June 17, 2019 the Executive Committee provisionally approved the goals. We continued to gather feedback on the goals through May 2021 before finalizing them over the summer of 2021.



Goal A: Getting Around the Region

Traveling around Metro Boston is safe, affordable, convenient, and enjoyable.

In 2050, the ways we get around are reliable, adequately-funded, and well maintained. Travel is safe, efficient, pleasant, and affordable to all households regardless of income. New transportation technologies and services operate on our roads, underground, and on the water. These new travel options help alleviate congestion and pollution, rather than adding to it. Public transit and shared trips are often more convenient and affordable than solo trips. Auto congestion still exists, but it is predictable and avoidable.

People with mobility limitations and those without a car can get around easily, and can afford to do so. Low-income residents and residents of color enjoy high quality transit to more parts of the region, improving access to opportunity. People of all ages walk or bike more frequently for short trips because conditions make that option safe and enjoyable. The transportation system has a minimal impact on the local and global environment, with reduced pollution and runoff, drastically reduced GHG, and less land set aside for roadways and parking.

1. Transit infrastructure is well-maintained and funded, and its capacity is greatly expanded through the improvement of existing service and the strategic addition of new service so that daily travel is convenient, pleasant, and reliable. The transit system provides more opportunity for circumferential travel throughout the region and reverse commutes between the inner core and suburbs.
2. The transportation system is designed and operated to ensure access to opportunity for everyone, with a particular emphasis on neighborhoods historically underserved by high quality transit.
3. Local land use policies and new development support increased mobility by encouraging concentrated growth around transit and the services people need.
4. Bicycle, pedestrian, and other personal mobility infrastructure is safe, extensive, high quality, and linked to other modes, so that people frequently use active transportation as a preferred mode of travel.
5. Transportation options in the region are net zero for carbon emissions, contributing to improved air quality and reducing negative climate impacts.
6. Public and active transportation options are affordable for those least able to pay.
7. All modes of transportation, including innovative technologies, are safely integrated resulting in few transportation-related injuries and zero fatalities annually.
8. State and local governments work together with businesses and property owners and advocates to create seamless travel throughout the region, including “first mile, last mile” connections.



Goal B: Homes for All

All residents of Metro Boston have places to live that meet their needs, and that they can afford.

Our shared vision imagines a future where all residents have safe and comfortable homes that they can afford in the communities that they prefer. A future where housing is available that meets the needs of the population, regardless of their stage of life, family size, income, or mobility barriers. A future where homelessness no longer exists. Some dream of becoming homeowners and others are happy to rent because their rental prices are stable and predictable. If we succeed in reaching our goals, those that want to buy a home will be able to and no renter or owner will have to pay more than 30% of their income on housing expenses. We also imagine a region that is less segregated, where our communities more closely reflect the demographics of the region as a whole. Homes in the future will be deeply energy efficient, even producing electricity that can feed back into the grid.

1. Everyone has a home; homelessness is essentially nonexistent.
2. Available housing meets the needs of residents throughout their lifetime as they form families, age, and experience unforeseen circumstances.
3. New housing is built primarily in walkable neighborhoods that have easy access to the goods, services, public transportation, and amenities needed in daily life; enough new housing units are built in all communities to help moderate prices and meet the needs of our growing economy and population.
4. New and existing housing, including deed-restricted units and naturally occurring affordable housing, are available at a range of prices that correspond to residents' income levels.
5. Households with extremely low incomes are able to find housing they can afford, with rental assistance providing support to those who qualify.
6. Communities welcome new residents and have enacted policies and programs that avert displacement resulting from rent increases, evictions, condo conversions, foreclosures, and loss of deed-restricted housing.
7. People have access to credit and counseling that allows them, if they wish, to buy suitable homes in locations they desire, including in or near the communities where they work.
8. Neighborhoods more closely reflect the racial and income diversity of the region; residents can choose their community based on preference and opportunity, without being limited by historic segregation patterns throughout the region.

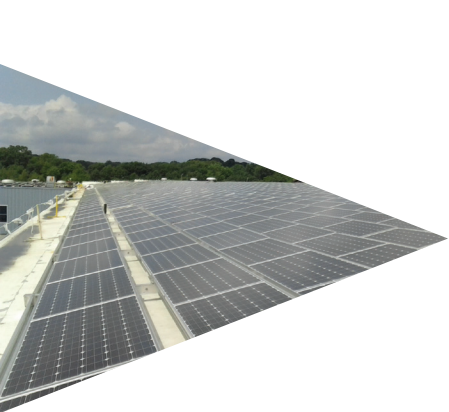


Goal C: A Climate-Resilient Region

Metro Boston is prepared for → and resilient to ← the impacts of climate change.

In 2050, the Metro Boston region is prepared for the extremes of a changing climate. We are prepared for more high-heat and extreme-cold days, increased rainfall, extended periods of drought, stronger storms, and a rising sea. Homes, schools, workplaces, facilities storing or producing hazardous materials, and infrastructure are located away from serious threats or are designed to withstand them. When major climate events interrupt critical services, the response is managed to minimize disruption and speed recovery. People have the resources, networks, and supports to withstand climate emergencies and to recover when disaster strikes. Older adults, children, residents with lower incomes, Environmental Justice communities, and other vulnerable populations can live safely and fully enjoy outdoor activities. Neighborhoods are designed and improved to protect the health of residents, with ample shade, drainage, and green space. Wetlands, water bodies, forests, and plant and animal communities are restored and protected, and are able to adapt to climate change impacts.

1. Residents and workers, especially those most vulnerable to climate impacts, live and work in neighborhoods designed to minimize climate-related health effects such as asthma, heat-related illness, and other diseases.
2. All neighborhoods and municipalities have updated emergency response and communication plans in anticipation of climate-related emergencies. Communities have adequate supplies, trained professionals, and volunteers ready to respond in a coordinated and effective manner.
3. Critical systems, including energy supply and distribution, communications, water, and transportation are designed to continue functioning during, or quickly rebound after, severe storm events.
4. New homes, institutions, businesses, and hazardous facilities are built away from ecologically sensitive areas or areas vulnerable to climate impacts, or they are built in such a way as to withstand those impacts. Existing homes, institutions, businesses, and hazardous facilities in the most vulnerable locations are relocated or modified to absorb impacts.
5. Green infrastructure beautifies neighborhoods. It is included in all developments, providing multiple co-benefits, such as stormwater filtration, shade, cleaner air, carbon storage, and cooling.
6. Vulnerable populations affected by climate-related events like storms, floods, or droughts are able to avoid major financial, educational, and social disruptions, and are supported in their decisions to move out of harm's way or to make their properties more resilient.



Goal D: A Net Zero Carbon Region

The Metro Boston region is highly energy efficient and has reduced its greenhouse gas (GHG) emissions to net zero.

In 2050, Metro Boston is deeply energy efficient and climate-smart. We power our communities, buildings, and vehicles with renewable energy. The region benefits from having made deep cuts in GHG before 2030, and reaching net zero emission by 2050, as part of the state and global effort to avoid the worst impacts of the climate crisis. Making zero-emissions choices for food, clothing, and other goods is easy, affordable, and convenient for everyone. The public health, resiliency, and other benefits of a net-zero carbon future are distributed equitably, lifting up all communities, particularly those who had historically borne greater burdens. The new energy economy is affordable, even for those with limited incomes or other economic burdens.

1. Energy demand is significantly reduced and energy efficiency is maximized across the region.
2. Affordable carbon-free energy powers our modernized and smarter electricity grid, and heating and cooling are fully decarbonized.
3. Renewable energy, including centralized, district-scale, and distributed generation and storage composes the region's primary sources of energy.
4. All new construction and major renovation projects meet net zero emissions standards for heating, cooling, and electricity needs by 2030. Existing buildings meet this standard by 2050.
5. All land travel in the region is by carbon-free modes including walking, biking, electrified public transit, and electrified passenger vehicles. Air, heavy-duty freight, and marine transportation have significantly reduced carbon emissions, and are providing carbon offsets.
6. The "Green Economy" supports local workforce development, entrepreneurs, and living wage jobs that foster more widespread economic opportunity.
7. The benefits and impacts of new energy infrastructure are distributed equitably across the region, with all groups benefiting and no location or population bearing a disproportionate burden.



Goal E: Dynamic and Representative Governments

Local governments and regional agencies have the capacity and resources to deliver the services and supports our residents deserve, and to maintain and invest in our built and natural environments.

In 2050 we imagine a future where all governments are forward-looking, collaborative, able to adapt to changing circumstances, and inclusive. Creative partnerships are formed across governments and with non-governmental institutions to address our region's challenges. Local, regional, and state governments are able to manage our vital assets such as transportation, water and wastewater, and our parks. Governments provide a meaningful opportunity for their residents to participate and share in decision-making.

In 2050, local governments work together often across municipal lines. Elected leadership and staff reflect the region's diversity. Everyone can participate and take part in decision-making. Municipalities and regional entities are structured, sized, and have the capacity to address significant land use, mobility, and sustainability challenges effectively. They have the financial resources to address both our regional and local needs and the flexibility to raise the funds they need to accomplish that goal. Governments and health, educational, social service, and commercial enterprises act as partners, systematically supporting the region's residents. The Commonwealth provides the guidance, incentives, and support needed to achieve the goals of the region and its local communities. All levels of government work together to make Metro Boston one of the healthiest, best educated, most equitable and resilient regions in the world.

1. Cities and towns receive the federal and state revenue they need to support critical services, including schools, public safety, and transportation, and to ensure equity among communities.
2. Cities and towns have greater flexibility to modernize their governance and to raise funds needed to address local issues, and they are careful stewards of these funds.
3. Historically underrepresented populations work, volunteer, vote, serve in leadership positions, and are empowered in public decision-making.
4. Complex policy issues, data, and processes are made accessible to and understandable by the public through better information design, technology, and educational programs.
5. The Commonwealth provides cities and towns meaningful incentives to collaborate with each other in planning, procurement, and delivery of local services, including regionalization and consolidation where appropriate.
6. Cities and towns form creative partnerships with health, education, and commercial entities in their communities.
7. Municipalities work together and with regional government to plan for, coordinate, and fund vital functions such as land use, transportation, housing, water, and energy.



Goal F: A Healthy Environment

Greater Boston's air, water, land, and other natural resources are clean and protected – for us and for the rest of the ecosystem.

In 2050, our air is pure, indoors and out. Our cities and towns are healthy, with beautiful parks and natural areas accessible to all. And our cities and neighborhoods are quieter, with less polluting and more efficient transportation technologies. Contaminated sites are cleaned up and turned to new uses. There is less waste overall, but unavoidable waste produces energy, fertilizes soil, or is reprocessed. We have enough fresh water from our wells, streams, and reservoirs to meet the needs of people and wildlife. Our farms and fisheries produce plentiful and healthy yields, and are sustainable. Habitats, forests, wetlands, and other natural resources are protected and enhanced.

1. Water is clean and sustainably managed. Waterways exceed Clean Water Act standards and meet the appropriate needs of residents, industry, forests, farms, and wildlife.
2. A robust network of protected open space, waterways, farms, parks, and greenways provide wildlife habitat, ecological benefits, recreational opportunities, and scenic beauty.
3. Farms, fisheries, community gardens, and natural landscapes are prevalent, and able to adapt and thrive in the face of the changing climate. They offer residents access to fresh, affordable, healthy, and local food.
4. Populations who experienced historic environmental injustices enjoy air, energy, and water as clean as any other residents enjoy.
5. The region produces very little solid waste. What it does create is reused, composted, recycled, or turned into energy within the region.
6. Few contaminated sites exist. Former contaminated sites have been redeveloped to create jobs or homes, or restored to support green infrastructure and habitat, and to mitigate climate impacts.
7. The use and exposure to toxic chemicals have been greatly reduced in manufacturing, products, and throughout the environment.



Goal G: Economic Security

Everyone has the financial resources to meet their needs and to live fulfilling lives.

In 2050, residents of Metro Boston can provide for themselves and their families throughout their lives. Workers earn wages that support healthy lifestyles, access to opportunities and stable homes, and allow for education, emergency savings, and retirement. Those in need receive services and supports from both public and private sources. Populations that have historically lacked or been denied wealth are now as likely as others to build wealth and pass it on. Employers provide job stability with “family first” policies. Young children have safe, affordable, and nurturing environments in their early years. Students thrive in high quality schools that prepare them for fulfilling work and life. Adults who want to expand their skills can find convenient and affordable higher education and training programs.

1. Residents have enough wealth – or access to public or personal safety nets – to allow them to withstand economic disruptions, provide for post-secondary schooling, and retirement.
2. The educational system is desegregated. Educational funding and resources are equitably distributed across the region.
3. Employers, community-based organizations, the K-12 and higher educational systems, and government agencies collaboratively manage a successful workforce development pipeline that results in fulfilling employment.
4. Employers in the region – combined with appropriate public support and in partnership with labor unions – provide their employees with living wages, affordable health care, reasonable vacation, sick and parental leave time, healthy working conditions, and stable retirement options.
5. Populations that have historically faced unemployment or underemployment – in particular residents of color, low-income residents, women, those formerly incarcerated, older workers, and people with disabilities, find gainful employment earning living wages. There is equal pay for equal work.
6. Government programs no longer have strict cut-offs (cliffs), allowing recipients to increase their incomes and economic mobility without losing all assistance.
7. New economic models, such as cooperatively-owned businesses and Employee Stock Ownership Programs, provide wealth creation and business ownership opportunities, particularly for individuals with barriers to traditional employment and individuals interested in investing in the local economy.



Goal H: Economic Prosperity

Greater Boston's economy benefits all in the region.

The region has a thriving and varied business ecosystem from locally-owned stores to global companies, expanding wealth-creation opportunities for families and individuals throughout the region. Medical, education, and high tech sectors continue to play an important role in our economy. New jobs are located near transit, other infrastructure, and existing services. State and local governments and customers support small and mid-sized businesses, including those that are owned by women, people of color, and immigrants. The region remains a destination for students, entrepreneurs, artists, and innovators from all parts of the world.

1. Policies and programs support the development, expansion, and relocation of small and mid-sized businesses, with a focus on entrepreneurs who are women, immigrants, and people of color.
2. The region has a strong supply of workers through education and workforce development programs that keep up with changing labor demands.
3. Cities and towns work together and with the Commonwealth to attract and retain businesses that provide good jobs and strengthen our region. Incentives are used sparingly and wisely through specific agreements that ensure job creation, infrastructure investment, and municipal fiscal health.
4. Vacant and underutilized commercial and industrial sites are revitalized, and they provide new jobs close to population centers and transit.
5. The region has a job-housing balance so that workers can find homes affordable to them with shorter commutes through strategic development of housing near job centers and commercial districts.
6. Entrepreneurs and new businesses thrive across the region, with significant contributions from small businesses owners and women, minority and immigrant entrepreneurs.



Goal I: Healthy and Safe Neighborhoods

We are safe, healthy, and connected to one another.

In 2050, residents breathe clean air, drink clean water, and eat healthy foods. Across race, ethnicity, immigration status, age, income, and ability, people live longer, healthier lives because they live in neighborhoods that are welcoming and safe, and in homes that are stable and affordable. Racist systems have been dismantled, no longer affecting BIPOC communities. Residents travel through the region conveniently and safely, and they enjoy nearby parks and open space. Neighborhood design promotes social connections and healthy choices. Strong schools, high-paying jobs, and accessible social services help residents lead engaged and healthy lives. Violence, pollution, poverty, and other threats to well-being are rare and actively deterred. Affordable and high-quality medical and behavioral health care, with an emphasis on prevention, is available to all.

1. Exposure to pollution has been minimized: no one lives in a place where air, water, or soil pollution could diminish life expectancy or quality.
2. Through enhanced public health initiatives and investments, the region has reduced the rates of chronic diseases, mental health and substance use disorders, as well as the risks of communicable diseases.
3. People in the region live, work, attend school, worship, and travel without the risk of violence, discrimination, or crime.
4. People in the region have affordable health care, including stigma-free mental health, reproductive health, and addiction treatment and support networks.
5. Healthy food is readily accessible and affordable to all people in the region.
6. Residents have the resources to detoxify, weatherize, and maintain their homes.
7. State and local governments have the resources to maintain their parks, public squares, sidewalks, and open space.
8. The Commonwealth has replaced most incarceration with effective efforts at prevention, rehabilitation, and restorative justice; incarceration rates no longer vary by race.



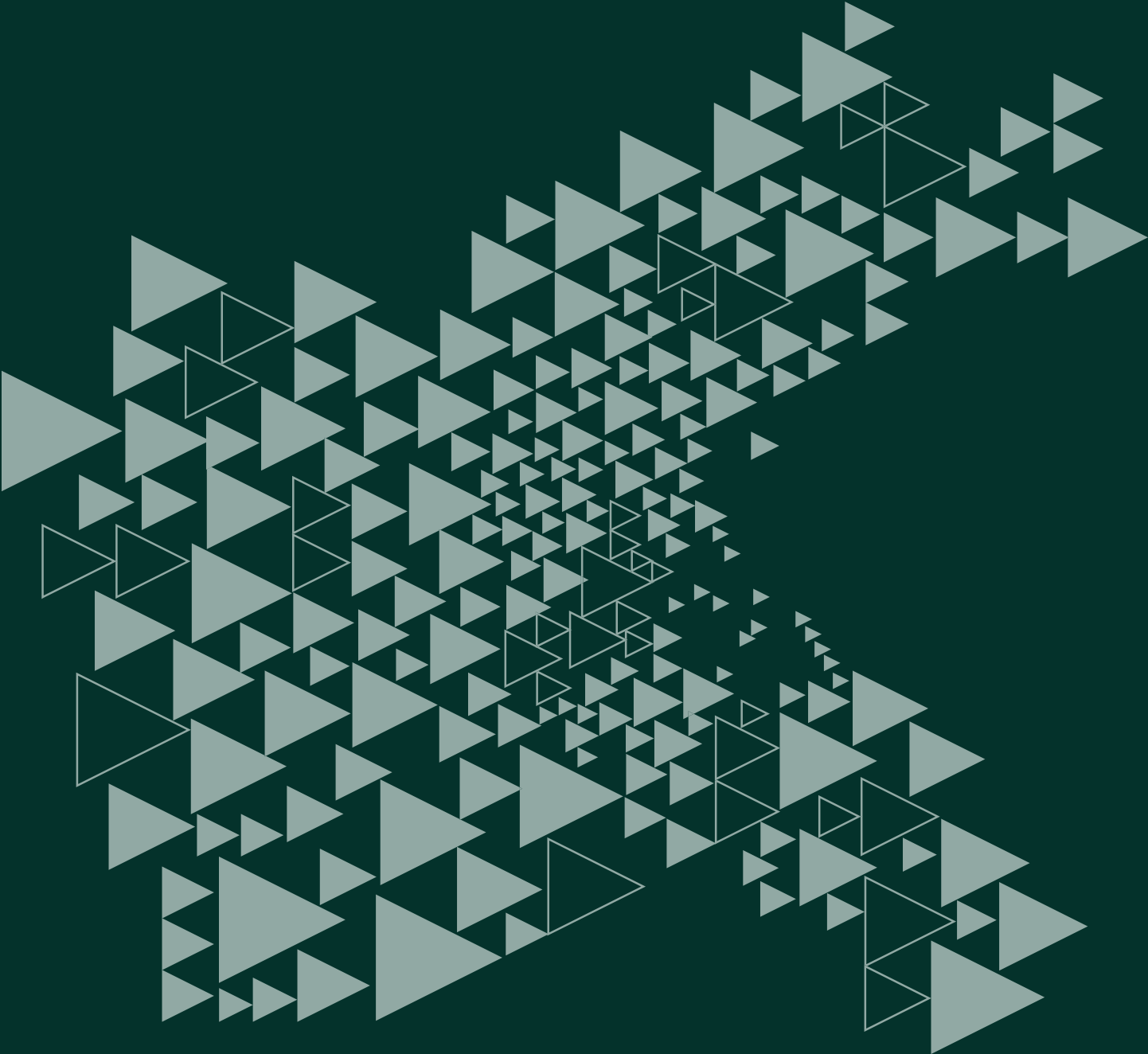
Goal J: Thriving Arts, Culture, and Heritage

Greater Boston is full of unique places and experiences that bring joy and foster diversity and social cohesion.

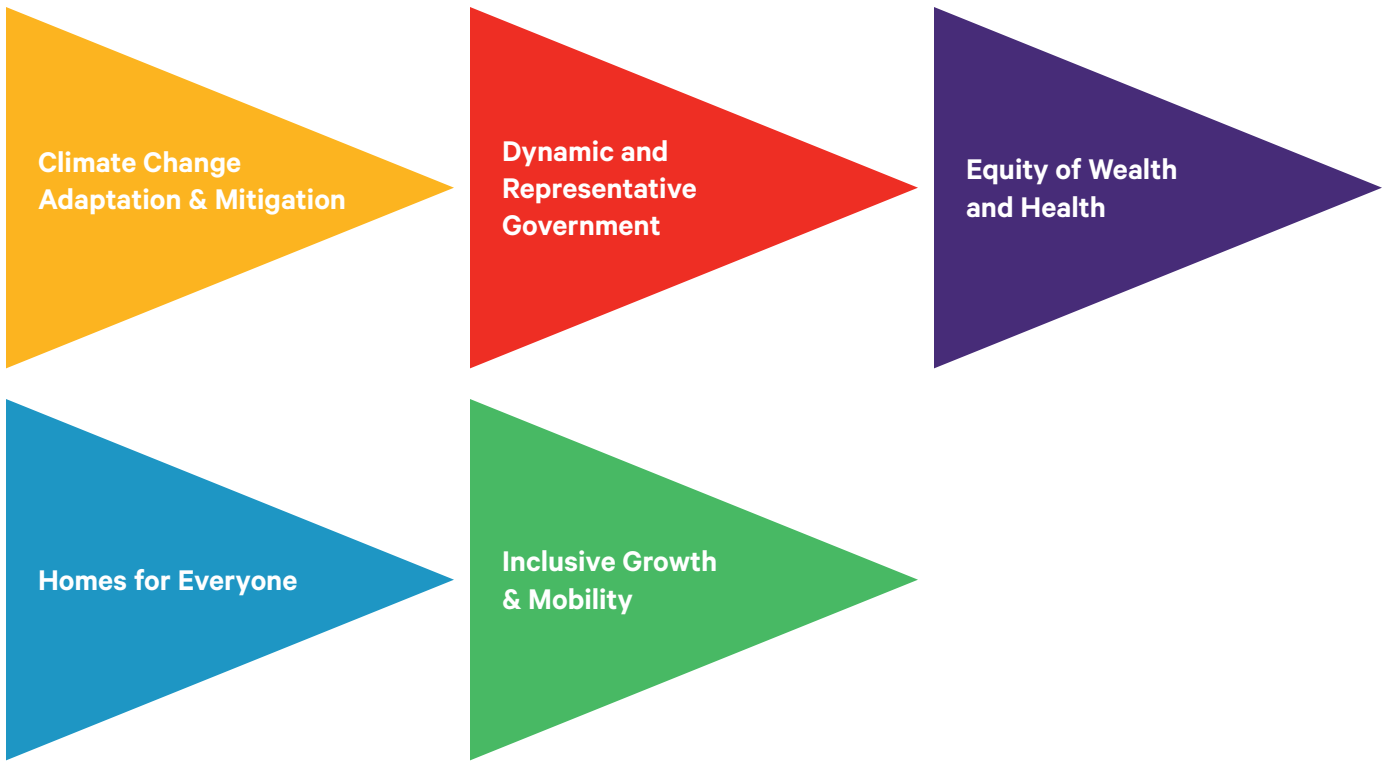
In 2050, residents and visitors of all backgrounds enjoy a wide variety of historical, cultural, recreational, and artistic experiences. Public art, cultural institutions, and social activities reflect our region's diversity and an accurate reflection of history. Residents of all ages, abilities, and incomes have opportunities for creative expression and art education. Public and private funding makes art more accessible to a broader audience. Public programming and urban design encourage opportunities for social and cultural experiences and walkability. This builds social connections and cohesion. New development complements and enhances existing city and town centers. Historic buildings and cultural landscapes that are important for understanding our region's people and cultures are protected or adapted to contemporary needs.

1. People of all ages and backgrounds are able to participate in arts, cultural, and social activities, building community and social cohesion.
2. Public art and programming contribute to our understanding of our region's people, places, and history.
3. Affordable spaces exist for artists to live and work in communities throughout the region, including live/work, maker spaces, light – industrial fabrication facilities, and innovation incubators.
4. Historic buildings, properties, and landscapes are adapted to meet contemporary challenges, including climate, housing, accessibility, and recreational needs.
5. Historic preservation efforts document and preserve the full range of cultural heritage in our region.
6. Urban design, public art, and new development contribute to a human-centered, safe, and delightful public realm.

MetroCommon 2050 × Action Areas
The Plan's Main, Interrelated Topics



MetroCommon 2050 is Greater Boston’s long-term land use and policy plan. Its intent is to make our region more equitable and sustainable. To achieve this, the region will need to grapple with five systemic problems. Because these interrelated topics will require sustained action and substantive change, we’re calling them “Action Areas.”



These Action Areas are so critical that we provide explanations of their workings in several forms: in overview, in greater depth, and in accessible art pieces. Action Areas also form the organizing principle for the plan’s recommendations.

More about the Action Areas

The Action Areas describe the systemic problems we are facing. They provide context for where and why the recommendations seek to make change. Each Action Area includes:

- ▶ **A narrative** that describes our understanding of the systems shaping these issues
- ▶ **Our shared vision** for the future
- ▶ **How things came to be** this way
- ▶ **Major challenges** for reform
- ▶ Where we think **interventions** can be successfully targeted

What is MetroCommon 2050 and how do the Action Areas fit in?

MetroCommon 2050 is Greater Boston’s long-term plan. It’s about ways the Boston region can become more equitable, more prosperous, and more sustainable. MetroCommon is built on goals – that is, what people have told us they want. It defines Action Areas that give today’s issues context, and that reveal systems that require intervention. It goes deeply into key topics, finding insight in the trends, patterns, and idiosyncrasies of the region: research. The plan thinks through scenarios, looking at how the world and region might change, and how those changes could affect us. And it makes specific recommendations for policy changes that can get us to our goals. The part of the plan you’re looking at now is Action Areas.

How did MAPC get input on the MetroCommon 2050 Action Areas?

Community engagement is a core practice at MAPC. So is the practice of confirming and challenging what we think we know. We “ground-truthed” every component of MetroCommon 2050 with people too often left out of planning processes to make sure the plan was worth implementing.

The MetroCommon 2050 Action Areas were shared for feedback in the following ways:

- ▶ The Action Areas were informed by MAPC’s understanding of key issues facing the region, combined with years of public engagement that asked questions like:
 - What future do you want to see for Greater Boston and what is preventing us from getting there? What are the key challenges and opportunities our region is facing?
 - Where should we, collectively, focus our efforts to generate meaningful change?
- ▶ The Action Area narratives were honed with the help of MAPC staff, the MetroCommon 2050 Community Engagement Advisory Committee [\[link\]](#), the MetroCommon 2050 External Advisory Committee [\[link\]](#), and hundreds of participants from Action Area workshops spanning the summer and fall of 2020. Participants include subject matter experts, municipal and state leaders and staff, youth, community members convened by our mini-grant partners, and interested members of the public.



Climate Change

Climate change is an existential threat facing our region and our world. The planet is warming significantly as a result of human-generated greenhouse gas (GHG) emissions. This is changing our weather system, bringing more frequent and intense storms, extreme temperatures, sea-level rise, and flooding. It's affecting human health and disrupting animal and plant life. It is making the oceans not only warmer, but also more acidic.

These changes are already altering our built and natural environments – food production, land use, transportation, the economy, and health, to name just a few – and the effects will only continue to worsen and grow over time. The more we do now to mitigate climate change and adapt to its effects, the better off we will all be in 2050.

While we are likely unable to reverse these climate-change effects completely, we can reduce their severity and we must prepare and adapt. Climate-change mitigation through energy efficiency, renewable energy, smart growth, clean mobility, natural assets for carbon storage, electrification, and many other measures can reduce current – and avoid future – GHG emissions. These emissions are the direct drivers of climate change, and we know that the best and most up-to-date science, as memorialized by the Intergovernmental Panel on Climate Change, asserts that we must substantially reduce GHG emissions to restrict the increase in global temperature to less than 1.5 degrees Celsius and avoid the most catastrophic impacts of climate change.¹

Clean energy and other climate-smart technologies, systems, and policies – many of which can be deployed or incentivized by cities and towns – are a tremendous opportunity to decrease carbon pollution while also supporting innovation, workforce and economic development, and new models that re-envision and rebuild our communities more equitably.

One of the most compelling justifications for climate action locally is the financial case, both in terms of cost savings from more efficient systems and the opportunity to avoid increased costs from inaction and from impending risk. As a coastal region, we are under threat by sea-level rise. Three feet of rise could cost the region \$104 million in property taxes over 89 metropolitan Boston municipalities.²

Communities further inland are already experiencing increased flooding and extreme heat impacts. And the current and future impacts of climate change will continue to burden some populations and locations more than others. Low-income and BIPOC communities, while contributing the least to the causes of climate change, stand to bear the worst impacts due to systemic inequities that contribute to heightened sensitivity to climate-change impacts, and constrained capacity to adapt.

¹ <https://www.ipcc.ch/sr15>

² Shi and Varuzzo. Surging seas, rising fiscal stress: Exploring municipal fiscal vulnerability to climate change. In *Cities*, Volume 100, 2020.

Older adults and those with certain health conditions are particularly vulnerable. Today in Greater Boston, 13% or over 400,000 residents live in census tracts that have the highest vulnerability. Seven cities in our region are especially at risk: Boston, Chelsea, Everett, Framingham, Lynn, Malden, and Revere. Many of these same communities, not coincidentally, have also experienced some of the worst impacts from the COVID-19 pandemic.

There is much that we can do here locally to reduce and prepare for impacts and lessen the burden on low-income and BIPOC communities. In the last ten years, the Commonwealth of Massachusetts and many of its municipalities have made significant strides to reduce GHG emissions and to initiate the actions necessary to build a more resilient region. And with the Biden Administration prioritizing federal climate action, the prospect for federal resources and pro-climate administrative actions is more promising.

One challenge we will continue to face is coordinating across many sectors and levels of government to take the actions that are needed quickly and efficiently. Behavior changes from all of us will play a large role in our success as well – from decisions about where we live and shop to how we travel.

Vision

- ▶ **In 2050**, the Metro Boston region is prepared for the extremes of a changing climate. We are prepared for more high-heat and extreme-cold days, increased rainfall, extended periods of drought, stronger storms, and a rising sea. Homes, schools, workplaces, facilities storing or producing hazardous materials, and infrastructure are located away from serious threats or are designed to withstand them. When major climate events interrupt critical services, the response is managed to minimize disruption and speed recovery. People have the resources, networks, and supports to withstand climate emergencies and to recover when disaster strikes. Older adults, children, residents with lower incomes, Environmental Justice communities and other vulnerable populations can live safely and can fully enjoy outdoor activities. Neighborhoods are designed and improved to protect the health of residents, with ample shade, drainage, and green space. Wetlands, water bodies, forests, and plant and animal communities are restored and protected, and are able to adapt to climate-change impacts.
- ▶ **In 2050**, Metro Boston is deeply energy efficient and climate-smart. We power our communities, buildings, and vehicles with renewable energy. The region benefits from having made deep cuts in GHG before 2030 and reaching net zero emissions by 2050, as part of the state and global effort to avoid the worst impacts of the climate crisis. Making zero-emissions choices for food, clothing, and other goods is easy, affordable, and convenient for everyone. The public health, resiliency, and other benefits of a net-zero carbon future are distributed equitably, lifting up all communities, particularly those who had historically borne greater burdens. The new energy economy is affordable, even for those with limited incomes or other economic burdens.

- ▶ **In 2050**, our air is pure, indoors and out. Our cities and towns are healthy, with beautiful parks and natural areas accessible to all. And our cities are quieter, with less polluting and more efficient transportation technologies. Contaminated sites are cleaned up and have been turned to new uses. There is less waste. Unavoidable waste produces energy, fertilizes soil, or is reprocessed. We have enough fresh water from our wells, streams, and reservoirs to meet the needs of people and wildlife. Our farms and fisheries produce plentiful and healthy yields and are sustainable. Habitats, forests, wetlands, and other natural resources are protected and enhanced.

How we got here

The industrialization and urbanization of the United States since the late 1800's has been powered largely by fossil fuels. These fuels continue to account for most of our energy generation and transportation fuels, generating unsustainable levels of GHGs and other air pollutants. Our entire modern infrastructure is heavily reliant on fossil fuels – from how we heat our millions of homes to how we power most of our cars. Converting infrastructure dating back more than a half century to renewable and non-polluting sources will take massive investments and behavior changes.

The way Greater Boston has grown, urbanized, and suburbanized has also contributed to increased emissions and a reduced capacity to minimize the negative impacts of climate change. Low-density, auto-dependent suburban growth requires more energy per household and is often farther from public or active transportation. Converting undeveloped lands and filling wetlands to accommodate development has increased impervious surfaces and reduced capacity to absorb and infiltrate stormwater, contributing to increased heat and flood vulnerabilities and water pollution.

We have also built a region that is not particularly resilient. Many aspects of our built and social environments lack the ability to adjust under stress. The levees in New Orleans were not designed to handle the floodwaters of Hurricane Katrina in 2005, which led to catastrophic failure. Had the coastal wetland system been left intact, New Orleans would likely have been spared the worst of the hurricane. Closer to home, the New York metropolitan area of 2012 was poorly prepared to absorb and recover from the impacts of Hurricane Sandy.

Here in Greater Boston, we also have lost or damaged our coastal wetland. Nor is resiliency built into our electric grid and delivery system design. If one part of the system is knocked out of commission, downstream customers also lose power.

Social resiliency also varies dramatically by wealth, race, age, and geography. The COVID-19 pandemic bore out the worst of these disparities. During the pandemic, some people with means temporarily relocated out of the city, and others had the option to drive into work or to work from home. But these options were not available to all. Often, lower-income and BIPOC service workers had no choice but to go to work in person and were among those most hard-hit by COVID-19.

Individuals and communities with the highest barriers to bouncing back after a disaster (due to poor infrastructure and maintenance, less access to information because of the digital divide, and poor public disaster response systems) and those most at risk of severe health complications during disasters (due to age, social isolation, pre-existing health risks, crowded housing conditions, or exposed working conditions) bear the most risk to the impacts of climate change.

Challenges

We face many challenges to realizing a net zero, climate resilient region, but these challenges are surmountable. The pace at which we must act, however, is daunting. Current international consensus is that we have until 2030 to reduce global GHG by at least 45% below 2010 levels and achieve net zero by 2050 to mitigate the worst impacts of climate change.

Here in Massachusetts, the new climate law, An Act Creating a Next Generation Roadmap for Massachusetts Climate Policy, signed by Governor Baker in early 2021, commits the Commonwealth to attain 50% reductions below 1990 levels by 2030 and 75% by 2040, on our way to net zero by 2050.

All of these targets require immediate action to undertake the necessary changes to achieve these statutory outcomes fully and on time. Failure is not an option. The decisions made by various levels of government (federal, state, regional, and local); individuals; and private sector organizations must be aligned, regardless of corporate or political cycles. We cannot allow quarterly profit targets and two- to four-year political terms become barriers to making decisions and investments that are needed to protect future generations.

Price signals are another barrier to consumers making choices that could minimize the relentless march of climate change. There are longstanding subsidies supporting fossil fuels, industrial agriculture, and global trade. Because of these subsidies, cheap and more environmentally-damaging clothes, food, cars, heating and cooling systems, and other goods are often the less expensive option for consumers. For households with limited discretionary budgets, the less expensive option is often the only option.

We've recently seen renewable energy generation costs become competitive with fossil fuels, and rebates for electric vehicles are narrowing the price premium over gas-powered cars. But for so many products and goods, the least expensive options are those with the highest environmental impact and the conventional product, even with cost parity, is often the preferred choice. These transitions are slow, unpredictable, and often need support to accelerate or shift more rationally.

Another key challenge is the amount of collaboration and coordination necessary to rise to the challenge. Climate mitigation and adaptation touch many sectors, from emergency management to wetlands restoration and public schools. While the new state climate law is a landmark step towards meeting our net zero goals, now comes the hard work of implementation, while we must also move forward on adaptation planning and investments and system modernization across energy, water and land management, telecommunications, commerce, transportation, and much more.

Recommendations

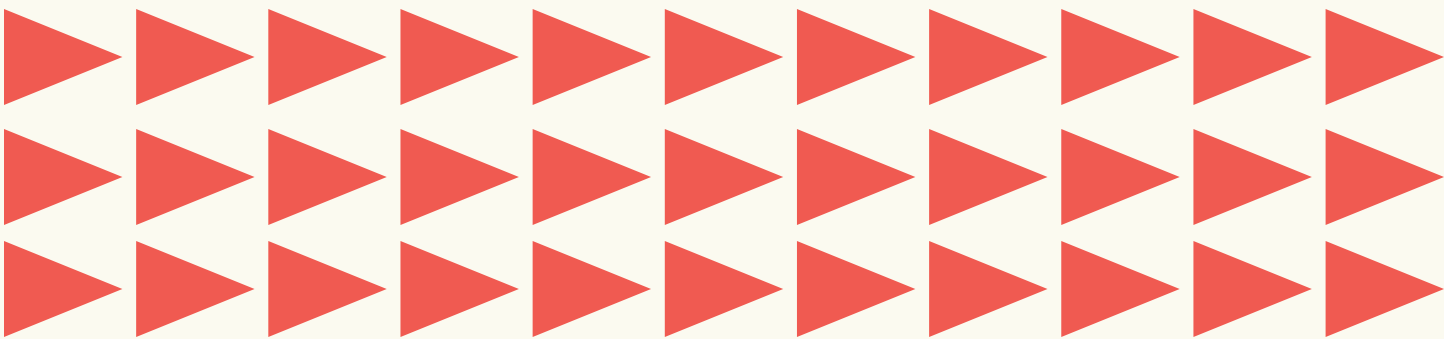
We'll need to increase renewable energy production and energy efficiency dramatically – and quickly – while ensuring access and affordability for EJ populations. We must implement microgrids, energy storage, and reduce peak demand. Electric and gas utility markets will need to support greater decentralized generation, better and more expanded transmission, and much higher levels of renewable energy. We will need resources for deep energy retrofits and higher performance standards for both new construction and renovation of existing buildings. Furthermore, public and personal transportation will need to turn sharply toward an electric future that does not aggravate congestion or sprawl.³

To move towards a more resilient region, we must focus on the following priority areas:

- ▶ Expanding green infrastructure, microgrids, and energy storage, especially in Environmental Justice locations
- ▶ Preparing our buildings and infrastructure to better withstand the negative impacts of climate change
- ▶ Moving out of harm's way, through a willing seller's program, better regulatory signals on where to build and where not to build, and improving our flood programs and data

Climate change will also significantly threaten and impact our water resources, including drinking water and stormwater. To better manage our finite freshwater resources, we need to move to an integrated water resource management approach, increase local recharge, and ensure affordable access to water through investments and limits on non-essential outdoor water use.

³ <https://www.mapc.org/resource-library/vehicle-miles-traveled-emissions/>



Dynamic and Representative Government

Good local government is vital to the success of our region, especially because of the Commonwealth's long history of local control. In other parts of the country, counties or regional entities play a major role in governance. In Massachusetts, however, it's our 351 cities and towns that raise revenue, set the rules for development, run public education systems, handle public health and safety, and in some cases provide affordable housing.

Our close-to-the ground governance structure gives people reasonably good access to their elected representatives, and those representatives are accountable through the ballot box.

The system has some serious limitations, too. People of color are underrepresented as elected and appointed officials and as municipal employees. There are financial limitations as well, with Proposition 2 ½ restricting local ability to raise taxes. That combined with limited local aid from the Commonwealth constrains municipal budgets and makes it difficult to invest in needed projects and hire staff to achieve community and regional goals.

Further, even the best-functioning local governments are not equipped to solve problems like climate, housing, segregation, and economic development. These challenges simply function on greater geographic scales. And sometimes local priorities, such as the desire to limit additional residential construction, can actually run counter to regional priorities, which include making housing available and affordable to all.

Vision

- ▶ **We imagine** a future where all governments are forward-looking, collaborative, able to adapt to changing circumstances, and inclusive. Creative partnerships are formed across governments and with non-governmental institutions to address our region's challenges. Local, regional, and state governments make the investments needed and are able to manage our vital assets such as transportation, water and wastewater, and parks. And governments provide a meaningful opportunity for their residents to participate and share in decision-making.
- ▶ **In 2050**, local governments work together, often across municipal lines. Elected leadership and staff reflect the region's diversity. Everyone can participate in government and take part in decision-making. Municipalities and regional entities are structured, sized, and have the capacity to address significant land use, mobility, and sustainability challenges effectively.

They have the financial resources to address both our regional and local needs and the flexibility to raise the funds they need to accomplish that goal. Governments and health, educational, social service, and commercial enterprises act as partners, systematically supporting the region's residents. The Commonwealth provides the guidance, incentives, and support needed to achieve the goals of the region and its local communities. All levels of government work together to make Metro Boston one of the healthiest, best educated, most equitable and resilient regions in the world.

How We Got Here

Some of our local governments were established over 400 years ago, setting the fundamental organization and governance models that continue to the current day. There is great variability in the size of our localities and their governments, ranging from cities with thousands of employees to small towns – and even a number of large ones – with few professional staff members and a high reliance on volunteers for decision-making, policy-setting, and much more.

As a home rule state, Massachusetts grants to municipalities powers that elsewhere fall to counties or regional authorities. Our 351 cities and towns enjoy wide latitude in governing what happens within their borders, and they provide a host of services and functions. Municipal governments are answerable only to local residents: regional concerns usually take the back seat.

The state does retain jurisdiction over some areas of governance. Among them is the function of raising revenue. The Commonwealth severely constrains municipalities' ability to raise additional revenues unless approved through state legislative action.

To somewhat address these constraints, the state provides municipalities local aid funding to help fund general operations, schools, and roads. These payments occur on an annual basis and steer greater amounts to fiscally challenged, less wealthy cities. Local aid is entirely dependent on state revenues, however, and it has in the past been cut back during hard economic times, precisely when it is needed most. Many of our revenue-generating mechanisms, like the local property tax and the state sales tax, are regressive in nature, resulting in lower-income residents and workers paying a higher percentage of their income in local and state taxes.

Greater Boston is home to some of the world's best endowed universities and medical institutions. Although they benefit from their non-profit status, they are governed by boards that have little in the way of public or community representation. One promising model is the increasing use of Community Advisory Boards by hospitals. There is great potential to significantly expand municipal collaboration and partnerships with the non-profit and business sectors to address long-standing challenges. However, municipalities have limited ability to encourage institutions to contribute financially or programmatically to improve their host communities, other than accepting voluntary payments in lieu of taxes (PILOT) and community service offerings.

Representation and participation in government has never been equal by race, gender, or economic status. In not-so-distant days, BIPOC and women were intentionally excluded from civic life and voting, denied the rights and privileges enjoyed by White men. While legal barriers to participation have been overturned, our elected and appointed leadership in state, regional, and local governments still fail to reflect the diversity of our region.¹ There are signs that diversity amongst elected officials is beginning to increase, yet barriers such as money in politics, the advantages of incumbency, distrust of government, and continuing racism, sexism, and economic insecurity continue to prove high bars to greater diversity in leadership positions.

Challenges

Local government can lack the time, focus, staff, capacity, and resources to identify and address regional needs, and public decision-making is spread across various levels of government, often for reasons more historical than practical.

This was particularly evident during the pandemic. Although local leaders communicated and collaborated more closely than ever before, they didn't have a mechanism to create a tailored approach to regional circumstances. The result was a COVID response that was partly an inconsistent patchwork of local approaches and partly a blanket of policies standardized for the entire state, whether appropriate for all areas or not.

In absence of strong county authority, the region's municipalities rely heavily on state government and regional agencies such as the MBTA and MWRA for critical resources and programs. Sometimes, however, such entities lack meaningful local representation. They have no direct accountability to voters.

In addition to greater representation and collaboration across levels of governmental jurisdictions, creative problem-solving and partnerships are needed among municipalities and with the private and non-profit sectors. Having the staff, capacity, and ability to convene and work across sectors and jurisdictions is a major challenge for local government. Such work competes with usual job duties and local time-sensitive issues.

Access to reliable data is another challenge. Data collection, standards, and ownership vary widely depending on the source, making it difficult to understand problems fully or to track progress towards solutions. Regional Planning Agencies (RPAs), if adequately resourced and staffed, could help to fill many of these data needs.

Municipalities are funded through a variety of sources, but the largest and growing source for most is the property tax. Some communities rely on residential property taxes for nearly 95 percent of their revenues. Others have large commercial and industrial tax bases, while some cities rely on annual appropriations of state aid in large measures. This dependence on property taxes fuels some of the glaring disparities in school district quality.

¹ <https://www.wbur.org/news/2019/11/13/elected-officials-diversity-report>

Proposition 2 ½ restricts the growth in annual property tax levies, while at the same time, fixed costs such as medical, retirement, and infrastructure maintenance eat up an increasing share of local spending. In order to meet these needs without expanding reliance on the property tax, the Commonwealth should authorize new techniques to allow localities to generate needed tax revenue, preferably in a progressive manner.

Despite the pandemic, most municipal budgets are looking solid in the short term due to federal stimulus and less dire economic impacts than early estimates contemplated. However, we cannot allow rosy short-term forecasts to mask longer-term threats and unmet investment needs that are likely ahead. Negative impacts from climate change, an uncertain commercial property market, and unpredictable long-term levels of federal support all point to the need for new tools enabling local government to raise sufficient revenue using more equitable and predictable mechanisms to meet our long-term local and regional needs.

Another challenge is increasing the representation and participation of all residents in the processes of local governance. People of color are under-represented as elected and appointed officials and our research has found that municipal employees are older and Whiter than regional averages.² There are a variety of reasons for this lack of diversity, including the segregation of our region, historically racist hiring practices, and civil service constraints. Meanwhile, serving in government can be a thankless job, limiting the appeal for some. As the Baby Boomers begin retiring over the next decade, attracting new employees and volunteers, and especially BIPOC candidates, will be critical to building the capacity and effectiveness of the next generation of governments.

Recommendations

Our recommendations for strengthening our local and regional governments include greater collaboration and representation across governments and with institutional and private sector partners. We would like to see more flexibility and joint decision-making to raise funds from regional sources to address regional challenges. And by making government more accessible and a more rewarding experience, new generations of workers and volunteers of all backgrounds will be more likely to work for and participate in their municipal and regional governments.

² <https://www.mapc.org/planning101/the-diversity-deficit-mapc-releases-new-research-on-greater-boston-municipal-employee-diversity/>



Equity of Wealth and Health

Our social, political, and economic systems deliver widely disparate outcomes in wealth and health, frequently along racial lines. This is a global and national problem, but Metro Boston has a particular history that has brought us to our current reality. If we are to thrive as a region, we must undo and redress these disparities, which will require structural changes in many aspects of society.

It is a universal desire to live a healthy and meaningful life, but the opportunity to do so is not universally shared. The enduring legacy of racism – historical and contemporary, institutional and interpersonal – embedded in healthcare, economic, and housing policy, has resulted in a society in which zip codes and race play outsized roles in economic and health outcomes.^{1,2} Black, Indigenous, and people of color in the United States are more likely to experience poor mental health, illness, and death than their white peers as a result. The impact is so great that in 2021 the Centers for Disease Control declared racism a serious threat to public health.

In the Greater Boston region, Black and Latinx youth and adults are three to six times more likely to have chronic asthma than their white peers. Black adults in the region are nearly seven times more likely to be hospitalized for high blood pressure than white adults.³ Nationally, Indigenous and Black women are two and three times more likely to die during childbirth than their white counterparts.⁴

Health equity means that everyone has a fair and just opportunity to be as healthy as possible. This requires removing obstacles to health such as poverty, discrimination, and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care.

When we talk about wealth, we mean incomes and financial assets that allow an individual or household to meet basic living expenses, including saving for retirement, and having the resources to meet expenses for 3 to 6 months should an unexpected disruptive event occur.

The disparities in health and economic outcomes between White populations compared to BIPOC populations are deeply rooted in history and result not only from individual programmatic and political decisions, but also from systematic racism and economic exclusion. In recent decades, we have experienced a diverging Greater Boston, with growing populations of higher and lower income households and a loss of middle-income households, at the same time the region has grown more racially diverse.⁵ The COVID-19 pandemic, while affecting all communities, has exposed and accelerated these trends, revealing the much greater vulnerabilities and negative impacts experienced by low-income and BIPOC individuals. From positive test rates to loss of jobs and income, low-income and BIPOC communities have suffered much greater impacts during the pandemic.⁶

1 <https://www.rwjf.org/en/library/interactives/wheretheyouliveaffect-showlongyoulive.html>

2 <https://www.cdc.gov/healthequity/racism-disparities/index.html>;

3 http://www.regionalindicators.org/topic_areas/7#growing-up-healthy-and-staying-healthy

4 World Health Organization (2019). Trends in maternal mortality 2000 to 2017: estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division. https://www.unfpa.org/sites/default/files/pub-pdf/Maternal_mortality_report.pdf

5 <https://boston.uli.org/uli-resources/building-for-the-middle-housing-greater-bostons-work-force/>

6 https://www.bostonindicators.org/reports/report-website-pages/covid_indicators-x2/2020/december/persisting-covid-disparities

Vision

- ▶ **In 2050**, residents of Metro Boston can provide for themselves and their families throughout their lives. Workers earn wages that support healthy lifestyles, access to opportunities and stable homes, and allow for education, emergency savings, and retirement. Those in need receive services and supports from both public and private sources. Populations that have historically lacked or been denied wealth are now as likely as others to build wealth and pass it on. Employers provide job stability with “family first” policies. Young children have safe, affordable, and nurturing environments in their early years. Students thrive in high quality schools that prepare them for fulfilling work and life. Adults who want to expand their skills can find convenient and affordable higher education and training programs.
- ▶ **In 2050**, residents breathe clean air, drink clean water, and eat healthy foods. Across race, ethnicity, immigration status, age, income, and ability, people live longer, healthier lives because they live in neighborhoods that are welcoming and safe, and in homes that are stable and affordable. Racist systems have been dismantled, no longer affecting BIPOC communities. Residents travel through the region conveniently and safely, and they enjoy nearby parks and open space. Neighborhood design promotes social connections and healthy choices. Strong schools, high-paying jobs, accessible social services help residents lead engaged and healthy lives. Violence, pollution, poverty, and other threats to well-being are rare and actively deterred. Affordable and high-quality medical and behavioral health care, with an emphasis on prevention, is available to all.

How Did We Get Here?

The roots of inequality run deep in this region. The colonization of New England dispossessed native populations of most of their land, and although slavery ended in this part of the country before it did in the South, the foundation of much of the region’s wealth continued to grow as a result of production and trade relationships with a slavery-based economy. Exclusion and oppression continued over the centuries through governmental policies and programs and through economic systems, including exclusionary land use and employment practices in communities throughout our region. From slavery and Jim Crow to contemporary labor, environmental, housing, and educational systems, the economic and political rules of society have created and exacerbated disparities in wealth accumulation and health along demographic and, especially, racial lines.

The economy of the United States created the largest and best educated middle class in history, however, throughout history it has exploited low-income workers and marginalized BIPOC individuals. For decades in Greater Boston, there has been a carving out of middle-income jobs – across occupations from installation, maintenance and repair to office and administrative support. At the same time, the region has seen rapid growth in the lowest paying occupations like food prep and serving, and the highest paying occupations in healthcare and tech. This dynamic has exacerbated wealth disparities in the region.⁷ Growth in low-paying

⁷ <https://ulidigitalmarket-ing.blob.core.windows.net/ulidcnc/2016/05/ULI-Boston-Building-for-the-Middle.pdf>

and undervalued service and personal care industry jobs and jobs in the so-called gig economy that do not provide benefits like sick, vacation, and retirement are a growing share of our economy.⁸

The high cost of housing, energy, transportation, food, and sometimes student debt and childcare in Greater Boston consumes a large share of an average household's income, and for lower-income households, nearly all of it.⁹ The cost of covering basic needs can preclude saving for retirement and emergencies.

Although the social safety net in Massachusetts far surpasses that in many parts of the country, including supports for income, food, medical, and housing costs, it has never provided enough support for low-income individuals and households to thrive and live their lives without the stress and stigma of poverty.

Prospects for moving into higher income and wealth brackets are limited, even for the next generation. While the rags to riches story of the American Dream sometimes come true, in reality, it is more myth. Inter-generational wealth transfers tend to maintain the relative position of higher net worth families, who are predominantly White, over time. Appreciation in home values has been a primary wealth building mechanism, yet one that is inaccessible to many in Greater Boston. Most lower and many middle-income families find it impossible to buy a home in much of Greater Boston, and if deed-restricted, these homeownership opportunities build less wealth because of limits on resale prices. BIPOC households face the added exclusionary impacts of racism in real estate, mortgage lending, insurance, and unwelcoming local environments.

Growth patterns over time have contributed to our inequities in wealth and health. Throughout much of the 20th century, redlining, exclusionary zoning, and policies adopted at all levels of government ensured that predominantly Black and other neighborhoods with a high percentage of non-White residents would remain underinvested and cut off from resources, while offering White residents the opportunity to leave core cities and move to the suburbs. Even within core cities, similar practices kept some neighborhoods predominantly White, while Black and Latinx neighborhoods saw disinvestment and a decline of municipal services.

Many factors drove suburbanization, but government policy directed this opportunity mainly to White residents through discriminatory lending, mortgage, and tax policies. The effects of these policies have been long lasting, as shown by current home ownership rates in Metro Boston for Black and Latinx householders at 32% and 25%, respectively, less than half the rate for White householders (68%, State of Equity in Metro Boston, 2017). Even high-income Black mortgage applicants are twice as likely to be denied a mortgage as high-income White borrowers. Today, the segregation of our region and the varying quality of our school systems are further evidence of the long-lasting effects of these policy choices.

8 https://www.hamiltonproject.org/assets/files/modernizing_labor_laws_for_twenty_first_century_work_krueger_harris.pdf

9 <https://livingwage.mit.edu/metros/14460>

10 McGinnis, J. M., Williams-Russo, P., & Knickman, J. R., 2002

Neighborhood design, investments, transportation access, and amenities vary widely throughout our region. This has huge implications on public health outcomes, as 60% of people's health can be traced to neighborhood characteristics.¹⁰ In 2011, MAPC analysis found that racial disparities in low-birth-weight eclipsed differences attributable to education level, most notably for Black

women. Based on 2005-2009 data, a college-educated Black woman was 40% more likely to have a low-birth-weight baby than a White woman without a high school diploma – suggesting the impacts of racism eclipse the opportunities that come with higher education. Racial disparities in youth asthma hospitalizations are becoming more severe over time, with Black youth hospitalized 2.7 times higher than the regional average.¹¹

Access to healthy foods and open space, tree canopy, and parks are not equally distributed, leading to food deserts and elevated risks of extreme heat exposure in some urban neighborhoods. Air quality is also worse in neighborhoods that are home to Environmental Justice populations, due to increased exposures from major transportation and industrial emitters.

Challenges

The challenges to building a more equitable region are many, as injustices are embedded in the systems that govern society. Undoing the practices and policies that have led to disparities in wealth and health will require reforms throughout our institutions, both public and private. The primary challenge to creating more equitable wealth and health is the uneven distribution of political power, which leads to growing income and wealth inequality, further compounding the differences in power and the ability to participate effectively in government.

Income and wealth inequality have been increasing nationally for decades and the picture in Greater Boston is no different. The fifth of Metro Boston households earning the lowest income are making only 3% more than they were in 2006, while the fifth of households making the most income are making 15% more. The average income for the highest-earning fifth of households (\$280,600) is 18 times higher than the average income for the lowest-income fifth of households (\$15,800). That disparity has increased by two points since 2006.¹² This is creating two, distinct realities where those that are well off share little in common with the struggles of those trying to survive. For low-income workers, the drive to put food on the table and make ends meet can be all-consuming, often leaving little room for anything else.

BIPOC and low-income people are often leading the charge to change racist and exclusionary policies and political systems, resulting in some of the most important reforms in history, including the Civil Rights movement and present day movements against racist policing and for climate justice. Yet the influence of money is powerful, and often big money is used in opposition to the goals of grassroots activism. In 2010 the Supreme Court in *Citizens United* found that political contributions are protected as political speech. From 2009 to December 2020, a dozen megadonors contributed \$3.4 billion to federal candidates and political group, accounting for 1 out of every 13 dollars raised.¹³ Barriers to civic engagement also contribute to the uneven distribution of political power. Despite representing all residents in a given district, access to elected officials is much greater for voters, donors, and those who participate in civic life. In Massachusetts, the power of incumbency is strong, with many elections uncontested.

11 State of Equity, 2018. MAPC.

12 State of Equity, 2018. MAPC.

13 Beckel, Michael. Issue One. As reported in the New York Times, April 16, 2021

Distrust in our political systems stems from a variety of experiences and philosophies. People have fundamental disagreements over the size and scope of government. For BIPOC communities, distrust stems from centuries of government policies of marginalization and oppression. Personal negative experiences with schools, police and the criminal justice system, the health care system, or planning processes and development decisions can also contribute to negative views of government. Distrust can also originate through a lack of transparency in decision making and from a lack of information about local processes. The decline of local reporting and rise of social media have only fueled disinformation and views towards government.

Recommendations

As we begin recovery and rebuilding from the COVID-19 pandemic, we face a once-in-a-generation opportunity to invest in ways to directly undo the history and challenges outlined in MetroCommon. The American Rescue Plan Act of 2021 is providing hundreds of billions of recovery dollars. Other federal efforts may bring even more resources to support investments in infrastructure and family supports. There will be many competing priorities for these funds, but these federal funds provide a significant opportunity to invest in BIPOC and low-income communities that have faced long-lasting systematic racism and economic exclusion and who are disproportionately affected by the pandemic. State, regional, and municipal governments should screen prospective investments to center efforts that will create a more equitable distribution of resources and opportunities. The policy recommendations particularly **in Enable Wealth Creation and Intergenerational Wealth Transfer and Reverse the Rising Rate of Chronic Diseases, particularly among Populations Experiencing Health Inequities** will help our region, and the Commonwealth as a whole, to center racial and economic equity as the fundamental focus of recovery and rebuilding.



Homes for Everyone

Greater Boston is the third most expensive housing market in the nation, for both buying and renting. Why? It's a simple equation. High demand + limited production = high costs. Steep construction, labor, and land costs; limited financing for affordable housing construction; exclusionary local regulations; and attitudes that perpetuate a history of segregation by race and income – all curtail the production of new homes, which drives prices up.

This has a host of serious consequences. We're losing longtime residents and recent grads to more affordable locales. Employers and employees balk at our cost of living, which is sky-high primarily because of housing. This threatens our long-term economic competitiveness. Where there are few options for older adults to downsize, they stay in their larger single family homes.

The human cost is high. Nearly 25 percent of renters and 12 percent of homeowners are severely cost-burdened (spending half or more of their income on housing).¹ Homelessness and housing instability for lower-income residents are increasing, while wait lists for public and other subsidized housing are often extremely long. Low-income and BIPOC households face displacement from their communities, while the central cities and higher-wealth suburban submarkets offer fewer homes that moderate- and middle-income households can afford.²

To counteract these trends, we'll need to build more housing, especially affordable housing, at a variety of price points.

This will require more resources, updated zoning, and new construction approaches. We will also need to provide greater protections for renters and limit displacement. Eradicating discriminatory practices in the housing system will require investment in testing, planning, and compliance.³

Vision

- Our shared vision imagines a future where all residents have safe and comfortable homes that they can afford in the communities that they prefer. A future where housing is available that meets the needs of the population, regardless of their stage of life, family size, income, or mobility barriers. A future where homelessness no longer exists. Some dream of becoming homeowners and others are happy to rent because their rental prices are stable and predictable. If we succeed in reaching our goals, those that want to buy a home will be able to and no renter or owner will have to pay more than 30% of their income on housing expenses. We also imagine a region that is less segregated, where our communities more closely reflect the demographics of the region as a whole. Homes in the future will be deeply energy efficient, even producing electricity that can feed back into the grid.

1 U.S. Census Bureau, American Community Survey, 2018 5-year Estimates.

2 <https://boston.uli.org/uli-resources/building-for-the-middle-housing-greater-bostons-workforce/>

3 Other Action Areas target related issues: creating better paying jobs, increasing the ability to build wealth, and building new homes in smart growth locations and with deep energy efficiency and more renewable energy sources to power those homes.

How We Got Here

Metro Boston was not always known for our high cost of housing, but intentional choices have made us so.

Supply is the beginning of the story. The region builds much less housing every year than it did in the 1980's, and the supply of new housing is not keeping up with demand. In 2021, the inventory of homes for sale is incredibly low, driving up prices even higher.

One of the most significant barriers to housing production is local zoning. Zoning determines what can be built where. Many of our municipalities have chosen to zone so as to allow little to no building of multifamily housing, and especially not deed-restricted affordable housing. This is part of the reason housing production has not kept up with historical levels and is not meeting demand. Some developers turn to Chapter 40B, the state's affordable housing law, to override local zoning in exchange for providing a percentage of the units as affordable. While far from a perfect law, Chapter 40B has produced the most affordable units. In 2014, CHAPA documented that over 60,000 affordable units have been built in over 1,200 developments.⁴

Discretionary permitting processes, legal appeals, and the difficulty of passing zoning amendments all contribute to a fraught regulatory environment that increases the cost of construction.

Even where local zoning allows new housing proposals, it's common for projects to meet opposition. Concerns over density, traffic, and increased schooling costs are frequently voiced. They are usually exaggerated well beyond what data supports and can cloak a desire to keep renters, lower-income residents, people of color, and families out of a neighborhood.

This predictable opposition frequently comes from a small, vocal minority that is significantly more likely to be older, White male homeowners.⁵ And it can significantly scale back the size of proposed developments or derail them entirely.

Meanwhile, others fear that market-rate (and even sometimes below-market-rate) units won't be affordable for current community members, and that they will be displaced by a resulting increase of rents and home prices. Again, there is a kernel of truth to this. But failing to build new places to live can also inflate the prices of existing homes, and can just as easily result in displacement.

Also contributing to the affordable housing shortage and driving up prices is that speculators and developers are removing single-family homes and apartments from the market and converting them to upscale investment properties, including for short-term rentals like Airbnb. There is financial incentive to do this: building high-end homes is more profitable than building rentals or affordable units. It does cost more to build luxury housing. But the developer can charge more for it, too – much more than the additional cost.

⁴ https://www.chapa.org/sites/default/files/40%20B%20fact%20sheet_0.pdf

⁵ Einstein, Palmer, Glick. Who Participates in Local Government? Evidence from Meeting Minutes. 2017

A recent piece of good news was the 2021 passage of Housing Choice legislation, which included a mandate for multi-family zoning in MBTA communities.⁶ Over the years to come, we will see what impact the new rules have on limiting appeals and making it easier to adopt pro-housing policies through zoning and special permits.

The history of how we became so segregated is long and painful. Private banking, insurance, and real estate practices, along with public policies at the federal, state, and local level discriminated actively against non-White homebuyers throughout the 20th century. Redlining cut off mortgage access to entire neighborhoods that were predominantly home to Black households. The GI Bill, federal lending policies, and social housing policy were designed to keep Whites separate from BIPOC communities.⁷

Redlining and covenants based on race no longer exist, but their legacies continue. Contemporary zoning in effect maintains regional segregation. Home mortgage loans are less likely to be approved in areas once deemed “too risky” via redlining, *even among high-income loan applicants*.⁸ Racial bias continues today through tactics like “steering,” where real estate agents guide prospective BIPOC buyers and renters away from neighborhoods that are predominantly White.

Despite being illegal, discrimination continues to harm BIPOC buyers through limited mortgage finance, predatory lending, and racially-motivated practices by some landlords, real estate agents, and home sellers.⁹ Even if these practices are not as widespread as they once were, they stall the region’s ability to overcome decades of discrimination in the housing market, which built the segregated society we see today.

A lack of affordable housing effectively excludes lower-income households and many BIPOC from many moneyed towns and neighborhoods. This compounds segregation by race, income, and ethnicity. At the same time, high-priced communities frequently have more amenities and higher performing and better-funded public-school districts, helping to lock in long lasting educational, wealth, and health disparities over time.

Challenges

Restrictive and exclusionary zoning is found in many municipalities throughout our region, and local opposition can delay, pare down, and even stop development proposals and rezoning amendments outright. Sentiment in favor of housing and affordable housing is spreading to numerous communities in the region, but opposition remains strong.

The lack of homes affordable to low- and middle-income households force people to pay more and more of their incomes to cover housing costs – or to face displacement to lower-cost places. From 2009 to 2016, home sale prices in Eastern Massachusetts rose 20 percent and wages rose eight percent after adjusting for inflation.¹⁰ Wage growth in middle- and low-income occupations doesn’t keep up with rising housing costs, creating a further gap between what the market offers and what our residents are able to afford.¹¹ Increasing numbers of higher-income

6 <https://www.mass.gov/info-details/housing-choice-and-mbta-communities-legislation>

7 Rothstein, Color of Law. 2017

8 Housing Submarkets: <https://housing-submarkets.mapc.org/>

9 <https://projects.newsday.com/long-island/real-estate-agents-investigation/>

10 Executive Office of Labor and Workforce Development (EOLWD), Labor and Wages (ES-202); The Warren Group, Home Sale Transactions.

11 Out of Reach 2021, National Low Income Housing Coalition: <https://reports.nlihc.org/oor/massachusetts>

owners and lower-income renters compete over limited supply, and current public sector interventions appear insufficient to respond to market trends. Tenant protections, support for low-income homeowners, and efforts to enforce anti-discrimination and Fair Housing laws are lacking or underfunded.

The rapid rise in housing prices and rents over the past decade has placed great pressures on owners and renters, alike. Rent hikes, speculation, condominium conversion, and evictions are forcing people out of their homes and into new communities, sometimes far removed from where they previously lived, and often to municipalities with lower-quality schools and limited opportunities. The pandemic and associated job losses are resulting in even more housing instability for both renters and owners.

Despite the relatively high level of state support for affordable housing programs, there are still not enough resources to meet the demand for permanently affordable units, for subsidies to renters through vouchers, and for supportive housing (i.e., housing that is matched with services). Public housing authorities lack the resources to maintain and modernize their units, which are among the most affordable in the region, and they generally do not have the resources to build new affordable units.

Basing eligibility for subsidized units on 80 percent of the “Areawide Median Income” (AMI) can disadvantage low-income residents who hail from neighborhoods where the median income is much lower than the median income of the entire metropolitan area. However, using AMI based solely on neighborhood or municipality could exacerbate segregation. Creating more units that are eligible for households earning 30 or 50 percent of AMI is critical to making new units truly affordable to those in the most need, even though this requires deeper subsidies.

Recommendations

Our short-term recommendations focus on producing more multifamily, energy-efficient, and affordable homes in downtowns and close to public transportation (also known as smart-growth locations). Deeper subsidies and support for first-generation homebuyers, especially for BIPOC households, are needed. Much stronger interventions to minimize displacement and discrimination in the housing markets, and especially renter protections, must be prioritized. Since the region cannot possibly resolve the housing crisis through supply alone, at least not in the short term, interventions addressing rent regulation is warranted.



Inclusive Growth and Mobility

Where and how our region grows and how we get around it are the result of choices – choices with long-term implications on travel patterns, greenhouse gas (GHG) emissions, and overall quality of life.¹ Our decisions today will affect future economic opportunity and ease of making social connections and physical activity. Where we build new housing and where we locate new jobs will impact municipal tax revenues. The shape of our growth will determine who benefits and who does not.

To meet the region’s goals, we’ll need to focus most of our growth in places where homes, jobs, and infrastructure already exist, and especially in places that are easily connected by reliable and affordable public transportation. These locations include city and town centers, village centers in more distant suburbs, and urban and suburban neighborhoods that are served – or that could be easily be served – by transit. It also includes previously developed but currently underutilized sites that already have water and wastewater infrastructure.

Such smart-growth locations exist throughout the region. The amount and type of development may differ from place to place – but there are ways “to grow smart” in cities, suburbs, and even in more rural locations.

As we focus development in these smart-growth locations, we must also preserve our cultural and historic assets, as well as the natural resources that provide habitat, farms, wetlands, and stormwater infiltration. We must ensure that growth does not provide opportunity for some, while displacing others. The development and retention of affordable homes is a key to growth that is both sustainable and equitable. The presence of well-paid jobs and transportation affordable to all are critical elements of making all communities welcoming to all the people of our diverse region.

Vision

- **In 2050**, the ways we get around are reliable, adequately funded, and well maintained. Travel is safe, efficient, pleasant, and affordable to all households, regardless of income. New transportation technologies and services operate on our roads, underground, and on the water. These new travel options help alleviate congestion and pollution, rather than adding to it. Public transit and shared trips are often more convenient and affordable than solo trips. Auto congestion still exists, but it is predictable and avoidable.

People with mobility limitations and those without a car can get around easily and can afford to do so. Low-income residents and residents of color enjoy high quality transit to more parts of the region, improving access to opportunity. People of all ages walk or bike more frequently for short trips

¹ <https://www.mapc.org/resource-library/vehicle-miles-traveled-emissions/>

because conditions make that option safe and enjoyable. The transportation system has a minimal impact on the local and global environment, with reduced pollution and runoff, drastically reduced GHG, and less land set aside for roadways and parking.

- ▶ **In 2050**, our air is pure, indoors and out. Our cities and towns are healthy, with beautiful parks and natural areas accessible to all. Our cities and neighborhoods are quieter, with less polluting and more efficient transportation technologies. Contaminated sites are cleaned up and turned to new uses. There is less waste overall, but unavoidable waste produces energy, fertilizes soil, or is reprocessed. We have enough fresh water from our wells, streams, and reservoirs to meet the needs of people and wildlife. Our farms and fisheries produce plentiful and healthy yields, and are sustainable. Habitats, forests, wetlands, and other natural resources are protected and enhanced.
- ▶ **In 2050**, residents and visitors of all backgrounds enjoy a wide variety of historical, cultural, recreational, and artistic experiences. Public art, cultural institutions, and social activities reflect our region's diversity and an accurate reflection of history. Residents of all ages, abilities, and incomes have opportunities for creative expression and art education. Public and private funding makes art more accessible to a broader audience. Public programming and urban design encourage opportunities for social and cultural experiences and walkability. This builds social connections and cohesion. New development complements and enhances existing city and town centers. Historic buildings and cultural landscapes that are important for understanding our region's people and cultures are protected or adapted to contemporary needs.

How we got here

From our earliest cow paths to the streetcar suburbs of the late 19th and early 20th century, Greater Boston's urbanization radiated out from the core cities in the hub and spoke pattern we see even now on our transit and road maps. With the advent of the automobile and the post-war boom, Metropolitan Boston rapidly suburbanized, continuing the development pattern that defines our region to this day.²

Part of that boom was driven by white flight from the central cities, facilitated by the construction of highways and federal policies that opened up access to suburban homeownership to many, but not all. Richard Rothstein and others have demonstrated the racist bias of many of the federal and local housing policies that intentionally excluded Black and other BIPOC communities from benefiting from these programs and from having equal access to all neighborhoods. We live today with the results of this intentional exclusion, demonstrated by ongoing disparities in wealth and homeownership between Black and White households and the highly segregated regional distribution by race.^{3,4}

2 O'Connell, James. *The Hub's Metropolis: Greater Boston's Development from Railroad Suburbs to Smart Growth*. MIT Press. 2013.

3 <https://www.bostonfed.org/publications/one-time-pubs/color-of-wealth.aspx>

4 http://www.regionalindicators.org/topic_areas/7#home-ownership-rate

Our transportation system developed in response to the demands driven by land-use location decisions. Just before the 20th century, Boston launched the nation's first subway (barely beating New York City). There were subways, trolleys, buses, and regional rail, and many people walked to jobs and elsewhere.

During the suburbanization of the past century, private vehicle ownership skyrocketed to serve the dispersed homes across the region. Taxpayer dollars built highways and often expanded parking lots, while a slow disinvestment from public transportation began. Ring development along Route 128, then 495, and the construction of the Turnpike and I-93 facilitated the movement away from the Inner Core cities. While the personal auto provided convenience and privacy, it also resulted in air pollution, congestion, and the need to convert thousands of acres to roads, parking lots, and other infrastructure needed to support this travel preference. Road and bridge construction and maintenance took precedence over investments in public transportation, walking, and biking.

Our development patterns have also converted thousands of acres of habitat, farm, and wetlands to building sites, roads, and parking. Mass Audubon has documented that 1.1 million acres are now developed, 21% of the state's land. And we are converting 13.5 acres a day of natural land to new development.⁵ We've built some neighborhoods with no publicly accessible open or recreational space. Historic and cultural spaces and buildings have been lost or have been encroached on by new, incompatible development.

In the last few decades, Metro Boston's downtowns have experienced a resurgence. People returned to cities like Boston, Somerville, and Salem, seeking the benefits of urban living, and in so doing, have reversed decades of population loss. The cities in the Inner Core, particularly, have experienced strong population and employment growth.^{6,7}

Some cities in the Inner Core have tried to get ahead of this growth with an influx of new housing development, while others have resisted growth. Without a balanced effort, it hasn't been possible to add enough housing to meet demand. The urban renaissance has stabilized some cities' finances and reinvigorated neighborhoods and business districts, but neither the benefits nor the burdens have been evenly shared.⁸

Once-affordable neighborhoods and towns are out of reach even for middle class buyers. As rents and home prices reach historic highs, many long-term residents, immigrants, and artists are priced out. This is hitting low-income and many BIPOC communities especially hard. Seniors on fixed incomes are also increasingly vulnerable to housing instability. For many renters, homeownership in a growing number of communities is simply impossible.

5 Mass Audubon. Losing Ground 2020 Report.

6 <https://www.mapc.org/wp-content/uploads/2017/10/01JanJobGrowth.pdf>

7 <https://housing-submarkets.mapc.org/submarkets/1>

8 https://ma-smartgrowth.org/wp-content/uploads/2019/06/03/FINAL_Multi-Family_Housing_Report.pdf

Challenges

This is a uniquely challenging time to assess the state of our transportation system as we come out of a devastating pandemic that bottomed out ridership (and fares) on public transportation, generated record unemployment, and saw huge numbers of employees and students working from home. Exactly when the transportation system will achieve a "new normal," and what that will look like, will take some time to ascertain.

Even before the pandemic, emerging innovations in technology, such as hybrid and electric vehicles; transportation network companies like Uber and Lyft; micromobility offerings such as bike and scooter share; and the prospect of automated vehicles were actively reshaping the future of transportation. The pandemic hit pause on some of these trends, but they are showing signs of restarting.

Building back our public transportation system, aligning transportation investments with changing land-use patterns, and planning on how to incorporate new transportation technologies into our region are just some of the major challenges ahead.

Another challenge is overcoming the inequities of our current transportation/housing system. Some people “move until they qualify” – that is, go to live in a community they can afford. Many of these communities, however, are inaccessible to jobs and services, and living in them involves high transportation costs and long commutes. Those who remain in high-cost urban and suburban communities find themselves financially squeezed by high rents and costly transportation.

Environmental hazards, including pollution and noise caused by transportation, unfairly burden BIPOC and low-income communities, with significant health impacts.⁹ And overall, people of color continue to spend more time commuting to and from work than White residents. We have found that Black bus riders spend 64 more hours per year commuting than White riders.¹⁰ This pattern may only worsen as predominantly White workers in high-paying jobs spend more time working from home, while so-called “essential” workers must still travel to and from a job in a physical location.

Local zoning requirements, such as large minimum lot sizes, off-street parking requirements, and other regulations reinforcing the centrality of the personal auto have spurred an auto-oriented growth pattern over the past half century. Free and convenient parking, public subsidies for road construction and maintenance, and low fuel prices and taxes facilitate the choice to drive. However, we know that this sprawling pattern of growth, even if it is less pronounced than in many other parts of the country, augments inequity and spurs reliance on fossil fuels. Relying on these fuels to power cars, trucks, trains, and buses will not allow us to reduce GHG emissions to state-mandated levels. We also know that relying on personal vehicles cannot be the long-term solution, as there is simply not room on our roadways for everyone to drive.

Fortunately, our public transportation system in Greater Boston has “good bones.” In recent years, the MBTA has focused on improving management practices and the “state of good repair” rates of its fleets. Yet still, the current operations of the MBTA and nearby Regional Transit Authorities are insufficient to meeting the goals of a reliable, affordable, and equitable transportation system. Infrequent service, limited hours of operation, service disruptions, and steady fare hikes are common challenges to creating a more robust and appealing public transportation system. The “hub and spoke” model serves those commuting to and from Boston, but makes for long or impossible journeys to destinations between the “spokes.” Some neighborhoods are underserved by transit options, especially some of those that are home to large BIPOC communities. Good public transit options in lower-

⁹ <https://www.mapc.org/pollution-disparities-covid19/>

¹⁰ http://www.regionalindicators.org/topic_areas/2#affordable-commutes

density suburbs, and more frequent and affordable service for seniors and those with mobility issues, remain elusive. These shortcomings also contribute to people deciding to drive when that is a viable option.

With limited exceptions, land-use planning and regulation is divorced from transportation planning and investments in Metro Boston. Transit agencies do transit, and municipalities oversee zoning and the other regulations. This disconnect results in new development being located in places that cannot be served by public transportation and, in some cases, new development located next to transit service that is either already at capacity or too infrequent to support ridership.

The type and design of development located close to transit also determines if the new residents or workers will actually use the transit that is available. We have found that residents of higher-price apartments and condos with ample parking are more likely to drive than to take transit, while incorporating less parking into these developments could encourage residents without (or with fewer) cars to move in and use the transit that is provided.¹¹

On the positive side, over the past decade, we have seen many more developments built close to transit, a practice known as transit-oriented development (TOD). The new Housing Choice law, which requires multifamily housing districts close to station areas for most of the municipalities in Eastern Massachusetts, should provide an opportunity to integrate land use and transportation more effectively, but all stakeholders need to be part of that conversation in order to deliver on the promise of more integrated and successful development.

How can we raise the funds necessary to invest in the public amenities and goods that our region needs to thrive? Public transportation and art, affordable housing, and open space all have significant funding needs, but exactions on private developments can only be asked up to a certain level before a development proposal no longer makes financial sense. On the public revenue side, tax increases are rarely popular. Each of the identified needs for greater investment has its own constituents and movement behind it. Is it possible to forge a broad-based coalition out of these often-competing interests?

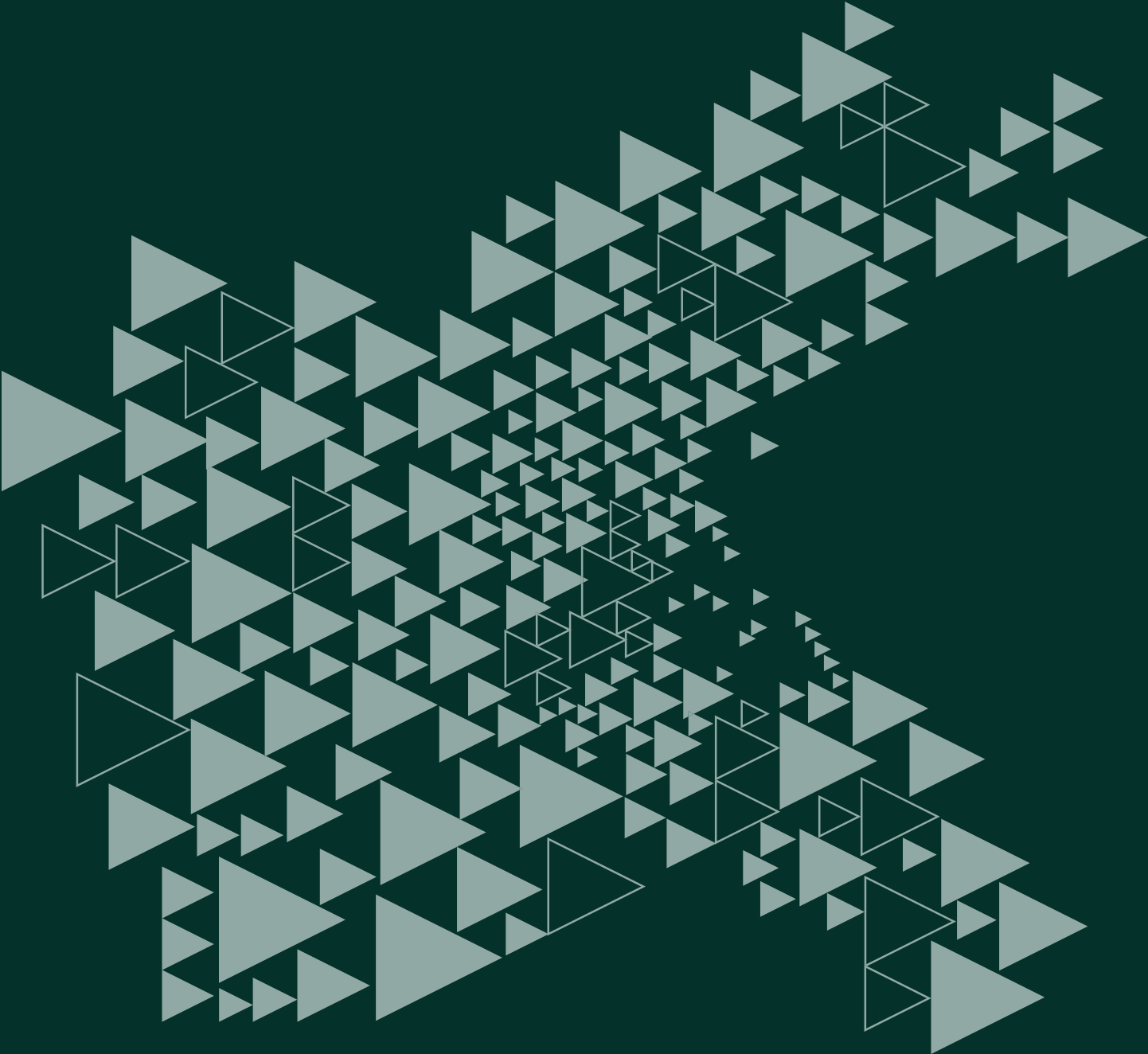
Where and how we grow and travel will, in large part, determine if we can meet our goals for climate, public health, and equity. The challenges we confront are many and include political, financial, legal, and cultural obstacles that have to be overcome, but they are not beyond our grasp to address.

Recommendations

The recommendations focus on investing and expanding our public and active transportation systems in order to support more affordable, reliable, and safer connections to jobs and homes. Reinforcing this direction is the need to use both requirements and incentives to steer new development to places with access to public transportation and the infrastructure to support new growth, and away from critical natural and cultural resources that cannot be replaced. Our recommendations also call for greater attention to the public realm in both new and existing neighborhoods. This includes better access to parks and open space, support for public art, artists, and historic preservation, and human-scaled design.

¹¹ <https://perfectfitparking.mapc.org/>

MetroCommon 2050 × Policy Recommendations
Getting to the Region's Goals



MetroCommon 2050 is Greater Boston’s long-term land use and policy plan. Its intent is to make real and beneficial change in our region. That will necessitate legislative, regulatory, and funding modifications, and the MetroCommon policy recommendations were created accordingly. The recommendations are not everything that needs to be done, but a series of significant first steps that will help unlock more long-term transformative changes.

Each recommendation includes a series of strategies and actions. Strategies ask, “how do we achieve the goals set out in each recommendation?” Actions, which identify a specific actor, ask, “what do we need to change/pass/enact/fund in order to implement our strategy?” Actors could be municipal officials, legislators, the Administration, advocates, and other interested parties who have the opportunity to advance solutions that help us achieve a more equitable and sustainable region.

More about the recommendations

Unlike other components of the plan, it is our hope that these recommendations can be implemented by 2030. They assume a near-term region similar to our region today, without fundamental changes to our institutions and decision-making processes. They track with our “baseline projections” that estimate continued strong need for housing production and an increasingly diverse and aging region.

Many of the strategies and actions across different recommendations mutually reinforce one another, using complementary approaches to address common challenges. Taken together, these recommendations are intended to serve as a roadmap to achieving our shared long-term goals. We look forward to working with a wide variety of allies and partners to see this change through.

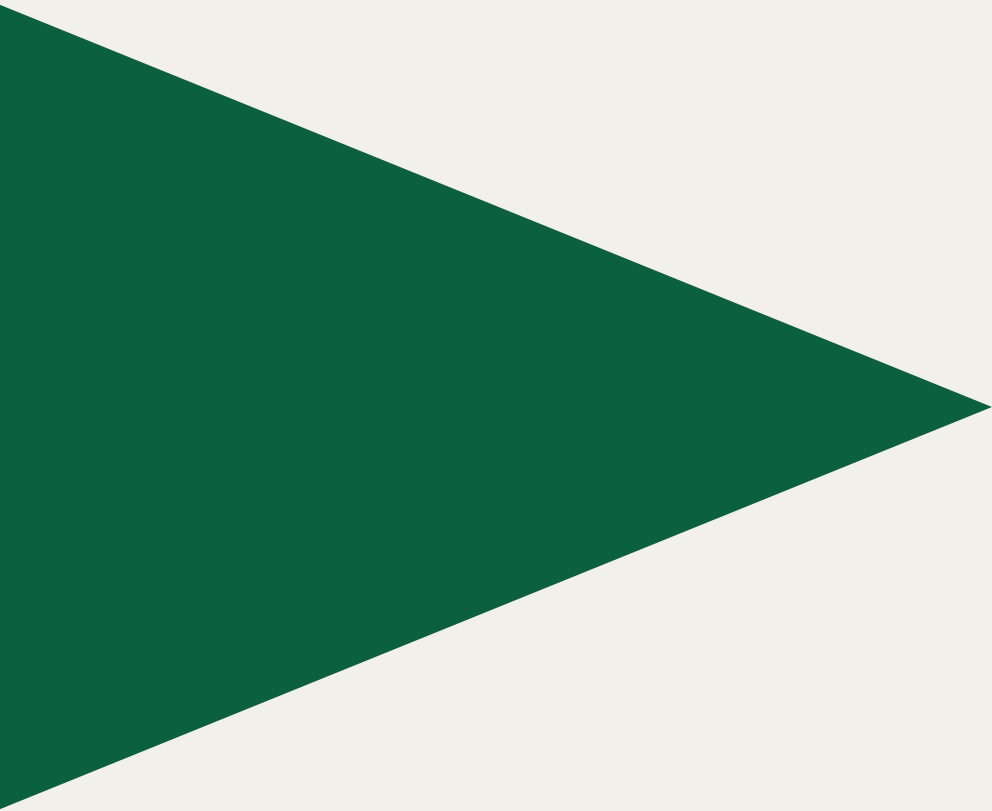
What is MetroCommon 2050 and how do the recommendations fit in?

MetroCommon 2050 is Greater Boston’s long-term plan. It’s about ways the Boston region can become more equitable, more prosperous, and more sustainable. MetroCommon is built on goals – that is, what people have told us they want. It defines action areas that give today’s issues context, and that reveal systems that require intervention. It goes deeply into key topics, finding insight in the trends, patterns, and idiosyncrasies of the region: research. The plan thinks through scenarios, looking at how the world and region might change, and how those changes could affect us. **And it makes specific recommendations for policy changes that can get us to our goals.** The part of the plan you’re looking at now is the **recommendations**.

How did MAPC get input on the MetroCommon 2050 recommendations?

It was important to MAPC not only that these recommendations be implementable, but that they be worth implementing. To ensure that, the recommendation development process was carefully considered. To start, one or two MAPC staff members were assigned to draft each chapter. Recommendations were developed in conversation with topical experts and after thorough research of best and emerging practices from across the country. Executive and External Advisory Committee members, MAPC staff, and the public provided input and feedback on the drafts. To refine and strengthen our recommendations, MAPC hosted 27 focus groups with practitioners and advocates, legislators, and individuals who would be most impacted by the ideas presented. The recommendations were also informed by the MetroCommon research findings. Staff continually incorporated feedback in an effort to center the recommendations around overcoming systematic disinvestment and to make impactful change in the region. We expect these recommendations to continue to shift over time as the needs of the region evolve. Furthermore, these ideas are focused on the topics that MAPC works on as a planning agency.

[Read more about the MetroCommon 2050 community engagement.](#)



Recommendation: Improve accessibility and regional connectivity

Strategy 1

Improve the reliability and affordability of the region’s public transit service to promote access to opportunity.

Public transit plays a critical role in bolstering the Commonwealth’s economy, connecting workers and residents with jobs, schools, errands, and essential services. With over one million trips taken by train, bus, and ferry in Greater Boston every day, transit plays an even more crucial function in the MAPC region, where many households do not have access to a private vehicle and thus depend on a well-functioning, affordable, and accessible public transportation network. In addition to residents who are less likely to own or have access to a private vehicle, transit is especially important to persons with disabilities, lower-income households, members of immigrant communities, persons of color, older adults, and youth who cannot drive. Besides fostering improved access to opportunity, investments in a robust and reliable public transit system are critical for the Commonwealth to achieve its climate goals, given that approximately 40 percent of Massachusetts’ greenhouse gas (GHG) emissions are from the transportation sector. Efforts to improve accessibility and regional connectivity directly complement work to enhance transit-oriented development and reduce single occupancy vehicle travel (see “**Reduce vehicle miles traveled and the need for single-occupant vehicle travel through increased development in transit-oriented areas and walkable centers.**”) and reduce transportation emissions (see “**Decarbonize the building and transportation sectors.**”)

- ▶ **Action 1.1: The MBTA should establish a regular public facing process to identify major capital investment needs and programs over a ten-year period in a financially unconstrained manner.** The public process should integrate the capital needs inventory and asset management plan to more clearly highlight the MBTA’s state of good repair and modernization needs. The process should also include a transparent system for prioritizing expansion projects that are financially unconstrained, cover a ten-year period, and are based on criteria that include advancing equity and climate goals, among other factors.

The MBTA’s long-range transit plan, Focus40, lays out for each mode (bus, commuter rail, subway, water transportation) a vision for 2040, as well as “big ideas” beyond 2040. The next challenge will be determining which specific projects and programs should be prioritized between 2020 and

2030, the amount of additional capital and operating funds the MBTA will need from the Legislature, which then should inform the rolling five-year financially constrained Capital Investment Plan (CIP).

Creating a planning process that bridges the gap between the 25-year, long range Plan for Mass Transit (PMT), and the five-year short-term CIP will enable the public and elected officials to more transparently view the rationale for each capital priority, the planning and design steps/timelines over the ten-year period, and the associated funding needed beyond what the MBTA anticipates its own source revenue will be.

- **Action 1.2: The MBTA should establish a means-based fare for low-income riders and the Legislature should support the program with ongoing operating funds.** In the United States, the proportion of expenditure on transportation is inversely correlated with income. The two lowest-earning quintiles of households spend 29 and 22 percent of their income, respectively, on transportation costs, as compared to the national average of 15.9 percent.¹ Additionally, low-income households are the most likely to forego using transit due to cost and the least likely to have alternative travel options.² This hinders access to jobs, education, and other services, exacerbating inequitable access to opportunity in the region.

To address the disproportionate transportation cost burden for low-income households, the MBTA should join the ranks of transit providers such as the Metropolitan Transportation Commission (MTC, San Francisco Bay Area),³ Metropolitan Transit Authority (MTA, New York),⁴ and Washington Metropolitan Area Transit Authority (Metro, Washington, D.C.)⁵ by offering a means-based fare for low-income households.

Transit agencies participating in these means-based fare discounting programs typically reduce the cost of transit trips by 20 to 100 percent for individuals making up to 200 percent of the federal poverty level.³ In many cases, fare discounting is implemented through bulk sales programs in which transit authorities partner with organizations such as nonprofits, government agencies, schools, and convention centers. In these instances, the partner organization is typically responsible for determining income requirements and administering the program. MTC, however, has opted to centrally administer the Clipper START program on behalf of all participating transit operators within the San Francisco Bay Area. Funding for this program is generated by the state sales tax on diesel fuel plus additional revenue from the statewide cap-and-trade Low-Carbon Transit Operations Program.⁶

The MBTA is currently investigating the feasibility of implementing a means-based fare program. Based on an MIT study of transit decision-making by low-income riders provided with 50 percent discounted fare, the MBTA estimates that setting the income requirement at 200 percent of the federal poverty level would result in 50,000 and 90,000 new commuters riding the subway or bus every year and between \$23.3 million and \$42.3 million in foregone fare revenue each year.⁷ As next steps, the MBTA has identified the need to determine an eligibility partner and program

1 <https://www.bls.gov/cex/2017/combined/quintile.pdf>

2 <https://www.wmata.com/about/board/meetings/board-pdfs/upload/3C-DC-Low-Income-Fare-Pilot.pdf>

4 <https://mtc.ca.gov/our-work/plans-projects/other-plans/means-based-fare-discount-program>

5 <https://www1.nyc.gov/assets/fairfares/downloads/pdf/Fair-Fares-FAQ-English.pdf>

6 <https://www.wmata.com/about/board/meetings/board-pdfs/upload/3C-DC-Low-Income-Fare-Pilot.pdf>

8 <http://equitytransit.mit.edu/>

7 <https://cdn.mbta.com/sites/default/files/2019-12/2019-12-16-fmcb-21-means-tested-fares-feasibility-study.pdf>

administration structure, to understand how to replace the fare revenue and to make IT and customer support upgrades. MAPC should support the MBTA's efforts by researching how other transit agencies have replaced lost fare revenue, coordinating with advocates to support program implementation, and advocating to the Legislature for ongoing operating funding for the program.

- ▶ **Action 1.3: Adopt a more comprehensive data collection strategy to improve understanding of travel behavior and mode choice, strengthen future planning efforts, and inform funding decisions.** In order to expand the accessibility of our transportation system, it is critical to understand how residents and workers are traveling throughout the Commonwealth today. Today, the state collects travel survey data about once every ten years. There are a few approaches the Commonwealth can pursue to gather more comprehensive travel behavior data. First, the Legislature should provide funding to MassDOT for more frequent ongoing travel survey efforts to understand trip purposes, mode choice, and demographic characteristics of travelers. While new data from mobile devices, sensors, and other sources provide novel, and often real-time information about travel activity, they cannot provide reliable information about traveler motivations, preferences, or characteristics. Many travelers, as well as those who choose not to travel, are invisible to those data feeds, and may therefore be ignored by public actions based on these new data sources. To develop better simulations of investments and policies, and to design policies and projects in ways that advance transportation equity, it is essential to survey travelers about their transportation needs. The Legislature should fund an ongoing travel survey program that utilizes modern practices such as app-based surveys, panel surveys, and stated preference inquiry. MassDOT should also consider an ongoing program similar to the American Community Survey, in which a very small sample of households is surveyed every year and results are pooled over multiple years; this approach will require less one-time expenditure and has the potential to provide better monitoring of changing travel behavior and preferences. Survey efforts will provide an essential complement to data from mobile devices and sensors.

Additionally, the Registry of Motor Vehicles (RMV) should enable regular updates to the Massachusetts Vehicle Census (MAVC) by producing annual and complete exports of registration and inspection records and making these available to MassDOT office of transportation planning and MAPC. The MAVC is a singular resource for understanding the vehicle fleet, EV purchases, GHG emissions, parking demand, municipal revenue and the impact of transportation investments and policies. It is valuable to both actors within Massachusetts and researchers nationally. The Secretary of Transportation or the Legislature should require the RMV to produce the necessary exports on a regular basis with the necessary data security protocols in place.

Strategy 2

Reimagine roadway corridors that connect into downtown Boston to encourage higher-occupancy modes to discourage single-occupancy vehicle travel.

Massachusetts has long been home to some of the worst traffic congestion in the country. In 2019, INRIX ranked Boston as the most congested city in the country, with drivers spending 149 hours, or more than six days per year, stuck in traffic.⁸ MassDOT's "Congestion in the Commonwealth" report highlights the growing burdens of congestion on workers' quality of life.⁹ While traffic can be viewed as a sign of a healthy economy, congestion in Massachusetts has been occurring outside peak hours and had worsened to the point where it was hindering access to jobs. In addition to the economic consequences of traffic congestion, this exacerbates the impact our transportation system has on rising GHG emissions. Solving the Commonwealth's congestion woes will be a key tactic needed to reduce emissions from the transportation sector. As the Commonwealth began to reopen, traffic rebounded much more quickly than transit ridership. To achieve an equitable and resilient economic recovery, the Commonwealth must make investments in transit and pursue additional measures to ensure that the congestion crisis is left in the past.

- ▶ **Action 2.1: The Legislature should require MassDOT to implement a congestion pricing pilot and use the revenue to expand complementary transit services.** Based on data gathered in MassDOT's "Congestion in the Commonwealth" report, the Legislature should require MassDOT to implement a congestion pricing pilot. A congestion pricing pilot would assess the impact that a surcharge on driving during peak demand times has on travel behavior. Based on the report, this would likely be an interstate highway corridor that connects into Boston, as these corridors are among the most congested in the Commonwealth. The report highlights several corridors that would be appropriate for a pilot, and MassDOT should consider what additional projects may be occurring at the same time to determine a suitable pilot location. Additionally, the pilot corridor should have adequate complementary transit services available to facilitate behavior change. Revenue generated from the pilot should be reinvested into transit services along the affected corridor. This includes improving and expanding regional bus service, ensuring appropriate parking availability at key commuter rail stations, and enabling reliable first-mile, last-mile connections to transit. MassDOT should include a reimbursement mechanism to offset the disproportionate financial impact on low-income individuals. Details of the pilot should be devised through the guidance of a commission, which would also advise on a longer-term congestion pricing scheme for the Commonwealth, including strategies to meet the needs of communities underserved by the current transportation system and most directly impacted by congestion.

8 <https://inrix.com/score-card-city/?city=Boston%2C%20MA&index=9>

9 <https://www.mass.gov/doc/congestion-in-the-commonwealth/download>

► **Action 2.2: MassDOT should incentivize cities and towns to dedicate more roadway space exclusively for buses and cyclists through competitive grant programs funded in the state’s Capital Investment Plan.** Most roadway miles in the Commonwealth are owned by cities and towns, so municipalities have a key role to play in reducing congestion by reallocating space on their local roadways. The Complete Streets funding program, which provides municipalities with funds for safe walking, biking, and transit accessibility improvements, enables cities and towns to advance smaller-scale, localized street safety improvements. To complement these safe street interventions, MassDOT should create a new competitive grant program in its CIP that would incentivize municipalities to reclaim roadway space for dedicated bus and cycling infrastructure. The FY2021 CIP, which totals up to \$3.7 billion, allocates funds for Complete Streets as well as implementation of the Massachusetts Bicycle and Pedestrian Plans. Additionally, many projects funded under roadway reconstruction include improvements to bicycle and pedestrian space. By creating a competitive grant program in the CIP to encourage more action at the local level around repurposing local street space for dedicated bus and bicycle facilities, MassDOT would achieve several goals - expanding active transportation infrastructure, tackling traffic congestion and reducing transportation emissions. Priority projects for such a program should include those that would serve transit-dependent populations, corridors with high-frequency and high-delay bus routes, and corridors that would provide improved regional cycling connectivity or transit access.

► **Action 2.3: Update Massachusetts Environmental Policy Act (MEPA) regulations to include an analysis of induced demand and vehicle miles traveled (VMT) generated by new roadway capacity expansion projects.** MEPA’s environmental review of transportation-related impacts focuses on congestion management and auto mobility, rather than on how driving impacts emissions and the lasting health effects of long auto commutes. Replacing the emphasis on the level of service (LOS) metric with vehicle miles traveled (VMT) will align MEPA with the Commonwealth’s goals to reduce transportation emissions, which will ultimately influence development patterns and investment decisions. The Executive Office of Energy and Environmental Affairs (EEA) should work with stakeholders to establish a standard methodology for measuring induced demand and estimating VMT to ensure consistency across project analyses.

The conventional approach to congestion management has relied on expanding roadway capacity. Unfortunately, this method has proven almost entirely ineffective. Research has shown that new roadway capacity in a congested area will become congested again, due to induced demand. As the cost of travel is reduced due to expanded capacity, travelers respond by taking more trips, longer trips, changing their routes, and shifting modes to vehicle use.¹⁰ In addition, adding capacity causes longer-term land use changes near transportation infrastructure. In result, the roadway reaches the same level of congestion but with even more vehicles on the road. Accurately accounting for induced demand in transportation analysis and

¹⁰ Hymel, Kent. “If you build it, they will drive: Measuring induced demand for vehicle travel in urban areas.”

planning is paramount to effectively addressing the region's traffic woes, reducing air pollution and GHG emissions, and redirecting investments to projects that improve access and mobility.

Best/emerging practice: California recently implemented a similar reform to the California Environmental Quality Act. California's new approach is based on the state's climate goals and provides recommended VMT per capita thresholds for each type of project. Projects that reduce VMT, such as active transportation and public transit projects, are subject to more streamlined review. Projects that increase VMT are subject to more thorough review, including an analysis of induced demand and assessment of measures to reduce VMT.

The California Department of Transportation released draft guidance on measuring induced demand for state highway projects. One recommended method is to use a simple multiplier based on elasticities from empirical studies of the induced demand effect. The multiplier assumes a 1 percent increase in vehicle travel for every 1percent increase in lane miles.¹¹ This method exposes the futility of roadway expansions for congestion management, as well as the potential environmental and health harms. Having a standard, accurate method for measuring induced demand is also critical to accurately measuring VMT impacts, and thus a central component of successful MEPA reform that focuses on VMT.

Strategy 3

Create safe, accessible, and well-connected network of safe cycling and walking infrastructure.

To decrease congestion and reduce GHG emissions from transportation, more people need to walk and bike. According to the 2014-2018 American Community Survey, only about 8 percent of the MAPC region's residents primarily walk or bike to work, though more bike or walk for a portion of their commute.¹² Building out networks of walking and cycling infrastructure not only increases the utility of these investments by expanding the number of destinations available and routes to choose from, but also increases the appeal of walking and biking for exercise and recreation. These active transportation investments would not only create more mode choice, but also expand access to healthy mobility options, supporting residents' wellbeing and quality of life. Additionally, walking and biking are often the first or last mile of a transit trip. By treating walking and cycling infrastructure as part of the larger transportation system, municipalities and the Commonwealth can improve transit accessibility and further reduce reliance on personal vehicles.

¹¹ <https://ncst.ucdavis.edu/research-product/induced-travel-calculator>.

¹² American Community Survey, 2014-2018.

► **Action 3.1: The state should continue to incentivize cities and towns to construct separated bicycle facilities such as trails, greenways, and buffered bike lanes with increased funding programs for design and construction.**

Off-street trails and greenways play a critical role in not only expanding opportunities for safe walking and biking, but also in providing important connections to open space and other destinations. MAPC's LandLine initiative, which envisions connecting 1,400 miles of trails and greenways throughout Metro Boston, has sparked interest across the region. However, in addition to financial concerns around design and construction, tremendous coordination is needed across multiple parties not only to ensure trails and greenways serve local needs, but also support a larger regional network of on- and off-street infrastructure.

In 2017, Governor Baker established an Interagency Trails Team comprising staff from MassDOT, EEA, and the Department of Conservation and Recreation (DCR). This group created the MassTrails funding program, which provided around \$5 million in matching grants through FY2020. The state should continue this initiative and increase funding for planning, design and construction, as well as state agency staff support to proactively advance higher quality bicycle infrastructure in the region.

► **Action 3.2: Cities and towns should adopt local policies to add separated bike facilities as part of most roadway reconstruction or repaving projects unless analysis recommends otherwise.**

One opportunity to advance safe cycling infrastructure is to work in coordination with other construction or utility projects that require opening roadways. To limit disturbances and to advance cycling projects more efficiently, municipalities should adopt requirements that separated cycling facilities be incorporated into roadway reconstruction or repaving projects unless engineering analysis recommends otherwise. Some municipalities have already implemented such policies. For example, the Cambridge Safety Ordinance requires the City to add a permanent separated bicycle lane when doing reconstruction on any roads that have been previously identified in the Cambridge Bicycle Plan.¹³ This minimizes disruption to all roadway users, reduces costs by limiting construction, and provides a clear pathway toward implementation of a local bicycle plan.

Strategy 4

Shape new and emerging mobility services to support local and regional transportation goals, including safety, reduced traffic congestion, lower GHG emissions, and equitable access for all people.

Over the past decade, there has been a surge of innovation in the transportation sector. From new personal micro-mobility vehicles to on-demand transit options, there are more ways to get around than ever before. At the same time, the COVID-19 pandemic has accelerated what was already rapid growth of the e-commerce industry. Nationwide, transactions from services such as DoorDash, Grubhub, Uber Eats, and Postmates increased approximately 200 percent between 2015 and 2020, generating an estimated \$26 billion in revenue in 2020.¹⁴ Online

¹³ http://cambridgema.iqm2.com/Citizens/Detail_LegiFile.aspx?Frame=&MeetingID=2353&Media-Position=&ID=8828&CssClass=

grocery sales for home delivery and pickup reached \$5.9 billion in November 2020, a threefold increase from August 2019.¹⁵

In response to rapid innovation in the transportation sector and the broader impact of transportation on the economy, land use, and the environment, Governor Baker established the Commission on the Future of Transportation, which considered several future transportation needs and challenges. Included in the Commission's analysis was guidance around creating a 21st-century mobility infrastructure to prepare for and capitalize on emerging changes in transportation technology and behavior. While this wave of innovation has created a tremendous opportunity to reimagine how to get around without depending on a personal vehicle, certain changes can actually add to traffic congestion and increase GHG emissions if not managed properly. The Commonwealth and cities and towns should prepare for a future that embraces new transportation technologies but plans for them in accordance with the goals of providing a safe, reliable, and affordable transportation system for all.

- ▶ **Action 4.1: Municipalities should develop flexible curb use policies to accommodate an influx of new mobility options and increased demand for curb space.** Today, the curb is a dynamic space, no longer reserved solely for parking private vehicles. In many locations, there is escalating pressure on the curb by competing uses, such as loading pick-up/drop-off activities, bicycle parking, bus pick-up/drop-off, ride-hailing, taxi services, and private parking. To manage demand, cities and towns should develop flexible curb use policies based on mobility option, street type, and population served. These efforts should focus on downtown streets where demand for on-street parking is the greatest and include regular data collection to ensure permitted uses are aligned with local demand. Developing such a policy should include input from the business community, which cares deeply about consumer access to storefronts, and residents that use new mobility services.

Cities elsewhere have begun experimenting with permitting various curb uses for various streets. Seattle's [Flex Zone/Curb Use Priorities](#) defines the curb lane as a "flex zone" and allocates ranked curb use priorities (mobility, access for people, access for commerce, activation, greening, and storage) according to street types. Comprised of guiding principles, policies, and tactics, Toronto's Curbside Management Strategy is a holistic policy approach and implementation plan that manages curbside space that supports mobility and access for people and goods.

- ▶ **Action 4.2: Require transportation network companies (TNCs) and e-commerce to share trip-related data with government planning entities and establish standards for doing so.** Data are a critical component for effective planning and policymaking, as well as for advancing effective design, operation, and maintenance of transportation networks. However, local governments and regional and state agencies are not necessarily equipped with data that provides a clear enough picture of how various mobility services are impacting our transportation system. This is most evident in the case of TNCs such as Uber and Lyft. Much of the data that we have about

13 http://cambridgema.iqm2.com/Citizens/Detail_LegiFile.aspx?Frame=&MeetingID=2353&Media-Position=&ID=8828&CssClass=

14 Statista, "Online Food Delivery," (2021), <https://www.statista.com/outlook/dmo/eservices/online-food-delivery/united-states>; and Business of Apps, "Food Delivery App Revenue and Usage Statistics (2021)," <https://www.businessofapps.com/data/food-delivery-app-market/#1.1>.

15 Brick Meets Click, "November 2020 Scorecard: Customer & Sales Mix Shift Toward Delivery & Pickup" <https://www.brickmeetsclick.com/nov-2020-online-grocery-scorecard-customer-sales-mix-shift-toward-delivery-pickup>.

the impact of TNCs on the transportation system summarizes their activity in broad terms and provides generalized statistics about travel patterns and mileage. Lack of detailed information about TNC trips means we cannot determine the true extent to which these trips contribute to congestion and GHG emissions, whether all neighborhoods are receiving equitable access, and to what extent ride-hailing complements or competes with more sustainable modes of transportation. These same dynamics will continue to be true as new technologies become available and rapidly proliferate.

A similar case holds true for e-commerce companies. Warehouse and logistics facilities continue to proliferate throughout the Commonwealth. While traditional retail employment has remained relatively stagnant in Massachusetts from 2010-2019, transportation/warehousing employment has grown 31 percent.¹⁶ The rise of online retailing and e-commerce shifts the responsibility of getting goods in the hands of purchasers from residents to private companies, which means more trips from employees as well as delivery vehicles. This results in longer trips taking place over a larger portion of a 24-hour day and on more of our roadways. However, without any data to assess the impact of the growth of e-commerce on our transportation system, devising targeted policy solutions to reduce congestion and emissions while enabling efficient delivery is challenging.

The Legislature should require companies that provide new mobility services to share trip level data to state and local governments, regional planning agencies, and other entities involved in transportation planning. TNCs are an appropriate place to start, and similar requirements should be instated for other new mobility services that may become more widely available in the future, such as micromobility services or autonomous vehicle fleets. With more granular data from the public and private sectors and the capacity for analysis, municipalities and transportation agencies will be well-positioned to make decisions based on actual travel behavior to advance policies and investments. A similar data-sharing framework should be established for the e-commerce sector. Any data sharing legislation must include the most robust data privacy standards, including limiting the number of entities that are allowed to receive data and explicitly identifying permitted uses (see Action 4.3 below). Legislation should identify a pathway for the appropriate state entity to develop further data sharing regulations and model user agreements, as needed.

- ▶ **Action 4.3: Establish a cross agency task force to consider issues around transportation data ownership and privacy.** Along with the proliferation of new transportation technologies comes the opportunity to collect more data about mode choice, travel behavior, and more. While this data can provide valuable insight for planning and policy making, the appropriate safeguards must be in place to ensure the data remains secured and solely used for these purposes. To develop a comprehensive framework for managing new and emerging mobility data concerns, the Commonwealth should establish a task force to consider the privacy and data ownership issues associated with new streams of information from TNCs, the RMV, AFC 2.0, mobile applications, sensors, and other sources. This task force

¹⁶ Bureau of Labor Statistics, 2010-2019.

should be charged with inventorying current practices with regard to data ownership and sale; identifying risks associated with storage and sharing of traveler data; enumerating public policy needs for traveler data; and making recommendations for new regulations, intermediaries, and policies that would ensure that the Commonwealth can benefit from new data sources while also ensuring travelers can have reasonable expectations and control about how their personal information is stored, shared, and used. At the same time, MassDOT, municipal governments, regional planning entities, new mobility companies, and other stakeholders should simultaneously explore ways to establish transportation data repositories. These serve as platforms to give the public and private sectors necessary information to make informed decisions to improve the accessibility and efficiency of transportation networks by managing congestion, reducing GHG emissions, and advancing safety. Two examples of such models are the SharedStreets initiative hosted by the National Association of City Transportation Officials (NACTO) and the Open Transport Partnership and the Transportation Data Collaborative hosted by the Washington State Transportation Center (TRAC).

Homes for Everyone

Ensure that people of all races and income levels have equal access to affordable housing through homeownership and rental opportunities in every community



Recommendation: Ensure that people of all races and income levels have equal access to affordable housing through homeownership and rental opportunities in every community

Strategy 1

Expand rental and homeownership opportunities by enforcing anti-discrimination protections and affirmatively furthering fair housing.

Forty years after the passage of the 1968 Fair Housing Act, discriminatory housing and lending practices continue to shape access to opportunity for historically marginalized communities. The Act was intended to guarantee housing choice free from discrimination. Yet, many Greater Boston residents struggle to find safe, affordable homes in neighborhoods close to jobs, transportation, and good schools. In addition, difficulty accessing homes in neighborhoods with good air quality has contributed to a public health crisis that is disproportionately impacting people of color in communities with higher exposure to toxic air and overcrowding. Across the region, exclusionary zoning and permitting practices effectively prohibit housing for families with children, which also has the effect of excluding individuals based on race and class. These exclusionary practices include direct and indirect restrictions on the development of multi-family and smaller homes and restrictions on the number of bedrooms and age of occupants. In 2018, the National Fair Housing Alliance recorded the highest number of complaints of fair housing violations since record keeping began. Enforcement of existing anti-discrimination protections would provide accountability in cases of unequal treatment of protected groups, but it will take new policies and proactive measures by governments at every level to undo decades of structural and institutional barriers that continue to perpetuate segregation.

- ▶ **Action 1.1: Increase funding for fair housing education, testing, and enforcement.** Congress must ensure adequate funding of the Fair Housing Initiatives Program (FHIP) and the Fair Housing Assistance Program (FHAP), which provide critical resources to ensure enforcement of fair housing laws. The Massachusetts Commission Against Discrimination, along with the state Attorney General's Civil Rights Division, carries out fair housing enforcement activities at the state level. However, the majority of fair housing activities are carried out by federally qualified fair housing organizations and non-profit legal advocates with limited resources. One

¹ National Fair Housing Alliance. (2019). 2019 Fair Housing Trends Report.

key way to advance fair housing enforcement would be through creation of an active fair housing agency in Greater Boston. The Commonwealth could fund an assessment, assemble a coalition of groups to apply for HUD funds, or solicit other agencies to open a Boston office and support their funding application. In the short-term, the agencies and organizations responsible for enforcing anti-discrimination laws need resources and support to coordinate and provide consistent fair housing enforcement across the region and to adapt fair housing practices to the digital age. Similarly, organizations that conduct fair housing testing should receive additional resources to expand their work and strengthen coordination with enforcement entities.

▶ **Action 1.2: Require municipalities and state agencies to affirmatively further fair housing.** The Affirmatively Furthering Fair Housing (AFFH) Rule, signed into law by President Obama, directed state and local governments that received HUD funding to identify and proactively address the discriminatory outcomes of their policies and programs. Despite recent federal rollbacks, some state governments have voluntarily continued AFFH-related planning and implementation of strategies to reverse historic patterns of segregation in their communities. The Commonwealth should require that state agencies and all local governments affirmatively further fair housing in accordance with the principles of the AFFH Rule and the related MA Executive Order 478.² A statewide obligation would ensure that these activities are occurring across the state and not just within HUD entitlement communities. Every decision about the distribution of place-based resources and services should consider whether, how, and to what extent the outcome will reduce disparities and improve choices for protected classes. This decision-making should be integrated into criteria for specifically identified state or federal funds, transportation assistance, and discretionary awards for housing, community and economic development, transportation, education, environmental remediation, and conservation. Specific guidelines should be developed to evaluate the integration of AFFH decision-making in local plans, zoning and permitting processes, agency rules and regulations. The Commonwealth should establish tools and mechanisms to allow Regional Planning Agencies to work with municipalities and other stakeholders in developing regional AFFH analyses that enable communities to establish and implement common policies. Furthermore, state programs should provide bonus points and additional resources for outcomes that decrease segregation, with special attention to supporting municipalities with limited capacity. Along the same lines, members of Planning Boards and Zoning Boards of Appeals should be required to participate in state-funded fair housing training.

▶ **Action 1.3: Prevent discrimination on the basis of rental history, credit, and history of incarceration.** Landlords routinely employ screening practices that deny housing to people with poor credit history, past convictions, and prior history of eviction. This practice perpetuates discrimination against people of color, especially low-income Black women who are disproportionately impacted by evictions.³ Landlords typically rely on tenant screening reports

² Executive Order 478, signed by Governor Deval Patrick, requires all state agencies to “consider the likely effects that its decisions, programs, services, and activities will have on achieving non-discrimination, diversity, and equal opportunity.”

³ Desmond, Matthew. (2014). Poor Black Women Are Evicted at Alarming Rates, Setting Off a Chain of Hardship. How Housing Matters Policy Research Brief. MacArthur Foundation.

prepared by private companies that are not held accountable for ensuring that the information they report is correct. In a competitive rental market, tenants often must apply for multiple apartments, incurring fees for individual application screenings. Traditional screening reports may turn up outdated or inaccurate information about a tenant’s eviction, criminal, or credit history. Different states have employed diverse strategies to address these barriers, including sealing eviction records, allowing tenants to appeal the disclosure of certain records, and encouraging the use of reusable tenant screening reports that allow tenants to verify that all of the information collected about them is true. In Massachusetts, existing fair housing protections do not go far enough to protect tenants from exclusion based on outdated or inaccurate information about their rental history, credit, and history of incarceration, and the Home Rule process limits the actions with which municipalities can require landlords to comply. Pending legislation would allow for sealing of Massachusetts Housing Court records ([H.1808/S.921](#) *An Act promoting housing opportunity and mobility through eviction sealing (HOMES)*), filed by Representative Michael J. Moran and Senator Joseph A. Boncore).

Strategy 2

Preserve affordability of the existing housing stock to help stabilize neighborhoods experiencing rapid change and to maintain housing opportunities at various cost levels.

Creating new, diverse housing options across communities is important to meet housing demand and ensure residents can find housing that meets their needs throughout their lifetimes. Yet, redevelopment pressures or expiring Affordable Housing deed restrictions pose a threat to existing lower-cost housing options. Since 2015, the Department of Housing and Community Development (DHCD) and its partners have preserved the long-term affordability of more than 15,000 units at risk of expiring affordability.⁴ The state invests significantly in preservation and its housing preservation law, Chapter 40T, is a nationally recognized best practice. The state and local communities should sustain these efforts, which are mainly directed at large multifamily deed-restricted Affordable Housing developments. However, most low- and moderate-income households live in unsubsidized housing units with affordability typically dependent on a softer market and/or the age or condition of homes. In rapidly gentrifying neighborhoods, these “naturally occurring affordable housing” (NOAH) units are the most vulnerable to speculative investment. Preservation of NOAH properties has gained significant interest in the last couple years, with innovative approaches emerging locally and across the country. Massachusetts and its municipalities should learn from these experiences and implement programs to preserve NOAH.

- ▶ **Action 2.1: Establish a statewide program to facilitate access to quick-strike acquisition and property improvement financing, especially for unsubsidized, smaller properties deemed “naturally affordable.”** Across many Greater Boston neighborhoods, NOAH properties are typically older triple-deckers and small multi-family buildings. In gentrifying neighborhoods, developers

⁴ CEDAC. (2018). Massachusetts Is Successfully Tackling The “Expiring Use” Housing Problem. Insites Blog.

and investors are quickly acquiring these properties, remodeling them, and raising rents or tearing them down to make way for luxury developments. Efforts by mission-oriented developers to acquire these properties and ensure their units are deed restricted to be affordable to lower-income households have been gaining steam. NOAH acquisition requires quick, nimble access to financing to compete with market-rate investors, which can be a challenge for developers accustomed to complex development deals involving multiple funding streams. Locally, the 100 Homes Project in Somerville and the Boston Opportunity Acquisition Program have been able to support quick-strike acquisitions by “pre-qualifying” responsible developers for a set amount of funding, which can then be used to purchase NOAH properties.

To support local efforts to acquire NOAH properties, the Commonwealth should establish a program that provides resources for cities and towns to mobilize public-private partnerships for a more comprehensive suite of planning, as well as financing tools to facilitate NOAH preservation. While often seeded with public funding, these NOAH impact funds also generate investment by private lenders, philanthropists, local employers, and institutions. In addition to supporting acquisition, these initiatives can support pre-development costs and property improvements. The need for large-scale improvements in a potential acquisition is generally cost-prohibitive and deleterious to the success of a NOAH project without substantial additional subsidy. The Commonwealth should also provide resources to expand the use of project-based vouchers to maintain affordability of newly preserved scattered-site homes.⁵

- ▶ **Action 2.2: Align housing quality, accessibility, and energy efficiency programs to cost-effectively bring older properties up to code.** NOAH properties generally have higher operating costs because they are smaller and therefore cannot achieve the same efficiencies of scale as large multifamily buildings. They are also older properties and, therefore, more likely to require upgrades to meet basic health and safety standards. In weaker housing markets, these requirements can be a disincentive to rehabilitating a property because the investment might not be recouped. Even in stronger housing markets, rehabilitation costs disincentivize acquisition of properties that need more than modest improvements. These types of rehabs are particularly important for low-income, people with differing abilities, and older adults. By 2050, there will likely be an additional 150,000 households headed by someone over age 70, indicating a significant need for accessibility and other improvements that can allow older adults to age in place, if desired.

Upgrading NOAH properties does more than bring them in compliance with health and safety standards. Executed effectively, it can make these homes more energy efficient, accessible, healthy, and even lower long-term operating costs for landlords and occupants. In Massachusetts, many communities offer programs that tackle these building improvements independently (e.g., various [energy efficiency programs](#), [Get the Lead Out](#), the [Home Modification Loan](#), emergency repair grants, etc.). This

⁵ Scattered-site housing refers to affordable housing built on non-contiguous sites throughout a given community. Each scattered-site housing development includes fewer units than a typical large scale affordable housing development.

fragmented approach can undermine the co-benefits of executing these improvements cohesively. Other states, such as Vermont and Washington, have integrated healthy housing and energy efficiency programs, and have demonstrated significant health improvements among residents.⁶ The Legislature should pass legislation proposed by the Gateway Cities Caucus and filed by Representative Antonio Cabral and Senator Brendan Crighton ([S.1831/H.281](#), *An Act relative to neighborhood stabilization and economic development*), which would establish a commission to evaluate approaches to bringing older structures up to code in weak real estate markets, including by exploring strategies to better integrate various programs and resources. While integrating these programs in the commission's scope would be an effective way to begin addressing fragmentation, local governments can and should advance integration of their own municipal residential efficiency and healthy housing initiatives.

Strategy 3

Help low-income households and members of marginalized groups achieve stable housing and homeownership through targeted assistance.

The cost of housing is the single greatest barrier to stable tenancies and the expansion of homeownership. This has been exacerbated by decades of discriminatory policies that have resulted in unequal ownership rates and access to areas of opportunity. Beyond supply side interventions to promote the creation and preservation of affordable housing, rental and homebuyer assistance can help households close the gap between their income and a home that supports their family's wellbeing. Nationally, fewer than one in four households eligible for federally funded rental assistance receives it even though there is strong evidence demonstrating that rental assistance helps prevent homelessness and promotes greater housing stability. Stable housing provides people with the opportunity to focus on their health, education, financial mobility, and even homeownership. Homeownership is associated with greater housing stability later in life and remains the primary vehicle for wealth creation. Yet, communities of color remain largely excluded from homeownership. In Boston, Black and Latinx households are almost three times more likely to be denied for a mortgage loan than white households.⁷ Decades of discriminatory housing practices also mean that homebuyers of color are less likely to be able to tap the "bank of mom and dad" to make a down-payment on a home, to pay for college, or to make other critical investments in their future. More robust and targeted investment in first-time homebuyers can help counteract this glaring disparity.

⁶ E4 the Future, Inc. (2016). Occupant Health Benefits of Residential Energy Efficiency.

⁷ Campen, J. (2018). Changing Patterns XXV: Mortgage Lending to Traditionally Underserved Borrowers & Neighborhoods in Boston, Greater Boston, and Massachusetts 2017. Massachusetts Community & Banking Council

▶ **Action 3.1: Increase funding for rental assistance and supportive services to promote stable tenancies, economic mobility, and better health outcomes.**

Recent evidence has found that pairing rental assistance with services can promote housing stability, better health outcomes, and economic mobility among recipients. This is an important strategy for preventing homelessness. For example, Section 8 voucher recipients and public housing

residents are eligible for the Family Self Sufficiency Program, a savings and financial counseling program with a strong record of improving financial mobility among participants. Many other supportive service approaches, some facilitated by innovated health system and housing partnerships, are proven to improve recovery and health outcomes among residents with substance use disorders or other complex health conditions.

More funding is necessary to expand programs to a greater number of eligible households and to support the operating costs associated with facilitating access to services for these households. Waitlists for federal and state-funded rental assistance remain long. The Massachusetts Legislature should continue to increase funding for the state-supported rental assistance program, the Massachusetts Rental Voucher Program, as it has for the last few years. The state also approved an update to the payment standards, which better aligns voucher payments with market rents, increasing voucher recipients' competitiveness in the rental market. The Commonwealth should also allocate separate resources to improve the efficiency and effectiveness of service delivery of rental assistance programs and supportive services. In the short-term, more local governments should consider supplementing federal and state rental assistance by leveraging Community Preservation Act (CPA) funding, as demonstrated by the many communities that have adapted to provide rental assistance to residents financially impacted by the COVID-19 pandemic. One example of a pre-existing local rental assistance initiative is the Town of Boxborough, which for several years has operated a program that provides some low-income households with \$250 in monthly rental support.

Action 3.2: Diversify and increase overall resources for first-generation homebuyer down payment, closing cost, and mortgage interest rate buy-down assistance, especially for members of underserved populations. More than two-thirds of renters view the down payment as a barrier to owning a home, a challenge that is most common in expensive housing markets such as Greater Boston. In 2019, DHCD and Mass Housing launched the Racial Equity Advisory Council for Homeownership, which aims to increase the rate of non-white homeownership in the Commonwealth. One strategy the Council considered is the development of a statewide down payment and mortgage interest buy-down fund with support from public and private sources. Mass Housing currently offers a down payment assistance loan for first-time homebuyers and several municipalities operate their own down payment assistance programs.

There is considerable opportunity to expand resources for these types of initiatives. More municipalities should leverage CPA and housing trust fund resources to support down payment and interest rate buy-down initiatives, as the City of Boston is modeling with its new ONE+ Boston Mortgage program. The Commonwealth should also support employer and anchor institution participation in these initiatives through tax incentives and matching funds. There are many precedents for this across the country, including employer-sponsored programs that pair municipal down payment match with on-site homeownership counseling, and even low-interest

and forgivable loans (e.g., Washington D.C., Philadelphia, Baltimore, etc.). Furthermore, language access should not be a barrier to purchasing a home. The Commonwealth should ensure that all documentation that requires signature of prospective homeowners are translated and made available in the five most commonly spoken languages in Massachusetts, besides English. This includes all disclosure forms and any documentation relating to home inspection.

In limited and carefully defined circumstances, it might be appropriate to reduce or eliminate long-term deed restrictions in programs that subsidize affordable homeownership opportunities to help low-income/low-asset households, and especially families of color, to build intergenerational wealth.

Action 3.3: Provide first-generation homeowner counseling and direct relief to facilitate homeownership among student loan borrowers. Even though higher education is associated with lower rates of unemployment and higher earnings later in life, student loan debt is a significant barrier for many younger homebuyers. According to the Federal Reserve, about 20 percent of the decline in homeownership among young adults is attributable to student loan debt.⁸ Student debt reduces borrowers' ability to save for a down payment and contributes to higher debt-to-income ratios that make it more difficult to qualify for a mortgage. Student debt is also associated with lower credit scores later in life, one reason being that higher debt burdens contribute to higher rates of default. These barriers are likely more acute for borrowers of color, especially Black households, who on average graduate with higher loan burdens and are more likely to experience default.⁹

For many young homebuyers, addressing student debt will be a first priority on the way to purchasing a home. Several Boston area community development corporations already offer student debt counseling alongside other homeownership counseling programs. The Commonwealth should support these initiatives, as well as other forms of targeted homebuyer programming. State and local government should also consider integrating loan forgiveness options into existing first-time homebuyer assistance and lending. Strategies include allowing borrowers to consolidate student and mortgage debt, offering soft second mortgages to help borrowers pay off debt, or offering grants comparable to down payment assistance. An example from another state, the Maryland Smart Buy Program, pairs debt forgiveness with first-time homebuyer financing. In its first three years, 2016-2019, the program has facilitated the purchase of 216 homes.

8 Mezza, A., Ringo, D., and Sommer, K. (2019). Can Student Loan Debt Explain Lower Homeownership Rates for Young Adults? Consumer and Community Context, V.1, N.1. Federal Reserve Board Division of Research and Statistics

9 Researchers have associated these higher default rates with a variety of factors including riskier loan products, greater attendance at for-profit institutions, employment discrimination, wage disparities, lower ability to receive parental repayment support.

Best/emerging practice: Racial disparities in homeownership are the highest they've been in the last 50 years.¹⁰ Homeownership rates for Massachusetts households of color lag well behind nationwide rates (34 vs. 46 percent).¹¹ Efforts to eliminate these racial inequities must seriously consider the decades of discriminatory practices and unequal access to wealth creation opportunities that have contributed to these outcomes. A reasonable means to address these impacts would be to create programs that directly target supports to households most impacted by past discriminatory practices, in effect by creating race-conscious programming. That can often be challenging, since the same laws that protect individuals from racial discrimination do so in part by prohibiting race-specific programming.

The Massachusetts Affordable Housing Alliance (MAHA) has found an innovative approach to address disparities in homeownership by focusing on first-generation homebuyers. Launched in 2019, the Saving Towards Affordable & Sustainable Homeownership (STASH) program aims to close the racial homeownership gap by providing first-generation homebuyers with homebuyer counseling and matching savings towards a down payment on a home within Massachusetts. The STASH program has attracted even greater participation from people of color (96 percent) compared to MAHA's other first-time homebuyer programs, which have historically drawn more diverse participation. Almost half of the program's first 50 participants met the match requirement, and six purchased a home in the last year. By focusing on first-generation homebuyers, MAHA is better able to serve a population that lacks access to generational wealth often enjoyed by peers whose parents have previously owned a home. One in five home purchases in the United States is made possible by a parent's financial support, according to a report from Legal & General, a UK based financial services firm.¹² MAHA indicates this program is the first of its kind in the country and serves a population - first-time homebuyers of color - which needs special and concerted attention to overcome generations of racial discrimination.

10 Urban Institute. (2020). Breaking Down the Black-White Homeownership Gap. Urban Wire.

11 U.S. Census Bureau. (2017). American Community Survey. As presented by MassHousing's Innovation Team.

12 Legal & General. (2019). New Study Ranks 'The Bank of Mom and Dad' 7th Largest Housing Lender in the U.S. in 2018. <https://www.lgamerica.com/about-us/news/detail/2019/01/27/New-Study-Ranks-The-Bank-of-Mom-and-Dad-7th-Largest-Housing-Lender>

Homes for Everyone
Ensure adequate protections
against displacement for
communities and residents
of color, low-income
communities, and renters



Photo Courtesy of Chris Lovett

Recommendation: Ensure adequate protections against displacement for communities and residents of color, low-income communities, and renters

When long-time residents must leave their homes or communities, they often lose the support of friends and family. Many times, displaced households must live farther from employment, education and other opportunities, and these issues may be compounded by reduced access to affordable public transportation. In these ways and more, residential displacement destabilizes all aspects of life and can lead to homelessness. Preventing displacement will reduce homelessness and allow households of all backgrounds to make their own choices of where they would like to live, contributing to diversity, increased social capital, and economic vitality.

Displacement is a complex phenomenon that impacts various communities in several ways and at different rates. MAPC's residential displacement research provides operational definitions for various forms and scales of displacement that are addressed in this policy recommendation.¹ Additionally, MAPC's housing submarket analysis, which categorizes neighborhoods across the region into seven housing submarkets based on similar demographics and housing characteristics, provides a framework for how policy actions may be approached differently based on varying local contexts.²

Policy Strategy 1 addresses some of the systemic causes of displacement that happen at the community level. Members of a community are susceptible to displacement due to historic or present housing discrimination, environmental hazards, and limited financial resources. Policy Strategy 2 includes actions to prevent displacement at the household level due to increased housing costs, shifting housing market dynamics, exploitative landlord behavior, and other displacement pressures. Finally, Policy Strategy 3 proposes ways to protect individuals directly threatened by displacement and those who experience its affects.

1 Flingai, S. (2020). Framework for Residential Displacement Research at MAPC: Definitions and Approaches. The Metropolitan Area Planning Council. Retrieved May 30, 2021, from <https://metrocommon.mapc.org/system/refinery/resources/W1siZiIsIjIwMjE0MDMvMDQvNjI2FwYzUyejM5Ml9GcmFtZXdc-mtfZm9yX1Jlc2lkZW50aWFsX0Rpc3BsYWNIbWVudF9SZXNlYXJjaF9hdF9NQVBDLnBkZjIjXQ/> Framework for Residential Displacement Research at MAPC. pdf.

2 Reardon, T., & Oliver-Milchman, K. (2021). Housing Submarkets. The Metropolitan Area Planning Council. Retrieved May 30, 2021, from <https://housing-submarkets.mapc.org/>.

Strategy 1

Protect areas at risk of displacement by ensuring new public and private investments benefit long-time residents and support community ownership.

Displacement in lower-income communities, including many communities of color, can be caused directly by foreclosures and evictions. It can also be caused indirectly by the rising rents associated with limited housing supply, increased home values, public improvements, and the ancillary impacts of market-rate investment and development. Lasting impacts from COVID-19 have the potential to increase displacement in many neighborhoods due to evictions and foreclosures after the federal moratorium was lifted, long-lasting unemployment after government benefits expire, or the purchase of residential buildings by speculators.

Local and state actors need to take a proactive approach to minimize displacement and mitigate its negative impacts. Federal, state and local governments can intervene in numerous ways to enable tenants at risk of eviction to remain in their homes or to become first-time homebuyers. Furthermore, public agencies can take steps to help homeowners avoid foreclosure and to enable long-time, owner-occupant landlords to remain in their homes and provide “naturally occurring affordable housing” (NOAH) to their tenants. Policy interventions should be targeted toward communities that have been most impacted by the lasting effects of redlining, disinvestment, historic waves of displacement, and the most severe impacts of COVID-19.

- ▶ **Action 1.1: Support community ownership by providing suitable publicly owned land to community land trusts (CLTs), community development corporations (CDCs), and other non-profit organizations.** Municipalities and the Commonwealth can alleviate displacement pressure by increasing the amount of land available for affordable housing development, and ensuring it remains accessible to households of various incomes by placing that land in community ownership via institutions such as CLTs or CDCs. Public land that is suitable for affordable housing includes vacant public parcels, sites purchased by a state or local government specifically for affordable housing production, properties seized by foreclosure, and other municipal or state-owned sites except for park land.³ Ideally, public land should be disposed of or transferred to non-profit organizations at no cost, and housing built on that land should be climate resilient, energy efficient, and deed restricted in perpetuity, except in cases of limited equity appreciation applicable to homeownership units. See Action 1.3 in “**Reduce vehicle miles traveled and the need for single-occupant vehicle travel through increased development in transit-oriented areas and walkable centers**” for further recommendations regarding public land disposition.
- ▶ **Action 1.2: Target federal and state funding to support people of color who own or aspire to own a home through first-generation homeownership programs and others that support homeowners.** Massachusetts and its communities receive grants from the federal Community Development

³ While existing parks should not be used for affordable housing development, new parks may be created through cluster development of vacant greenfield sites. Cluster development organizes small to mid-sized homes, usually cottages, around shared open space.

Block Grant (CDBG) to support housing and economic development investments. However, homeownership programs represent a small percentage of CDBG projects at the state and local level. During the pandemic, the Governor and Legislature provided millions of dollars to emergency rental and mortgage assistance, setting a recent precedent for making sweeping funding allocations to address pressing housing needs. Now the Commonwealth will receive roughly \$10 billion in federal funds from the American Rescue Plan Act (ARPA), and it will be critical to set priorities for how this funding is used.⁴

Homeownership continues to be a meaningful means of wealth creation in this country, but government and private sector practices historically and, to some extent, continue to explicitly and implicitly exclude communities of color. The Commonwealth should devise a targeted approach for how to use some ARPA funds to support homeownership for households in communities that have been and continue to be the most impacted by redlining. Additionally, such attempts should explicitly support first-generation homeownership as a strategy to help people of color purchase homes in communities of their choice and address some of redlining's legacy, such as through increased funding for first-generation homebuyer down payment assistance. To complement this effort, the Commonwealth should continue programs that support a homeownership pathway for existing renters, homebuyer education, home modification programs that support aging in place, and other similar existing programs.

It is important that the state not just provide opportunities for aspiring first-generation homeowners, but also ensure they and other eligible homeowners can stay in their homes. State tax breaks or "property tax assistance programs" should be offered to income-eligible homeowners, particularly in communities of color, and the federal government should reinstate the 2008 homebuyer federal tax credits⁵. ARPA funds provide a unique opportunity to provide this type of relief and assistance to support first-generation homeownership.

Best/emerging practice: Over the past few years, municipalities nationwide have begun to provide reparations to Black residents, many of them focusing on remediating the effects of decades of discriminatory housing policies through home ownership and housing opportunities. Communities such as Evanston, Illinois and Asheville, North Carolina have begun rolling out funds and programs. In March 2021, Evanston, a suburb of Chicago, approved \$400,000 of City funds for a housing grant program that can award eligible individuals up to \$25,000 to be used for costs such as down payment/closing costs, home improvements and mortgage assistance.⁶ These funds are part of a larger \$10 million dollar commitment over ten years to distribute reparations through various programs. In June 2021, Asheville's City Council approved \$2.1 million for its community reparations fund, focused on wealth creation through homeownership, affordable housing development, and investments aimed at addressing discriminatory housing policies.⁷

4 Outlined in the U.S. Department of The Treasury's fact sheet, it lists housing assistance, investments in housing and neighborhoods, "services to address individuals experiencing homelessness, affordable housing development, housing vouchers, and residential counseling and housing navigations assistance to facilitate moves to neighborhoods with high economic opportunity" as permissible uses of federal funds by states and municipalities.

5 Singletary, M. (2011, April 5). Remember that \$7,500 first-time homebuyer credit? It's now an IRS headache. The Washington Post. Retrieved April 21, 2021, from https://www.washingtonpost.com/business/economy/remember-that-7500-first-time-homebuyer-credit-its-now-an-irs-headache/2011/04/05/AF5zpwqC_story.html

6 U.S.A., Evanston, Illinois. (2020, August 27). Evanston Local Reparations. Retrieved June 20, 2021, from <https://www.cityofevanston.org/government/city-council/reparations>

7 McDaniel, P. (2021, June 8). Asheville City Council Makes Initial \$2.1 Million in Reparations Funding Appropriation (U.S.A., Asheville, North Carolina). Retrieved June 20, 2021, from <https://www.ashevilenc.gov/news/asheville-city-council-makes-initial-2-1-million-in-reparations-funding-appropriation/>

► **Action 1.3: Adopt fair housing requirements and a displacement risk impact assessment to ensure development in areas experiencing displacement pressure benefits long-time residents and helps meet local housing needs.**

Before the emergence of COVID-19 and throughout the pandemic, certain Metro Boston neighborhoods were facing rapid neighborhood change, with rising housing costs that contribute to gentrification of lower-income neighborhoods and displacement of long-time residents. The public health and economic impacts of the pandemic mean many residents face even greater challenges making rent and mortgage payments. Of great concern are large developments and those that add a high number of new market-rate housing units, since they can have a transformative effect on housing markets in neighborhoods experiencing displacement pressure.

As the region continues to grow, new sites for large-scale development and redevelopment will be harder to find. These developments offer precious opportunities to expand and diversify the housing stock, but too often are not designed to meet the housing needs of existing and nearby residents, such as by providing deeply affordable housing or family-sized housing units. Communities should guard against the many forms of displacement that can be caused or triggered by a large-scale development, such as exclusionary displacement that causes residents to gradually lose access to affordable housing in their community due to rising housing costs and lack of new affordable housing development. To prevent this form of community-level displacement, a substantial portion of new housing development must be accessible and affordable to households in the community where it is proposed.

In 2021, the City of Boston adopted a provision that incorporates fair housing requirements and a displacement risk assessment into its zoning code. The Affirmatively Furthering Fair Housing (AFFH) ordinance can be used as a model for other communities in the region. See Action 1.2 in **“Ensure that people of all races and income levels have equal access to affordable housing through homeownership and rental opportunities in every community”** for more detailed recommendations in this area. While adopting AFFH-aligned policies are applicable to all housing submarkets across the MAPC region, tools such as the displacement risk impact assessment may be more applicable in certain housing submarkets than in others, and local conditions will need to be considered.

Displacement risk assessments should be required only for large-scale developments and should not make the process of building affordable housing more lengthy or difficult. CDCs and other developers proposing majority or 100 percent Affordable Housing should not be subject to a displacement risk assessment since these proposals are already positioned to meet local housing needs and affirmatively further fair housing.

Best/emerging practice: The City of Boston's Affirmatively Furthering Fair Housing Zoning Amendment

In 2021, the City of Boston became the first major city to adopt fair housing requirements, including a displacement risk assessment, into its zoning ordinance. These requirements prompt developers of large residential projects to learn about the impacts of past exclusionary housing policies, address any issues related to their site(s), and align their development proposals with the needs of the surrounding population. The components of Boston's Affirmatively Furthering Fair Housing zoning regulations are summarized below:

The City of Boston's AFFH zoning amendment applies to large developments, defined as projects that construct or expand buildings by at least 50,000 square feet or rehabilitate or change the use of at least 100,000 square feet of floor area. Developments subject to the requirement must include the following: (1) a description of how the project will further goals of overcoming segregation and fostering inclusive communities; (2) an assessment of historical exclusion and displacement risk (The Boston Planning and Development Agency (BPDA) produces this report and provides it to the developer for reference in the planning review process); (3) requirement for BPDA to use an Affirmatively Furthering Fair Housing Assessment Tool to determine the effects of the proposed development on residents and businesses before development plans are approved, and; (4) a description presented by developers of planned measures to achieve Affirmatively Further Fair Housing goals and mitigate unintended development impacts that may cause displacement pressure. Developers may choose from a list of intervention/mitigation options provided by the City. There are additional intervention lists for projects in areas of high displacement risk and areas that have been impacted by historic exclusionary housing policies. Projects in these areas must include interventions from all applicable intervention lists.

Best/emerging practice: Mitigating displacement caused by flooding and natural disasters⁸

Norfolk, Virginia recently enacted new zoning regulations to require all new development to meet a “resilience quotient” wherein all proposed infrastructure is evaluated on climate resilience criteria – for example, reducing flood risks, supporting mobility options, and energy efficiency. All new buildings and existing structures that have experienced two major flood events are now required to comply with a three-foot freeboard standard (the former standard was one foot. As a result of frequent hurricanes and erosion, Palm Beach County, Florida established a Disaster Redevelopment Plan that recognizes “the importance of creating and maintaining emergency shelters, temporary housing...and long-term affordable housing, especially for low-income residents, all while limiting redevelopment in vulnerable sites...Tactics to achieve this objective include identifying areas with the most vulnerable housing stock and making sure that temporary housing sites are located nearby, assisting in locating rental units for temporary housing”.

As we think about rebuilding the economy and toward 2050, it is important to ensure the Commonwealth and local governments can react quicker to providing emergency housing to those on the front lines of climate change and first responders during natural, medical, or human-made disasters. For more details on how to improve the region’s climate resiliency, please see, [“Prepare for and respond to the threats of climate change.”](#)

- ▶ **Action 1.4: Adopt state legislation that allows municipalities to enact local real estate transfer fees to generate funding for displacement mitigation efforts.** The Legislature should pass [S.868/H.1377](#): An Act empowering cities and towns to impose a fee on certain real estate transactions to support affordable housing, filed by Senator Jo Comerford and Representative Mike Connolly, which would give municipalities the ability to levy a tax on certain real estate transactions, with an additional option to include another fee if the property is sold multiple times in a calendar year or is above a certain value (e.g., over \$2 million per unit). This additional fee is designed to capture revenue from properties that might be a part of the speculative housing market and direct that revenue to a public good. Representatives Dylan Fernandes and Liz Malia filed a similar bill ([H.2895](#), An Act empowering cities and towns to impose a fee on home sales over one million dollars to support affordable housing), but it only applies to transactions above \$1 million.

As a part of this legislation, municipalities that choose to generate revenue from real estate transfer fees would be required to allocate these funds into a local housing trust fund or to earmark these funds for anti-displacement initiatives. Funds should be used for local efforts that preserve naturally occurring affordable housing through property acquisition, preserve existing deed-restricted affordable housing, or produce new deed-restricted

⁸ Gregg, R. M., & Braddock, K. N. (April, 2020). Climate Change and Displacement in U.S. Communities. Climate Change and Displacement in U.S. Communities. Retrieved from <http://www.sparcchub.org/wp-content/uploads/2020/04/Climate-Change-and-Displacement-in-U.S.-Communities.pdf>

affordable housing reaching deep levels of affordability. When possible, this revenue should be spent within neighborhoods where real estate speculation is occurring so this funding directly mitigates displacement pressure.

Strategy 2

Prevent displacement at the household level through regulations that better align the market with the needs of those experiencing housing insecurity.

If left unchecked, market forces driving housing supply and demand and dictating rental and mortgage costs can increase displacement pressures, especially in a market where local authorities often limit the development of multifamily and affordable housing. To combat rapidly inflating housing costs, cities and towns and the Commonwealth should stabilize rental costs, maintain a healthy supply of affordable housing, and minimize opportunities for speculative investment.

► **Action 2.1: Adopt state enabling legislation that allows municipalities to stabilize rental costs by prohibiting large and short-term increases in rent.**

The high cost of rent in Greater Boston has long been an issue that has threatened the vitality of the region. In the 1990s, the communities of Boston, Somerville, and Brookline passed measures that regulated rental increases, but these local policies were halted after voters passed a statewide ballot petition that prohibited this practice. Since then, housing prices throughout Greater Boston have soared to record highs and the situation has escalated into a housing crisis. This crisis existed well before April 2020 when the Governor declared a state of emergency in response to COVID-19 and signed a state law that temporarily banned evictions.

Rents in Greater Boston are among the highest of any large metropolitan area in the country. Before the pandemic, just over half of rental households (50.6 percent statewide) were “housing cost burdened”, meaning they spent over 30 percent of their income on rent, and about a quarter reported spending over 50 percent of income on rent, which is defined as “severely cost-burdened”.^{9, 10} Creative and innovative actions must be taken to ensure that renters can continue to live in the region without sacrificing safety, health, and overall quality of life. Rent stabilization strategies that prevent high rent spikes in short periods of time can be part of the solution to tackle displacement and high costs of housing in the region. However, these actions alone cannot solve this challenge; rent stabilization cannot and should not replace new construction of affordable housing units.

Today, there are examples of nuanced rent regulations and policies. For example, in 2019, Oregon adopted the first statewide rent control policy in the country¹¹. The Oregon law caps rent hikes at 7 percent plus inflation during any given 12-month period and bans “no-cause” evictions. This regulation applies to all municipalities in the state. Colorado, Illinois, and Washington are also considering similar statewide measures.

9 U.S. Census Bureau, American Community Survey (2011-2015)

10 Veal, S. (2019, August 27). Interactive Map Shows Renters are More Cost-Burdened Than Homeowners Around the Country. Retrieved June 10, 2021, from <https://www.jchs.harvard.edu/blog/interactive-map-shows-renters-are-more-cost-burdened-than-homeowners-around-the-country>

11 Walker, A. (2019, March 08). Oregon just enacted statewide rent control. Could it be a model for the U.S.? Retrieved from <https://archive.curbed.com/2019/3/8/18245307/rent-control-oregon-housing-crisis>

The Commonwealth should allow municipalities to impose a cap on rent increases within a set period. The specific requirements of this policy should be determined based on local market conditions and, as these conditions change over time, the requirements should be adjusted by a board of community members appointed by the municipality. Caps should also be in effect when an apartment is vacated so that landlords are not incentivized to pressure their tenants to leave so they can raise rents and so new tenants can also benefit from this policy.

Critics say that regulating rents will discourage new development because developers will choose communities that do not have these regulations over those that do. However, this issue can be addressed by exempting new development from these requirements for a certain period based on local market conditions, and by setting rent stabilization policies regionally. Municipalities with similar demographics and housing characteristics should set rent stabilization policies together to avoid deterring new development. MAPC also recommends that the state support the enforcement of building code standards (as described in Policy Action 3.3) and provide funding to help landlords keep their properties up to code, since another critique of rent stabilization is that caps on rent would discourage landlords from doing so.

While acknowledging that local conditions vary in each municipality, enabling legislation should incentivize local jurisdictions to tackle this issue regionally. To make this recommendation impactful, the Executive Office of Housing and Economic Development (EOHED) should issue clear guidelines and criteria for options of permissible actions municipalities could pursue if they decide to establish rent stabilization. Rent stabilization actions should be based on local conditions and differing characteristics across housing submarkets. However, setting this policy regionally can avoid pitting communities against each other as discussed above, and MAPC can provide technical assistance to support the establishment of regional rent stabilization policies.

- ▶ **Action 2.2: Increase state funding and expand eligibility requirements for rental and utility assistance programs and make assistance readily available during state emergencies.** State funding for rental and utility assistance programs should be increased overall and these funds should be targeted to adequately meet the needs of households disproportionately affected by natural disasters, economic recessions, public health emergencies, and other state emergencies. To reach these households, existing programs must be more flexible and easier to access. Examples of programs that need increased funding, more flexible eligibility requirements, and/or improved distribution mechanisms are the Massachusetts Rental Voucher Program (MVRP), Residential Assistance for Families in Transition (RAFT), and the Massachusetts Low-Income Housing Tax Credit Program. Additionally, resources within the Housing Preservation and Stabilization Fund and the statewide Affordable Housing Trust Fund should be pre-authorized for quick deployment into rental and utility assistance programs during state emergencies.

- **Action 2.3: Adopt state enabling legislation allowing municipalities to enact no net loss policies.** No net loss policies require affordable housing and unsubsidized rental housing that is lost to renovation, conversion, or demolition to be replaced within the same neighborhood or municipality. The replacement would need to be made by the prospective developer or by partnering with another developer, non-profit, or municipality. For example, a developer working on a project that results in the loss of affordable housing or rental housing units would need to replace these units by building them or by “purchasing” the equivalent number of housing units from another developer that agrees to build them.

Local no net loss policies are appropriate for historically disinvested communities that are starting to experience significant displacement pressure. These policies should be included in municipal plans and enforced through zoning districts that target these areas. For the policy to succeed, municipalities will need to maintain and update an inventory of deed-restricted affordable housing units and total rental housing units. Fees and fines can be used to help enforce the policy, although clarity about the requirements and procedures to achieve no net loss are the most important tools for encouraging compliance.

Best/emerging practice: Condominium Conversion Ordinances

The City of Somerville has a Condominium Conversion Ordinance that regulates condominium conversions and a Condominium Review Board made up of five Somerville residents that enforces these regulations. The ordinance requires at least a one-year notice to the Condo Review Board before a rental housing unit can be converted and gives the tenant the first right to purchase the converted condominium housing unit. The ordinance also provides additional protections to disabled, elderly, low- or moderate-income tenants. These conditions and other tenant protections must be met for the Condominium Review Board to grant a conversion. The ordinance is currently facing legal challenges, so state legislation will be critical to ensure the continuance of the Somerville ordinance and to encourage the adoption of similar protections elsewhere. Chicago’s Ordinance 606 increases fees for demolition and conversion of housing units from \$500 to \$250,000 and requires this revenue to go to an affordable housing trust fund for buildings that do not include the minimum affordable housing requirements along a new transit line corridor. Municipalities can explore changing their current fees so that if conversions do occur, they can increase the revenue raised to create new affordable units.¹²

12 Bloom, M., & Hauser, A. (2017, May 23). Anti-Gentrification Plan Makes Developers Pay Big For Building Near 606. Retrieved May 30, 2021, from <https://www.dnainfo.com/chicago/20170523/logan-square/606-affordable-housing-ordinance-gentrification-ald-maldonado-ald-moreno/>

- ▶ **Action 2.4: Amend M.G.L Chapter 40T to include tenant right of first refusal and funding to support tenant property acquisition.** Adopted in 2009, M.G.L. Chapter 40T allows the DHCD to make or match an offer when a subsidized property at risk of expiring affordability is sold. Chapter 40T has helped preserve 9,594 units of housing across the state since 2009. The program applies to many, but not all subsidized housing programs. The Community Economic Development Assistance Corporation (CEDAC), which administers the program, has identified several measures to improve it. Chapter 40T should be amended to give tenants the first right of refusal (or tenant opportunity to purchase) so they have the first option to buy their buildings when landlords decide to sell. State funding should also be provided for technical assistance that supports organizing tenant associations, forming partnerships with community development corporations, creation of community land trusts, legal aid to help structure acquisition deals, quick-strike acquisition funds, and low-interest deferred loans to support the purchase of properties.

Best/emerging practice: In Washington, D.C., the Tenant Opportunity to Purchase Act provides technical assistance and low-interest loans to tenant groups that want to purchase their buildings when landlords decide to sell. The policy applies to both single-family and multifamily housing. Between 2002 and 2013, the program helped preserve over 1,400 housing units.

Strategy 3

Prevent displacement at the individual level by strengthening and expanding state legal protections.

We must enact policies that protect individuals at risk of displacement. These include legal protections should residents find themselves in an eviction or foreclosure proceeding, along with other policies that alleviate the risk of foreclosure and eviction in the first place.

- ▶ **Action 3.1: Pass state legislation guaranteeing tenants' a right to legal counsel in certain eviction and foreclosure proceedings.** The Legislature should ensure all residents subject to certain eviction and foreclosure proceedings are guaranteed a right to legal counsel. If an individual or household facing eviction is unable to afford an attorney, they would be eligible for a state-appointed attorney paid by the Commonwealth. Giving tenants a right to counsel will protect tenants by leveling the playing field in an often-unbalanced court proceeding where most landlords have legal representation. Ensuring both sides are represented by counsel would also improve the fairness of eviction proceedings and reduce the incidence of overcrowding and homelessness, as well as the demand for costly state-funded homelessness expenditures. Beyond a right to counsel in eviction proceedings, the Commonwealth should take steps to increase funding to legal services agencies that provide legal counsel to tenants even prior to eviction proceedings (which can help to reduce the incidence of eviction),

and help tenants to defend their rights in cases in which landlords or property owners might violate tenant rights or engage in harassment. State funding should also support organizations that provide mediation services that can help resolve disputes between landlords and tenants.

- ▶ **Action 3.2: Strengthen foreclosure protections.** The state must increase funding for foreclosure prevention and education to protect homeowners. Additionally, the state and localities should consider property tax limitations for income-eligible property owners in a targeted effort to help prevent homeowners from facing financial hardships that lead to foreclosure. States such as Connecticut and Maine have created state mortgage loan modification and assistance programs. In those states, program participants must meet certain criteria that include income limits, demonstration of six months of current payments, demonstration that they face or are likely to face delinquency, and demonstration of hardships they cannot control.

Best/emerging practice: The MassHousing MI Plus Mortgage includes mortgage insurance that provides up to six months of principal and interest payments if borrowers lose their jobs. This job loss protection comes at no additional cost to the borrower. Public health crises like COVID-19 are instances in which such protection is crucial for many households. In response to the pandemic, there have been federal and state moratoriums on evictions and foreclosures, and significant financial assistance to renters and homeowners. Another example of a sweeping response to emergencies and natural disasters is New York City’s Asian Americans for Equality (AAFE) fund. This is a Community Development Fund that “operates one of the only Homeowner Disaster Recovery loan products in New York City, which is activated post-emergency such as after hurricanes, utility blackouts, terrorist attacks, gas explosions, building structural damage, and other unforeseen emergencies.”

Action 3.3: Prevent indirect displacement caused by landlord negligence by expanding capacity for code enforcement with state funding and resources. The state should provide funding for municipalities with limited code enforcement capacity to hire code enforcement officers to ensure landlords maintain and update their properties. When rental housing deteriorates and the landlord isn’t held accountable, the tenant is forced to live in unsafe or unclean conditions. Landlords may also use this situation to indirectly force their tenants to leave before upgrading the rental housing units for new, higher income tenants. Expanding code enforcement capacity can deter this behavior and ensure quality housing for vulnerable households.

If code enforcement results in repair or the need for a tenant to be temporarily displaced, tenants should be given a legal right to occupy the housing unit once it has been brought into compliance. The landlord should pay for temporary relocation costs and, in the case of small landlords unable to afford relocation costs, municipal and/or state resources should be accessible by these tenants.

Inspections should be made by local code enforcement officers in accordance with local rental inspection ordinances/bylaws, and code violations by property owners should be subject to fines and penalties. Evidence of an adequate code enforcement program should be required for Housing Choice designation and associated funding.

Best/emerging practice: On-site supportive services can be offered as an option for tenants who face physical or emotional health issues, financial stress, or need assistance for their families. Support staff can also play a role as an intermediary between the tenant, legal counsel, and the landlord to help prevent evictions. Generally, housing professionals across the region have worked to expand access to supportive housing services but these services are costly and so cannot be provided at all affordable housing developments. However, significant federal investments, such as ARPA dollars, offer an opportunity to fund more services that are critical to helping ease the challenges of housing instability and homelessness. Relatedly, more data will help shape more targeted policy interventions to alleviate the risk of displacement and provide resources to tenants and homeowners in need. California has proposed legislation to create rental registries at municipal or regional levels to track evictions and displacement, and to provide greater data to monitor the rental market.¹³ In Massachusetts, this could be built off the existing municipal short-term rental unit registry.

13 U.S.A, The State of California. (n.d.). Rental Registry Proposal. Retrieved May 1, 2020, from http://www.leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=201920200AB724.



Recommendation: Promote cultural development and preservation, public art and public realm design

Strategy 1

Provide direct relief to artists, cultural workers, and cultural organizations in the wake of the COVID-19 pandemic and lay the groundwork to cultivate a more equitable, resilient, and cohesive sector.

The COVID-19 crisis has highlighted the vulnerabilities and challenges facing the arts and culture sector – a major part of the Massachusetts economy and critically important to our quality of life. Long-term closures and restrictions on in-person gatherings have decimated the revenues and all but eliminated the contract work that supports artists and cultural producers across the Commonwealth. According to data released by the Massachusetts Cultural Council (MCC) in March 2021, arts and cultural nonprofits reported more than \$588 million in lost revenue due to COVID-19 related cancellations, closures, and other impacts since March 2020. In surveys conducted by MCC, artists, art teachers, and other individuals in the arts and culture sector who live and work in every region of the state reported more than \$30.4 million in lost personal income and 67,986 cancelled gigs/jobs since March 2020. At the same time, the pandemic has highlighted and exacerbated fragility and inequity in the cultural sector. Low pay, the prevalence of gig and contract work, lack of access to traditional job benefits, an over-reliance on formal education (including graduate degrees such as a master’s in fine arts), and other inequitable hiring practices have restricted access to the field and favored artists and cultural workers with greater access to financial, social, and political capital. The result is a sector that is unable to support diverse talent, including people of color and people with disabilities, who are particularly vulnerable to disruption.

Creative expression and cultural representation and participation are fundamental to the human experience, health and well-being. As such, creating the policy conditions for arts and culture to thrive requires adoption of a cultural equity framework that affirms the value of all cultures and recognizes that systemic and institutional forms of oppression have erected barriers to cultural participation and self-determination, particularly for people of color. In addition to dismantling these barriers, achieving cultural equity requires expanding opportunity, reallocating resources, and developing capacity for ongoing advocacy and policy

change efforts. The disproportionate impact of the COVID-19 crisis on the cultural sector has only deepened these issues, demonstrating the need both to provide robust support for the sector as part of larger investments in the state's economic recovery and to provide direct support to artists and cultural workers so that they may fulfill their human and creative potential.

- ▶ **Action 1.1: Establish a new Massachusetts Cultural Council Program on Arts, Culture, and Heritage Policy tasked with promoting conditions that allow creative and cultural expression to flourish for all throughout the Commonwealth.** The MCC is currently working to provide an overarching vision and coordination of state efforts to promote recovery and resilience that will inform the development of a cultural policy and advocacy agenda. COVID-19 presents both a challenge and an opportunity to rethink how the state of Massachusetts can support this vital sector, now and for the future. A coordinated recovery effort can help establish new lines of communication and collaboration within the sector, align the sector with public health, housing, environment, and economic development priorities and lay the groundwork for permanent programs that outlive the pandemic.

The state should establish a new program area within MCC to facilitate coordination and collaboration across state, regional, and local entities that work in and provide resources to the arts and culture sector, including the Massachusetts Historical Commission (MHC), Executive Office of Housing and Economic Development, Massachusetts Office of Travel and Tourism (MOTT), the Mass Downtown Initiative and Commission on Indian Affairs, MassDevelopment, the Executive Office of Energy and Environmental Affairs, the Executive Office of Labor and Workforce Development, and the Executive Office of Health and Human Services. In managing this program, MCC will have the opportunity to connect with regional and local agencies that are active in the arts and culture space.

This program will help direct individuals, organizations, and agencies to appropriate resources, coordinate the development and distribution of relief funding for the arts and culture sector, integrate creative and cultural workers into recovery efforts throughout the Commonwealth, and advocate for recovery programs and investments across the state to address the needs of individuals and organizations within the sector. Additionally, this program should provide clear guidance and communications, grounded in public health data, around reopening arts and cultural activity and integrating arts and culture into public life.

- ▶ **Action 1.2 Establish a Cultural Equity Task Force to ensure that the new MCC Program on Arts, Culture, and Heritage Policy focuses on issues of cultural equity as a key part of its mission.** This Task Force should include representatives from tribal historic preservation offices and/or entities that promote and preserve Native American culture in Massachusetts and New England; cultural organizations and individuals focused on promoting and preserving African American, Latinx, and Asian American history and culture in Massachusetts and New England; representatives

of community development corporations and community development financial institutions; and representatives working to promote access to and representation in arts and culture for people of color, individuals with disabilities, immigrants, refugees, incarcerated people, and other populations that face barriers to cultural access and participation. The Task Force should cultivate and strengthen networks of cultural producers and residents who face barriers to cultural expression or participation and cultural organizations led by, with, and/or in service of these communities; establish metrics and data collection efforts to measure indicators of equity in the cultural sector and workforce; and establish benchmarks for equitable public and private sector support, access to capital, and equitable funding of arts producing organizations, small creative businesses, community cultural centers, and collectives. By communicating and collaborating with community-based, regional, and municipal entities, the new Program on Arts, Culture, and Heritage Policy, along with the Cultural Equity Task Force, offer the promise of addressing critical issues affecting equity in the arts and culture sector.

► **Action 1.3: Establish an Equitable Culture Program to advance social and cultural equity across all levels of the cultural sector.** The program should be guided by the Cultural Equity Task Force and implemented through the MCC Program on Arts, Culture, and Heritage Policy. Such a program could engage in the following activities to advance equity in the arts:

- Research and share benchmarks and best and emerging practices for diversity, equity, and inclusion in organizational structures, governance, staffing, programming, hiring and procurement practices, and wages for arts and cultural organizations and other entities that hire or contract with cultural workers and artists;
- Identify, convene, and cultivate a learning network of community and cultural leaders focused on implementing anti-racist practices across all facets of organizational structure and culture;
- Establish a program among the Massachusetts Cultural Council Program on Arts, Culture, and Heritage Policy and other appropriate entities to provide training and resources for artists and cultural workers on topics including healthcare, tax assistance, business development, and labor rights - including organizing, advocacy, and unionization;
- Fund and bolster support for programs that expand access to cultural opportunities and participation and create new opportunities for populations that face barriers to preserving and practicing cultural traditions.

► **Action 1.4 Expand and streamline access to employment opportunities, financial relief, and other resources for workers and organizations in the arts and culture sector, including non-profits, independent businesses, and sole proprietors.** Artists and cultural workers have a unique and vital role to play in recovery and rebuilding efforts. As creative thinkers and community connectors, they often see solutions others don't, bring creativity to problem-solving, and are the linchpins of partnerships that build vital community connections. All levels of government (federal, state, and local) should engage in the following best practices:

- Contract with artists, cultural workers, and cultural organizations across a wide variety of public activities, including crisis response and recovery, economic development and workforce, housing development and rehabilitation, transportation infrastructure, climate mitigation and resilience, and public health;
- Encourage and assist the private sector to hire and contract with artists, cultural workers, and cultural organizations, with an emphasis on building creative and economic output for all parties to these transactions, and for the communities where they occur;
- Expand direct financial assistance to artists, teaching artists (including art teachers)¹, and cultural practitioners and provide explicit permission for artists (including performing artists), cultural workers (including independent contractors), and arts and cultural organizations to apply for relief funding, loans, tax credits, and other financial supports for entrepreneurs and small businesses; streamline application processes and reporting requirements; and increase investment in organizations led by and serving communities of color;
- Expand eligibility requirements for rent and mortgage relief, food assistance, and healthcare to include independent workers and workers with a combination of employment and other income sources; and
- Invest in capacity-building programs that can equip artists and cultural organizations with skills for a post-pandemic reality, including virtual program delivery, digital audience development and marketing, and online sales.

¹ A Teaching Artist is a professional visual, performing, or literary artist who works in schools and in the community. <https://www.creativeground.org/faq/what-teaching-artist#:~:text=The%20Association%20of%20Teaching%20Artists%20has%20compiled%20a,who%20works%20in%20schools%20and%20in%20the%20community.>

Best/emerging practice: Guaranteed income and creative workforce programs for artists. To support artists living and working in the City of San Francisco during the COVID-19 pandemic, the City of San Francisco partnered with local organizations to launch two innovative programs. [San Francisco Creative Corps](#) – a partnership among the San Francisco mayor’s office, Yerba Buena Center for the Arts (YBCA), the Office of Economic and Workforce Development, and the San Francisco Parks Alliance – has employed artists as community health ambassadors to promote healthy behavior during the pandemic. Subsequently, the Office of Racial Equity at the San Francisco Human Rights Commission, YBCA, Grants for the Arts, and the San Francisco Arts Commission joined forces to launch the [Guaranteed Income Pilot for the City of San Francisco](#). Administered by YBCA, this program provides 130 San Francisco-based artists a \$1,000 monthly stipend for six months. California Governor Gavin Newsom has since signaled support for an expanded creative workforce program; in January 2020, he announced a proposal to dedicate \$15 million for a similar pilot program at the state level. In May 2021, Bill SB 628, the [Creative Workforce Development Act](#), which would require the California Workforce Development Board and the state Arts Council to work collaboratively to design the program, was passed by the Senate and now awaits passage by the Assembly. A similar program run by Arts Wisconsin with support from the Wisconsin Economic Development Corporation (WEDC), [“We’re All In” Creative Workforce Program](#) is already operating in nine communities across the state.

- ▶ **Action 1.5: Establish a variety of stable, robust funding sources including but not limited to a “Percent for Art” program to engage artists and cultural workers in community development and public infrastructure projects and advance an equitable and innovative recovery for the Commonwealth.** The extended closure of arts and culture organizations and venues, shifts to online learning, and the cessation of in-person events and activities that generate contracts and revenue streams for artists and arts workers has put the arts and culture sector in crisis. Prior to the pandemic, public funding for arts and culture was limited and distributed across many grant programs, municipalities, and government entities. Establishing a \$200 million stabilization fund for the state’s cultural sector through S.2246, “An Act to Rebuild the Commonwealth’s Cultural Future, filed by Senator Edward Kennedy responds to this direct and urgent need. To ensure creative, culturally responsive solutions to ongoing challenges facing the Commonwealth, the state should establish a statewide Percent for Art policy to unleash creative imagination in the development, design, and improvement of public works. This program would enable arts and creativity to permeate the physical spaces of our communities. In addition, the Commonwealth should establish new funding to be administered by the MCC to support creative community development that enables all forms of

creative and cultural expression to support, rebuild, and sustain our civic life and communities. Funding through both Percent for Art and creative community development will ensure that artistry, creativity, and cultural expression will play an even stronger role as we rebuild a post-COVID economy and society.

Best/emerging practice: King County, Washington supports a robust creative economy through [two complementary funding strategies](#). The county's 1 Percent for Art Ordinance mandates that construction projects done by county government direct one percent of eligible parts of the budget towards public art portions of the project. Additionally, the county's lodging tax authorizes cities and counties to impose an excise tax of two percent on the sale of or charge made for the furnishing of lodging for periods of fewer than 30 consecutive days. At least 37.5 percent of this tax revenue must fund art, cultural and heritage facilities, as well as the performing arts.

Best/emerging practice: Minnesota's Arts and Cultural Heritage Fund receives 19.75 percent of the sales tax revenue resulting from the state's Clean Water, Land and Legacy Amendment to support arts, arts education and arts access, and to preserve Minnesota's history and cultural heritage. A portion of the dollars appropriated from the Arts and Cultural Heritage Fund is distributed through grant programs administered by the Minnesota Department of Administration, the Minnesota Historical Society, the Minnesota Humanities Center, the Minnesota Indian Affairs Council, and the Minnesota State Arts Board.

Strategy 2

Launch a creative community development program that affirms creative and cultural expression as a basic human need, expands opportunities for creative and cultural expression and participation for people of all ages and backgrounds, and advances equitable community investment and preservation.

Arts, culture, and heritage make the places where we live, work, and play healthier, more connected, and more appealing. Additionally, access to arts education, cultural connections, and lifelong opportunities for creative and cultural expression is vital to the mental health and well-being of individuals and communities. Moving beyond recovery from COVID-19 to a resilient and just Commonwealth requires investment in creative community development as a foundation for healthy, adaptable, and equitable communities.

- ▶ **Action 2.1 Enact policies for residential properties, neighborhoods and development to ensure that homes equitably provide space for private cultural practices and creative expression.** Limit the ability of municipalities to restrict the use of homes for creative and cultural pursuits (e.g., through noise and home-occupation or accessory-use regulations). Promote residential building codes and programs to offset costs to ensure that new multi-family or small-lot residential development integrates sound proofing and sustainable waste management to mitigate potential nuisance impacts of creative expression in dense neighborhoods.
- ▶ **Action 2.2: Invest in lifelong access to arts and culture across the Commonwealth.** To ensure a flexible, skilled, and resilient workforce, the Commonwealth should strengthen programs that provide culturally resonant arts education and creative workforce training and support. For example, the Cultural Equity Task Force should advise MCC on conducting an equity assessment of access to culturally responsive curricular and extra-curricular arts education and programs and work to address equity gaps. The MCC Program on Arts, Culture, and Heritage Policy should work with other state entities to expand investment in arts and culture for public health, community building and youth development initiatives; coordinate skill-building and job opportunities for the creative workforce; facilitate access to culturally resonant programming and creative expression for older adults; and create opportunities for representation from arts and culture organizations on MassHire Workforce boards.

Best/emerging practice: Here in Massachusetts, the Essex County Community Foundation has partnered with organizations across the Commonwealth to provide [capacity building trainings](#) for artists and non-profit cultural organizations in the wake of COVID-19. In Seattle, [The Creative Advantage](#) program emerged from a racial equity assessment of arts education in Seattle public schools and works to expand equitable access to arts education through a partnership among the Seattle public school district, the Seattle Office of Arts & Culture, Seattle Foundation, and more than 100 community arts partners.

- ▶ **Action 2.3 Incentivize opportunities to integrate artists, cultural workers, cultural organizations, community-based organizations, and creative businesses into community and economic development initiatives, development review, public realm improvements, and infrastructure projects.** The MCC Program on Arts, Culture, and Heritage Policy should work with MassDevelopment to expand aspects of the Transformative Development Initiative statewide - for example by linking creative placemaking investments with economic development programs (e.g., the Under-Utilized Property Program) to spur creative placemaking and economic revitalization initiatives, particularly in communities hit hardest by the COVID-19 pandemic. In addition, MCC may advocate for state departments and agencies to assign additional points to grant applications that meet objectives such as facilitating cross-sector partnerships among artists, arts

and cultural organizations, community-based organizations, and local businesses, and allow grant funds to support compensation for creative and community partners. Grant-making agencies should establish mechanisms that allow communities to articulate and advocate for their visions for community investment and prioritize applications that demonstrate the potential to support minority-and-women-owned business enterprises and to expand access to resources and decision-making for residents who have been targeted for racial, cultural, and linguistic exclusion, as well as community-based organizations that serve those resident populations. Potential opportunities include the Local Rapid Recovery Plan Program, MassDOT Complete Streets and Shared Streets and Spaces programs, the Massachusetts Department of Health's Community Health and Healthy Aging Funds, and the Urban Agenda Grant Program. The Cultural Equity Task force should advise the MCC Program on Arts, Culture and Heritage Policy on the development of requirements, incentives, benchmarks, and evaluation processes to ensure that principles of diversity, equity, and inclusion shape the purpose and structure of all funding opportunities.

- ▶ **Action 2.4: Expand access to private spaces of cultural production and participation. Incentivize opportunities to expand cultural space development and management and expand access to capital for developing, upgrading, and preserving cultural space with an emphasis on racial equity and equitable access for all ages and abilities.** This effort should be informed by an equity assessment of existing funding programs and incentives for development and preservation of cultural facilities. New incentive programs and grant programs should align with historic preservation tax credits as well as energy efficiency and ADA accessibility incentive programs to allow for environmentally friendly accessible retrofits designed to accommodate cultural uses. Bring together historic preservation stakeholders with local cultural councils and regional entities that serve immigrant communities to identify opportunities and barriers to adaptive reuse of historic structures for arts and culture. Explore new models to support cultural space development and funding to foster equitable recovery, identifying the specific needs of space operators with focus on those that serve and are run by Black, Indigenous, and people of color (BIPOC) artists. Establish programs to provide technical assistance for cultural space operators to ensure that spaces can remain viable.

Best/emerging practice: Seattle's [Cultural Space Agency](#) works to preserve, create and activate cultural space in the City of Seattle. The agency works with artists and arts organizations to strengthen their role in charting the future of their creative spaces, and with developers and builders to incorporate arts and culture into new projects. It offers a variety of capacity-building programs, including a fund that supports cultural facilities projects for communities that have been excluded from owning, managing and leasing property, and the Build Art Space Equitably (BASE) certification program, a cohort training model for people of color that brings together individuals with varied expertise for shared learning around cultural community organizing and commercial property development.

Strategy 3

Cultivate a more welcoming, accessible, and inclusive public realm.

The COVID-19 pandemic revealed the importance of our shared spaces. As schools, community centers, places of worship, libraries, cafes, and concert halls shuttered, the gaps were filled by parks, playgrounds, streets, sidewalks, trails, and beaches. Over the last year, these spaces have provided vital opportunities for people to gather safely and seek respite from the pandemic's physical and psychological tolls. The pandemic also spurred the Commonwealth to expand investments in the public realm and relax permitting requirements for outdoor dining and other activities. This shift gave municipalities and residents the opportunity to reimagine their streets and shared spaces. Yet inequities persist in terms of who has access to the public realm. This is particularly true in working-class communities of color, where lack of trust on the part of local leaders and decision-makers – coupled with funding and language barriers – often impedes the right of residents to access, activate, and enjoy shared spaces. If the pandemic has demonstrated the critical need for a more equitable public realm, then an equitable recovery from COVID-19 requires purposeful investment in our social and cultural infrastructure, guided by knowledge of the barriers and challenges that currently limit people's access to and full enjoyment of these spaces. Shaping a public realm that supports the rights of all residents to be, thrive, express, and connect will be essential as we return to public life and public spaces together.

- ▶ **Action 3.1: Incentivize local partnerships that expand public participation in the making and sharing of history.** The importance of Massachusetts to the founding of the United States and its political traditions remains central to local and regional narratives of identity and heritage. Yet, too often, the stories that preserve this history obscure the experiences of Indigenous peoples, people of color, immigrants and others, and deny centuries of exclusion and persecution. These gaps in our understanding of history hinder our ability to build communities and institutions that are inclusive and welcoming to the richly diverse populations that live, work, and play

in our state. Partnerships that bridge the gap between the arts, heritage, and community development sectors can play a key role in shifting these foundational narratives and cultivating community capacity to envision and realize just futures and thriving communities. MCC and MOTT could work with the MHC to encourage local and regional partnerships that contribute to a more complete story of our shared past through the arts and humanities. Such partnerships could include collaborations among local cultural councils, regional tourism boards, community-based organizations, libraries, archives, museums, historical commissions, and historical societies; artist residencies in libraries and archives, as well as efforts to reinterpret and reimagine commemorative landscapes and historic sites through the arts and humanities.

Best/emerging practice: The New England Foundation for the Art’s [Collective Imagination for Spatial Justice](#) and [Public Art for Spatial Justice](#) grants programs support teams of artists, creatives, culture bearers, cultural organizers, and/or community-based collaborators to do the important work of imagining and creating public art that fosters and contributes to more just futures for our public spaces and public culture. Program guidance encourages projects that dismantle legacies of racism and white supremacy culture – for example, by disrupting harmful historic narratives that perpetuate injustice.

- ▶ **Action 3.2: Fund the development and implementation of a cultural equity approach to guide improvements to statewide, regional, and local cultural and heritage tourism programs.** This approach should prioritize communities that have historically not received the economic benefits of cultural and heritage tourism, particularly working-class communities of color, and expand access to tools and resources to support historic and cultural preservation efforts led by these communities. Specific supports could include funding through MOTT to support communities and neighborhoods in documenting, sharing, and promoting historic and cultural assets; technical and financial assistance to support the creation of cultural and historic districts; incentives for collaboration that advance broader economic and community development goals (for example, among community development corporations, Main Street programs and historic preservation stakeholders); and expanded state historic preservation funding for arts-led adaptive reuse and economic development efforts.
- ▶ **Action 3.3: Convene a statewide working group to develop and issue guidelines for inclusive design, management, and programming of the public realm.** This working group should comprise the Cultural Equity Task Force, the Massachusetts Office on Disability, the Massachusetts Commission on Indian Affairs, and other relevant state agencies (e.g., the Department of Conservation and Recreation, the Department of Housing & Community Development, the Massachusetts Bay Transportation Authority, and the Massachusetts Department of Transportation). It should evaluate

existing guidance and practices that govern access to and activations of public spaces across the Commonwealth and explore options to eliminate barriers to access and clarify and streamline permitting requirements. Recommendations should be developed with an eye toward universal design, ADA accessibility, and racial justice and address opportunities to:

- Establish a right to nature and the public realm (for example, through an act modeled on Chapter 91 of the Massachusetts General Laws);
- Incentivize and fund municipalities to streamline permitting processes and ease language barriers, administrative burdens, fees, and rules associated with a wide range of cultural activities, including temporary art installations, festivals, parades, busking, vending, and block parties;
- Establish multi-municipality agreements for permitting processes and insurance requirements; and
- Review design and signage guidelines and implement changes to make these spaces more inviting and accessible for people of all ages, backgrounds, and abilities and incorporate community safety approaches that do not rely on policing and surveillance.



Recommendation: Accelerate the transition to a clean energy future

Strategy 1

Increase renewable energy generation for the Commonwealth and access for all residents.

Massachusetts has made strong progress in reducing greenhouse gas (GHG) emissions since 1990. The Commonwealth's GHG inventory shows an emissions drop of over 20 percent from 1990 levels based on the data most recently available (1990-2017).¹ The majority of these emissions reductions have come in the electricity sector, underscoring the importance of renewable energy generation in meeting the Commonwealth's climate goals. Despite this progress, the Commonwealth will need to do more to expand renewable energy generation and reduce emissions further, which will be critically important for meeting the Commonwealth's climate obligations under the Global Warming Solutions Act and the Next-Generation Roadmap Act and its goal of having net-zero emissions by 2050. This strategy will require acceleration of renewable energy generation in Massachusetts and the New England region, inclusion of municipal light plants (MLPs) more fully in these efforts, and advancement of social equity priorities to ensure a just transition for all Massachusetts residents to a clean energy future.

► **Action 1.1: Mandate a more sustained acceleration of the Renewable Portfolio Standard (RPS) to increase by 3 percent annually through 2050.**

The Commonwealth's current RPS policy will reach 35 percent Class I renewable energy by 2030. However, the Acadia Center's 2030 EnergyVision study anticipates that New England will need at least 42 percent of the region's electricity generation to be Class I renewable energy by 2030.² The Intergovernmental Panel on Climate Change (IPCC) similarly stated that the next 12 years are crucial to keeping global warming to 1.5 degrees Celsius, and that global GHG emissions need to be on track to fall 45 percent by 2030.³ Therefore, the Legislature should mandate a more aggressive acceleration of the RPS to increase by 3% annually to reach at least 45 percent renewable energy generation by 2030, and require participation by MLPs in both the state's RPS and Renewable Energy Trust Fund. The Commonwealth's 41 MLPs serve 52 Massachusetts municipalities and comprise 13 percent of the state's energy customers. While some MLPs have aggressively pursued climate and renewable energy goals, many others have not. As of 2019, no MLP offered renewable energy on par with the current RPS requirements.

1 <https://www.mass.gov/info-details/ghg-emissions-and-mitigation-policies#green-house-gas-emissions-trends>

2 <https://2030.acadiacenter.org/regions/new-england-region/>

3 <https://www.ipcc.ch/sr15/chapter/spm/>

This legislation should also include enactment of more aggressive offshore wind procurement goals, with a minimum goal of procuring six gigawatts by 2030. Massachusetts has vast offshore wind resources that offer some of the highest potential for steady, reliable renewable power in the U.S. The Legislature should consider a procurement structure that allows for a diverse range of off-takers to help drive increased demand, including municipal aggregation programs, institutional and large business purchasers, and other entities with robust renewable energy goals.

Best/emerging practice: Many other jurisdictions across the United States have adopted aggressive renewable portfolio standards. Both Hawaii and the District of Columbia (DC) have set 100 percent RPS targets. For D.C., the target year is 2032 and for Hawaii it is 2045. Other states have also adopted aggressive near-term RPS targets. New York and New Jersey both have targets of 50 percent by 2030, California's target is 60 percent by 2030, and Vermont's target is 75 percent by 2032.⁴ New York State has been driving its offshore wind industry forward with aggressive offshore wind procurement targets. The state has established a target of procuring nine gigawatts of offshore wind by 2035. In 2019, the state solicited 1,696 megawatts (MW) of offshore wind and it will seek to procure another 1,000 MW or more in 2020.⁵

► **Action 1.2: Advance an equitable clean energy future by establishing a Clean Energy Community Benefits Fund and a Commission on Energy Justice.**

The transition to a clean energy future must be just and ensure that low-income communities, communities of color, indigenous tribes and tribal nations, and other populations on the frontlines of experiencing climate impacts can fully participate and directly benefit. In a 2019 study, the Solar Foundation found that people of color comprised just over a quarter of the solar workforce and that leadership of solar companies is heavily comprised of white men.⁶ Research has also shown that racial disparities exist in the ownership of distributed energy resources, with studies finding that U.S. census tracts that are Black- and Hispanic-majority have significantly less rooftop PV installed than White-majority census tracts.⁷ Further, research has shown that people of color disproportionately experience higher energy cost burden in that a greater portion of their income goes to energy bills.⁸ To combat these inequities, the Legislature should establish a statewide Clean Energy Community Benefits Fund, which could be initially capitalized with American Rescue Plan Act (ARPA) funds and in the long-term funded by a real estate transfer tax or other mechanism. The program would create a standing fund and program for clean energy projects that benefit Environmental Justice communities, including funding renewable energy installations and energy efficiency projects, clean energy jobs training, and green infrastructure projects.

4 <https://www.ncsl.org/research/energy/renewable-portfolio-standards.aspx>

5 <https://www.nyserda.ny.gov/All-Programs/Programs/Offshore-Wind>

6 <https://www.thesolarfoundation.org/wp-content/uploads/2019/05/Solar-Industry-Diversity-Study-2019-2.pdf>

7 <https://www.nature.com/articles/s41893-018-0204-z>

8 <https://www.aceee.org/research-report/u2006>

This Legislature should also create a statewide Commission on Energy Justice that brings together representatives from Environmental Justice communities across the Commonwealth alongside key state agencies and scientific and public health experts to address clean energy equity. The Commission would be charged with overseeing the implementation of the Clean Energy Community Benefits Fund, as well as ensuring equitable program structures and benefit distribution for programs run by the Department of Energy Resources (DOER) and the Department of Public Utilities (DPU). The Commission would be mandated to work with DOER to ensure that any incentive programs are inclusive and equitable in their distribution of benefits. The Commission could also explore other ways to alleviate high energy cost burden for disproportionately impacted ratepayers. Furthermore, as the Commonwealth prepares to make workforce development investments to accelerate economic recovery, the Commission could have a role to play to ensure there are investments made to promote the equitable development of the clean energy workforce (see the **“Improve the accessibility and efficacy of the Commonwealth’s workforce development infrastructure”** recommendation). The Commission should have dedicated staff and financial resources to develop evidence-based policy guidance that respects and draws on the knowledge of the Commission’s community representatives. It would submit an annual report on its findings to the Legislature and the Administration and be granted appropriate oversight authority.

Best/emerging practice: The City of Portland, Oregon established a Clean Energy Community Benefits Fund that launched in the fall of 2020.⁹ The program is funded by a 1 percent surcharge on retail sales of certain large retailers in the city. The fund will support clean energy projects, clean energy jobs training, regenerative agriculture and green infrastructure projects, and other programs that reduce GHG emissions and offer economic, social, and environmental benefits.

- ▶ **Action 1.3: Remove solar net metering caps and ensure equitable rates and access for virtual net metering.** The Legislature should set a target for increasing solar net metering and virtual net metering each year, matched to an aggressive statewide solar goal. The current net metering cap is 7 percent of a utility’s peak load for private projects and 8 percent for public projects. This restriction has halted viable solar energy projects, including municipal projects, from proceeding in many areas of the Commonwealth that continue to hit their caps.¹⁰ The Legislature should remove the caps entirely or aggressively increase them to ensure that solar projects can move forward.

The Legislature should also revisit the compensation rate for solar net metering, currently set at 60 percent of the retail rate of electricity for projects over 60 kilowatts (kW). The current rate structure favors smaller rooftop solar projects and creates barriers to solar access for renters and

⁹ <https://www.portland.gov/bps/cleanenergy>.

¹⁰ <https://www.mass.gov/guides/net-metering-guide>

low-income households or households of color that are more likely to rent than own their homes and participate in community shared solar projects.¹¹ The Legislature should ensure that community solar projects can participate in virtual net metering and offer rates to low-income and non-profit customers that are equal to net metering rates for residential rooftop solar of 100 percent per kilowatt hour (kWh). Changes to net metering should also allow customers to receive virtual net metering credits on their electricity bills regardless of how far they live from a solar development in Massachusetts. This will facilitate greater access to solar energy for a broader range of customers.

The Solar Massachusetts Renewable Target (SMART) Program, which is operated in coordination with DOER and participating utilities, is a long-term sustainable solar incentive program in which customers are paid a fixed rate per kWh of solar production. SMART requires utilities own all their renewable energy credits (RECs), which prevents solar site owners from retiring or claiming those environmental attributes. The Commonwealth should consider enabling the retirement of some of the RECs to reduce emissions, generate greater demand, and give site owners, including municipalities, the incentive to build local solar to help them achieve their climate goals.

Best/emerging practice: The California's Single-Family Affordable Solar Homes (SASH) and Solar on Multifamily Affordable Housing (SOMAH) programs provide incentives for solar development on affordable single-family and multi-family housing in California.¹² The programs provide upfront installation incentives to building owners. At least 51 percent of the kWh generated must go to tenants, and bill credits are required to be applied by the utility via virtual net metering in accordance with the utility's metered rate schedule.¹³ The program requires that residents receive the full economic benefit of their billing credits.

Strategy 2

Spur equitable development of microgrids, energy storage, and demand response programs.

Significant increases to renewable energy generation must be paired with the deployment of energy storage and demand response technology to maximize efficiency and improve system resiliency. Massachusetts recently enacted the nation's first Clean Peak Standard, which requires that a percentage of energy resources deployed during peak hours of electricity demand be produced by clean resources.^{14,15} State legislators and regulators should monitor the effectiveness of the Clean Peak Standard to bring new energy capacity online and review the mix of technologies that are being used for compliance. Energy storage and alternative energy systems such as microgrids are necessary investments to support implementation of the Clean Peak Standard and the overall resilience of our

11 <https://malegislature.gov/Bills/191/S1931> and <https://energynews.us/2019/04/25/northeast/massachusetts-bill-would-re-store-net-metering-rate-for-community-solar/>

12 <https://www.lowincomesolar.org/best-practices/multi-family-california/>

13 <https://calsomah.org/somah-program-handbook>

14 Regulations released in March 2020, [Clean Peak Energy Standard](#)

15 [Massachusetts Set to Become First State to Implement a Clean Peak Standard](#)

energy supply. These technologies serve to increase overall resilience and energy security by producing and storing energy locally and provide reliable power to key infrastructure during outages or other emergencies.

Implementation will require increased education around these technologies and additional incentives for installation. Massachusetts must also prioritize ways to expand access to and benefits of these technologies to communities, residents, and businesses that face financial or other barriers. Funding opportunities should focus on low-income communities, where the financial and resiliency benefits to residents will have the greatest impact. Funding should also be prioritized for projects led by minority-owned clean energy companies. In addition to these new policy actions, the state should promote and provide support for expanding existing programs for demand response run by both MAPC and the state's investor-owned utilities, and continue exploring ways to better integrate and streamline programs and incentives in this space.

- ▶ **Action 2.1: Increase public and private sector funding for microgrids, district heating and cooling, and energy storage.** The Commonwealth should increase funding for microgrids, district heating and cooling, and energy storage to support both climate change mitigation and resilience and adaptation to extreme weather events and other emergencies. This should include exploration of opportunities to pair public investment with private sector resources through the creation of public private partnerships. Two existing programs, the Massachusetts Clean Energy Center (MassCEC) Microgrid program¹⁶ and the DOER Community Clean Energy Resiliency Initiative (CCERI)¹⁷, have contributed to the growth of this sector and they should be continued and expanded, with a focus on funding project implementation in Environmental Justice communities. Lessons learned during both programs should be considered by the Legislature and DPU, and regulations should be adjusted where appropriate to remove and decrease barriers to clean energy technology deployment. For both programs, it is important that implementation funds can be released upon successful completion of a feasibility study.¹⁸ Within the CCERI program, dedicating a portion of funds to public sector projects and allowing more flexibility in project funding could improve the utility of the program. The Commonwealth should also consider the role the Property Assessed Clean Energy (PACE) program could play to further advance these technologies.

Best/emerging practice: Best/emerging practices: Green Mountain Power (Vermont utility company) launched a “Grid Transformation Pilot” encouraging residents to install home battery systems, which could be partially controlled by grid operators to manage peak demand. The batteries have delivered significant savings on peak capacity charges and kept the lights for residents on during grid outages.

¹⁶ [Community Microgrids Program](#)

¹⁷ [CCERI Program Goals](#)

¹⁸ [Massachusetts Continues Feasibility Studies for 14 Potential Microgrids](#)

- ▶ **Action 2.2: Create a statewide community energy strategy.** The Administration should develop data-driven strategies to identify suitable and high priority locations for district energy, microgrids, and energy storage across the state. In 2016, the City of Boston published a Community Energy Study to examine the potential priority areas for local energy generation, district energy, and microgrids and assess feasibility and community benefits.¹⁹ The Administration should task the DOER and MassCEC with publishing a similarly comprehensive and cohesive statewide study by 2025 to provide a strategic roadmap for community energy that prioritizes assets and system benefits for Environmental Justice communities at the frontline of climate change impacts. The study should also identify recommended opportunities for energy storage and generation at all state-owned critical facilities and put in place a plan to make the necessary upgrades by 2030. Once published, the plan should guide the state’s own investments, as well as municipal, regional, and private-sector investment, through all relevant district energy, microgrid, and energy storage funding programs. See Action 4.2 in “**Ensure land preservation, conservation, and access to recreational spaces**” for more on sustainably integrating renewable energy generation on the Commonwealth’s open spaces and recreation areas.
- ▶ **Action 2.3: Eliminate barriers to rapid deployment of microgrids, energy storage, and other active demand management strategies.** In addition to the financial barriers addressed by Policy Action 2.1, the Commonwealth needs to tackle regulatory and statutory barriers that prevent or slow down at-scale deployment of microgrids, energy storage, and other active demand management strategies. The feasibility of non-utility owned multi-user microgrid deployment across the state is currently limited by the state’s treatment of an electric utility’s “franchise” rights to delivery electricity in its service territory. In Massachusetts, those interested in operating a microgrid must receive written consent from the distribution company prior to delivering electricity within the service territory (M.G.L. Chapter 164, Section 1B(a)). The Legislature should consider amending the parameters of the utility franchise clause to allow municipalities to be a grantor of a franchise or a lessor consent to enable microgrid operation on a case-by-case basis.

Best/emerging practice: The Boston Planning & Development Agency passed a 2018 policy requiring new developments to use a “Smart Utilities Checklist” which required feasibility studies for microgrids and district energy for developments over 1.5 million square feet.^{20, 21} Other examples to explore include the Long Island Community Microgrid Project, which aims to achieve nearly 50 percent of its grid-area electric power requirement from local solar, and the Montecito Community Grid Initiative, which serves as the first building block of the regional Goleta Load Pocket Community Microgrid, designed to deploy clean local energy and build regional resilience.^{22, 23}

19 Boston Community Energy Study, 2016

20 Boston Smart Utilities Project

21 [City of Boston Climate Action Plan 2019 Update](#)

22 <https://clean-coalition.org/community-microgrids/long-island-community-microgrid-project/>.

23 <https://clean-coalition.org/community-microgrids/montecito-community-microgrid-initiative/>.

Strategy 3

Reform the electric and gas utility markets to support the transition to distributed and renewable sources of energy.

In our transition to a clean energy future, the state’s gas and electric utilities face a new set of customer demands alongside their existing responsibilities to uphold safety, reliability, and affordability. The utility markets and regulatory structures that exist today need to be reformed to effectively meet new customer demands for grid resiliency, GHG emissions reductions, flexibility, and opportunities for innovation. This comprehensive reform must include investment in and planning for grid modernization, an overhaul of the utility business model (i.e., revenue regulation), and consistent, just, and smart rate design to support these new responsibilities and priorities. Achieving net zero by 2050 also means transitioning nearly entirely away from fossil fuels (*see policy actions supporting “Decarbonization”*). For natural gas utilities, the market trends indicate that natural gas power plants may become stranded assets by 2035 based on current clean energy power production cost projections.²⁴ By shifting to a renewable-centered approach to procurement and appropriately planning for the depreciation of natural gas assets, natural gas utilities can become “energy” utilities and avoid substantial increases to customer rates.

► **Action 3.1: Require comprehensive electric and gas utility reform by 2030.** The Legislature should require implementation of comprehensive electric and gas utility reform by 2030 and amend the DPU’s mandate (M.G.L. Chapter 25, Section 1) to prioritize reductions in GHG emissions and advancement of Environmental Justice.²⁵ The legislation should require the DPU to issue a rulemaking procedure for all investor-owned utilities and specify strategies and goals that will be addressed in the rulemaking. The rulemaking should include measures to:

- Adjust the state’s cost of service model to require multi-year rate plans, shared savings mechanisms, and performance incentive mechanisms;
- Address accounting barriers through adjustment of how capital and operational expenditures are treated, and allow for either securitization or accelerated depreciation of uneconomic assets;
- Scale up plans for “utility as a platform” and new value-added services;
- Establish a near-term timeframe for implementation of state grid modernization and deployment of advanced transmission and metering infrastructure, including a critical first step that requires time of use rates for all customers; and
- Ensure consumer protection of low-income ratepayers throughout the reform process and avoid disproportionate cost burden on low-income customers.

24 Charles Teplin, Mark Dyson, Alex Engel, and Grant Glazer. *The Growing Market for Clean Energy Portfolios: Economic Opportunities for a Shift from New Gas-Fired Generation to Clean Energy Across the United States Electricity Industry*. Rocky Mountain Institute, 2019, pg. 9, <https://rmi.org/cep-reports>.

25 As proposed in Senate Bill 2477, An Act Supporting Next Generation Climate Policy, <https://malegislature.gov/Bills/191/S2477>.

The legislation should also address how municipal electric and gas utilities will be held to similar requirements so that the necessary changes are made to support the transition to both distributed and centralized renewable sources of energy in these communities.

- ▶ **Action 3.2: Develop a statewide natural gas transition plan.** The DPU should adopt a schedule for phasing out new natural gas connections by 2025 and develop a statewide plan for fully transitioning away from natural gas by 2035. The plan should include a near-term order revising the utilities' Gas System Enhancement Plans to redirect gas main replacement funds to clean heating and cooling system deployment for districts, residents, and businesses. While intrastate and interstate natural gas pipelines are federally regulated, the state has authority over the natural gas distribution system and local gas hookups. At the national level, the United Kingdom and the Netherlands have both developed comprehensive strategies to decommission natural gas through a safe, environmentally sound, and cost-effective approach. The success of this plan is interdependent with the reforms proposed in Policy Action 3.1 that would enable gas utilities to generate revenue from alternative services and appropriately account for existing uneconomic natural gas assets.
- ▶ **Action 3.3: Restructure the wholesale electricity markets.** The increase in variable and renewable sources of generation required of a clean energy future bring along characteristics (minimal production costs, small and rapid deployment, and variable on-demand availability) that are contradictory to the structure of the current wholesale electricity market, which was designed to work with large and costly power generation plants. The Federal Energy Regulatory Commission (FERC) should issue regulatory changes to mitigate the barriers for zero emission resources and demand-side participation in the wholesale electricity markets to support decarbonization of the regional energy system. The wholesale market rules should be restructured to enable technology-neutral market competition. To supplement this effort, the Executive Office of Energy and Environmental Affairs should work with ISO-New England and the other 5 states it serves (Connecticut, Maine, New Hampshire, Rhode, Island, and Vermont) to commit to region-wide decarbonization planning, building upon the Massachusetts 2050 Decarbonization Roadmap.²⁶

²⁶ ISO-NE is a regional transmission organization, created by the FERC, that coordinates, controls, and monitors the electrical power system for the region.

Best/emerging practice: Green Mountain Power, an electric utility in Vermont, transitioned to become a certified B Corporation in 2014.²⁷ Establishing itself as a B Corporation demonstrates Green Mountain Power's commitment to achieving the highest standards for measurable social and environmental performance, as well as public transparency and legal accountability. In 2010, the U.K.'s Office of Gas and Electricity Markets (Ofgem) set out a new framework for performance-based regulation of its energy companies.²⁸ At the core of the new regulatory approach are four features: a multi-year rate plan, a total expenditure approach (combines capital and operational expenditures), performance incentives, and an innovation fund.

²⁷ <https://greenmountainpower.com/2014/12/01/proud-certified-b-corporation/>

²⁸ <https://info.aee.net/hubfs/RIIO%20Case%20Study%20Final%20.pdf>



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Recommendation: Prepare for and respond to the threats of climate change

Strategy 1

Direct resources and technical assistance to communities that have experienced historic disinvestment and commit to long-term climate and health planning.

The COVID-19 pandemic hit harder in communities of color and low-income neighborhoods, and numerous studies over the years have documented that these neighborhoods and populations also bear a disproportionate share of environmental harms such as flooding, air pollution, and exposure to toxic facilities. Similarly, negative impacts of climate change will not be borne equally across the region. The lasting effects of deliberate discrimination and disinvestment are illustrated by a recent study of over 100 communities, which found that neighborhoods historically subject to red-lining are, on average, five degrees hotter in the summer.¹ The red-lined neighborhoods have fewer trees and parks, and more paving and industrial facilities. Climate change also exacerbates public health disparities in these communities, with extreme heat and the poor air quality and humidity that often accompanies it triggering asthma. Warmer temperatures will have disproportionate impact on Black people and Latinos who are already hospitalized for asthma at higher rates than Asians and Whites. Resources must be directed to improving public health outcomes and increasing assets available to communities that have been subject to institutionalized discrimination and disinvestment.

► **Action 1.1: Assure that state resources are directed where the need is the greatest by providing dedicated funding and priority in state climate grants, loans, and investments for Environmental Justice communities.**

Environmental Justice communities should be identified for dedicated funding and priority in state climate grants, loans, and investments. To do so, Massachusetts should develop new metrics that more fully account for environmental burdens. California's Enviro Screen tool provides a model that considers pollution exposure, sensitive populations, and socioeconomic factors.² Currently, Massachusetts considers only race, income, and English language isolation to identify Environmental Justice communities, although the recently passed Next Generation Roadmap legislation offers more nuance in that definition. Additional Enviro Screen measures include exposure to air and water pollution and toxic facilities; prevalence of

1 New York Times. How Decades of Racist Policies Left Neighborhoods Sweltering. (August 24, 2020). <https://www.nytimes.com/interactive/2020/08/24/climate/racism-redlining-cities-global-warming.html>.

2 <https://oehha.ca.gov/media/downloads/calenviroscreen/factsheet/ces30factsheetfinal.pdf>.

asthma and cardiovascular disease; unemployment; housing cost burden; and educational attainment. Cap-and trade proceeds are invested in communities with the highest scores. The Commonwealth should similarly identify a dedicated funding stream for investment in communities with the highest demonstrated need using these more comprehensive metrics. Any applications for funding should be straightforward and require readily available data so that communities with fewer resources do not experience the application process as a barrier. Additional support should be provided to community-based organizations and community action agencies to increase local capacity, expertise, and access to resources.

- ▶ **Action 1.2: Establish a statewide mandate to integrate climate and public health planning and provide support to municipalities and regions.** The nexus between public health and climate change is critical for supporting resilient communities in the face of climate disasters. The Commonwealth should institute a mandate to address climate through the lens of public health and social resilience, in addition to infrastructure development. This mandate should include funding and technical assistance for municipalities and regions to carry out the work locally. Strengthening this nexus should influence decision making; program design, development, and implementation; and funding and investments. This includes increasing staff capacity at the local level and connecting with and providing support to home healthcare workers, emergency care providers and other front-line workers. Public health experts should be integrated into climate related taskforces at the local, regional, and state levels. The Commonwealth should issue guidance and assistance to integrate social determinants of health into climate planning and program implementation, including factors such as economic stability, housing access, and education access.

Best/emerging practice: There are several examples of climate planning processes that have focused on climate justice along with equity and public health. The City of Providence, Rhode Island created a Climate Justice Plan, which was co-designed by the Racial and Environmental Justice Committee (REJC).³ The REJC led engagement for the plan and worked to ensure that recommendations prioritized reducing emissions in communities most impacted by climate change, and that the solution pursued would not lead to resident displacement. At the regional level, Seattle and King County, Washington released a Blueprint for Addressing Climate Change and Health.⁴ The plan focuses on how climate changes impact residents experiencing health inequities because of structural racism and identifies how to tackle both the impacts of climate change and the upstream factors that lead to health disparities to achieve a more resilient region.

³ <https://www.providenceri.gov/wp-content/uploads/2019/10/Climate-Justice-Plan-Report-FINAL-English-1.pdf>

⁴ <https://kingcounty.gov/~media/depts/health/environmental-health/documents/publications/blueprint-climate-change-and-health.ashx?la=en>

- ▶ **Action 1.3: Establish a statewide program to make municipal buildings more resilient and create Resilient Hubs.** Municipalities can lead by example in ensuring that municipal buildings are adapted and made resilient to climate impacts such as flooding, power outages, extreme temperatures, and more. Municipal buildings - in particular, schools, libraries, senior centers, community centers, and other designated emergency shelters - provide a valuable opportunity to not only provide an area for emergency sheltering during a crisis, but also a place for programming that increases social cohesion and emergency preparedness ahead of a disaster. There should be dedicated funding to do full-building retrofit and retro-commissioning of these buildings to improve energy efficiency and indoor air quality, reduce exposure to heat, incorporate green infrastructure, move mechanical equipment out of basements, and add solar storage and other resilience technologies. Additional funding for staff capacity and operational management and training, as well as toolkits for local programming should be allocated to help leverage existing networks prepare and recover more quickly after emergencies. Resilience Hubs that include solar-plus-storage and are co-located with municipal buildings could be used to develop microgrids that can “island” during grid outages. This program should prioritize communities most in need, as outlined in Action 1.1 above, and provide staff training and capacity to carry out the work. For more details on accelerating deep energy retrofits for buildings, see Action 1.1 in “**Accelerate retrofits of existing buildings to achieve deep energy efficiency and eliminate fossil fuels.**”

Strategy 2

Prepare buildings, infrastructure, and the natural environment to withstand and be resilient to the impacts of climate change.

Supporting resilience in the built and natural environment will require several critical steps, including: 1) adapting existing buildings and infrastructure to withstand and recover from the impacts of climate change, 2) developing new buildings and infrastructure in ways that incorporate resilience standards and adaptive principles, and 3) developing additional infrastructure, including natural infrastructure, specifically to protect and adapt communities from climate hazards. Infrastructure includes the primary life-line sectors of transportation, telecommunications, energy, water, healthcare, and food systems, as well as “green” infrastructure and natural systems that provide critical ecosystem services such as flood storage and cooling. These large-scale investments will require significant increases in funding and financing. Some estimate that the need is at least \$100 million annually (a ten-fold increase over current state funding of around \$10 million annually through the Municipal Vulnerability Preparedness (MVP) program). A robust strategy that includes local, state and federal dollars must be developed and implemented in the near-term.

► **Action 2.1: Establish a Climate Funding and Financing Commission to develop a broad, long-term strategy to fund climate projects and programs.** In 2020, the MVP program funded \$11.1 in Planning and Action Grants, out of \$46 million in funding requests. This is one example of where the need for climate-related funding far outweighs the availability of funds from either local capital budgets or the state, against the backdrop of an uncertain federal funding landscape. While funding for the MVP program should be increased, the Commonwealth also needs a longer-term climate funding and financing strategy. The Executive Office of Energy and Environmental Affairs should create a Climate Funding and Financing Commission to develop strategies that leverage traditional funding structures and innovative climate financing that increases the amount of dedicated capital for climate projects, while ensuring that resources are allocated to those with the greatest need (see Action 1.1). The Commission should include experts, stakeholders, and decision makers from infrastructure finance, municipal finance, academia, impact investing (investments designed to yield a social/environmental benefits as well as financial return), and traditional investment banking. The Commission should focus on both a statewide strategy that includes advocating for federal funds and developing financing tools for local governments. Innovative funding and financing strategies may include developing a Massachusetts Climate Infrastructure Bank, passing enabling legislation to expand the use of Public-Private Partnerships (P3s) to include climate projects, and advancing various types of debt financing (such as Green Bonds and Environmental Impact Bonds). While federal recovery funds could provide initial capital for an infrastructure bank, the Commission should also consider adoption of mechanisms such as a carbon tax as a longer term funding option. The Commission should be empowered to set up and deploy these financing structures and mechanisms. Relatedly, the Commission may also be part of a parallel effort to help establish a cohesive state or multi-state carbon offset program that maximizes natural lands, forests, soils, wetlands, and green infrastructure as carbon sinks, while balancing/co-optimizing that sequestration with other policy needs (such as sites for solar and wind, recreational areas, mass timber, agriculture, and more). For more details on a Climate Infrastructure Bank, see Action 2.2 in the recommendation, “**Ensure sufficiency and resiliency of revenue for meeting local and regional needs.**”

Municipal financing strategies may include establishing additional district-level fees (such as a Resilience District), Stormwater Utilities, or innovative municipal bonds. Special consideration should be given to municipalities that lack the capacity or credit to take advantage of traditional financing methods. Strategy and tools should also include support for private property owners to make improvements to protect their property, as well as support for small businesses as valuable members of the community. Municipal finance is likely to be disproportionately impacted by climate change and loss of tax revenues for communities that are hardest hit by climate hazards. Thus, providing local and regional tools will be critical to closing the funding gap.

- ▶ **Action 2.2: Incorporate projections for sea level rise, increased precipitation, and increased heat in all state permits and construction.** All state permitting should be updated to require that standards reflect projected climate conditions for the life of the project. In addition to protecting public safety, higher standards can provide cost savings, including substantially reduced flood insurance premiums and lower heating and cooling costs. As a priority, building code standards must be revised to ensure infrastructure will be functional and able to protect health and safety for the duration of anticipated use. Locations projected to be in future flood zones should be subject to flood zone standards. Building elevation requirements should reflect future sea level rise. Energy efficiency standards should assure that homes are designed to address projections for extreme heat and cold and can withstand power outages. See Strategy 2 in “**Accelerate retrofits of existing buildings to achieve deep energy efficiency and eliminate fossil fuels**” for more details on how to promote building energy efficiency and energy resiliency.

The Legislature should require that all state-funded infrastructure utilize a life-cycle cost analysis that accounts for climate related costs associated with sea level rise, precipitation, heat projections, natural resource impacts, and future relocation or retrofit requirements, and that prioritizes climate-related benefits. The Commonwealth should similarly provide guidance for municipalities to do the same with locally owned infrastructure.

- ▶ **Action 2.3: Incentivize and require local policy changes through state’s MVP Program.** The MVP program has been widely successful in encouraging municipalities to complete municipal level planning for climate impacts, as well as funding millions of dollars of Action Grants to implement priority projects. Since 2017, the program has allocated \$44 million in both Planning and Action Grants. This program could be even more impactful by requiring and incentivizing local policy changes as part of grant funding eligibility requirements. The state’s Green Communities program, which requires five municipal actions, including adoption of local policies and the state’s Stretch Energy Code, provides a precedent for this type of program. An updated version of MVP could be used to incentivize municipalities to adopt climate resilient zoning ordinances and policies, such as flood resilient zoning, cool roof requirements, and green factors codes that encourage green infrastructure for residential and commercial properties. Policies should encourage and require the use of nature-based solutions where appropriate, including additional on-site water infiltration requirements, shading and shade trees, and protection of natural resources and land conservation. The program could provide technical assistance and template policies to help municipalities to take actions that make them eligible for additional funding and technical assistance support.

Strategy 3

Move out of harm's way.

Over the next thirty years, sea level is projected to rise as much as 1.4 to 2.4 feet⁵ and coastal storms will become more frequent and severe. Communities will experience more chronic flooding as daily tides encroach and groundwater levels rise. Inland locations will also be affected due to the projected increase in extreme rain events. Increasingly residents will be priced out of their homes as flood insurance premiums rise and damage to property increases. As conditions worsen, pressure to relocate people and infrastructure will mount. Properties at risk will experience decreasing value, while the need to relocate will put pressure on housing availability and affordability elsewhere. Low-income residents will be particularly vulnerable to the impacts of disruption and dislocation. Critical natural resources including salt marshes, tidal flats, and beaches are at risk of being submerged where coastal development blocks pathways for upland migration as sea level rises. Now is the time to develop the regulatory tools and programs to address those locations where future relocation will be unavoidable. These actions will promote equitable transitions that protect people, natural resources, and communities.

- ▶ **Action 3.1: Implement a state-funded program to facilitate managed retreat, including purchase of flood prone properties from willing sellers.** The Commonwealth should develop a buyout program to facilitate retreat from unsafe locations and preservation of natural resources. Buyouts under Federal Emergency Management Agency (FEMA) programs average five years to complete, while flood insurance repair payments are available within months. This encourages reinvestment in vulnerable locations. A state program should incorporate pre-approval, leaseback, and life estate options that allow residents to stay in their homes until a triggering event occurs (storm damage, erosion, end of life). Specific supports for low-income residents should include relocation assistance for renters and homeowners, connections to opportunities for rental assistance, and loan forgiveness for underwater mortgages. This should also include technical assistance for community buy-out programs and relocating multiple residents. In addition to financial assistance, the program should include experts in relocation, including social workers to address the mental health and community impacts of relocation and post-disaster support. As a starting place, the Legislature should pass An Act establishing a Massachusetts flood risk protection program ([S.603/H.983](#), filed by Senator Marc Pacheco and Representative Sarah Peake), which begins to address several of these concerns.

The Commonwealth should prioritize lands that can facilitate migration of critical natural resources and preservation of contiguous properties to improve public access to the shoreline and create new community amenities. The buyout program should be coordinated with state land protection grant programs to maximize natural resource protection and creation of public spaces. Funding of properties that will allow migration

⁵ <https://resilientma.org/>.

of critical natural resources should take priority, and the Commonwealth should encourage the use of the Community Preservation Act (CPA) and other land protection funds for natural resource migration. For more information on specific land conservation tools and funding mechanisms, see the recommendation, “**Ensure land preservation, conservation, and access to recreational spaces.**”

Best/emerging practice: Created following Superstorm Sandy and working with its Green Acres program that protects open land, New Jersey created the Blue Acres program that buys out properties from willing sellers, preserves the land and makes it available to the public for conservation and recreation.⁶ Owners of homes damaged in Superstorm Sandy can sell their homes at pre-storm value through this program, which includes case managers to assist property owners, provide relocation assistance for renters, and help with loan forgiveness for underwater mortgages. The program focuses on contiguous properties to create community benefits.

► **Action 3.2: Encourage and incentivize adoption of local zoning that restricts development in high-risk locations.** A handful of Massachusetts’s communities have adopted prohibitions on development in coastal and inland flood prone locations. While often controversial, this is an important tool to prevent development in locations that will be a threat to future residents, first responders, and communities. The Commonwealth should marshal its resources to support efforts by communities to limit their exposure to future threats. Strategies should include developing model bylaws, providing technical assistance, and providing both grant support and grant incentives to adopt protective zoning, as well as dropping the voting approval threshold for zoning changes to a majority vote of the Select Board or City Council.

Furthermore, the Commonwealth should establish a commission to develop strategies to facilitate relocation and lessen negative impacts on sending and receiving communities. The commission should consider how the Commonwealth can still meet its housing production goals and affordable housing needs in light of potential development restrictions in high-risk areas, and more broadly consider strategies for maintaining community cohesion. Zoning strategies might include incentives along the lines of Chapter 40B, as well as Transfer of Development Rights.

⁶ https://www.nj.gov/dep/greenacres/blue_flood_ac.html.

- **Action 3.3: Advocate for reform of FEMA programs to protect low-income residents and improve the accuracy and transparency of flood data.** FEMA houses critical programs that provide flood insurance, mitigation funding, and floodplain mapping. Low-income residents are increasingly at risk of losing homes due to rising flood insurance premiums and repeated storm damage. Funding for FEMA programs that support safety retrofits is inadequate to meet the need and program requirements are prohibitive for those without substantial financial reserves. Reforms are urgently needed to increase access and resources for property retrofits and relocation, and to cushion the impact of rising flood insurance premiums on low-income residents.

Access to accurate flood data is key to protecting residents and preventing continued investment in flood prone locations. Current FEMA Flood Insurance Rate Maps do not incorporate future climate projections. Moreover, federal privacy regulations prevent individuals and communities from accessing flood claims data critical to understanding flood risk. Federal and state regulations require reform to reduce flood risk and support community planning. Two critical areas to address include:

- **Direct mitigation funding and flood insurance relief to low-and-moderate income residents.** The National Flood Insurance Program currently provides substantial discounts to properties built before FEMA flood maps were adopted. This obscures actual flood risk and contributes to the program's multi-billion dollar debt. Actuarial rates are necessary to assure that premiums reflect actual risk. However, for low-income residents and communities, adjustment to actuarial rates will likely trigger displacement and a foreclosure crisis. Congress should target mitigation programs to low-income residents and, in the near-term, provide direct support to maintain insurance affordability. Insurance affordability options should include means-tested discounts, revolving loans, and allowing policyholders to pay flood insurance premiums in monthly installments.

Targeted reforms to FEMA flood mitigation programs can reduce damage and flood insurance premiums. Funding should be prioritized for communities most in need of financial support. A mechanism, such as the Centers for Disease Control Social Vulnerability Index, should be utilized to prioritize funding. Current FEMA mitigation grant programs feature after-the-fact reimbursements, precluding participation for many low-income residents. FEMA should provide interest-free loans as a bridge to mitigation reimbursement. The state could also fill this gap with a revolving loan fund. Damage to building utilities is costly and often substantially extends displacement after a flood. FEMA should expand utility elevation mitigation grants and recognize the value of elevating utilities by significantly discounting flood insurance premiums.

- **Improve accuracy and transparency of flood data.** Flood risk information is critical to steering investments to safe locations. Update FEMA Flood Rate Insurance Maps to reflect projected sea level rise, precipitation, and storm frequency. Disclosure of flood history to prospective homebuyers before purchase and making all insurance and disaster claim information publicly accessible should be required. Access to claims data will allow individuals and communities to make investments with full knowledge of flood risk and assist communities in making the case for federal flood mitigation support.

Best/emerging practice: Harris County Thrives is a comprehensive resiliency strategy for the greater Houston area.⁷ County voters passed a \$2.5 billion bond bill to fund 500 flood protection projects. Instead of using strict a cost/benefit analysis, which favors high value properties, they incorporated the CDC Social Vulnerability Index to prioritize communities that would have the most difficulty recovering from flooding. The Louisiana Strategic Adaptation for Future Environments (SAFE) plan is another holistic community resiliency plan.⁸ The year-long planning process to determine which projects should be funded incorporated deep community engagement, hosting 71 meetings with 3,000 participants. Funded projects were diverse in their focus and included relocation and improvements to receiving areas. Some of the categories of funded projects include resilient housing, resilient transportation, resilient energy, resilient infrastructure, economic development, community nonstructural mitigation/flood risk reduction, planning, and public services/education.

⁷ <https://www.harristhrives.org/>.

⁸ <https://lasafe.la.gov/>.



Recommendation: Decarbonize the building and transportation sectors

Strategy 1

Accelerate retrofits of existing buildings to achieve deep energy efficiency and eliminate fossil fuels.

The Commonwealth has over 2.5 million buildings, which are responsible for the largest portion of greenhouse gas (GHG) emissions of any sector when accounting for both thermal energy (heating and cooling) and electricity. For many municipalities in the region, the buildings sector – whether primarily residential or commercial – likewise comprises the greatest level of emissions, above 80 percent for some urban municipalities.

While existing buildings represent a tangible opportunity to tackle the climate crisis, they have also proven very challenging to decarbonize. Many building envelopes, enclosures, mechanicals, lighting, and other components were designed and implemented much less efficiently and cleanly than they could have been, and buildings are typically reliant on fossil fuels. Not only is renovating or replacing these components often very costly and time-consuming, but it could also displace or disrupt existing occupants. However, policy actions that prioritize retrofitting existing buildings to greatly enhance energy efficiency and replace fossil fuels with renewable energy will serve to significantly reduce the carbon footprint of our building stock. There is also the opportunity to align deep energy retrofits with ventilation and other air filtration upgrades needed to achieve healthy homes, an area of increased concern in light of the COVID-19 pandemic (see Action 2.2 in **“Ensure that people of all races and income levels have equal access to affordable housing through homeownership and rental opportunities”**). Further, pursuing complementary nature-based solutions, such as green roofs and tree planting, can maximize carbon capture opportunities and decrease heating and cooling loads, further reducing the carbon intensity of our buildings (see **“Ensure land preservation, conservation, and access to recreational spaces”**). High performance buildings free from fossil fuels also generate myriad public health, safety, wellness, and resilience benefits and result in operational cost savings.

- ▶ **Action 1.1: Increase funding for deep energy efficiency retrofits and building electrification.** We estimate that two million buildings statewide will need to undertake deep energy retrofits and electrification to meet the Commonwealth’s net zero climate goals. Just as the sheer scale of this proposition is expensive, so too is the ad hoc way deep energy efficiency retrofits and building electrification are currently undertaken. No comprehensive programs currently exist to fund or finance deep energy retrofits, which could include weatherization; window, roof, or siding upgrades; major equipment replacement; and electrification.¹ Likewise, insufficient funding programs are available to address the pre-weatherization barriers, such as knob and tube wiring, vermiculite, and other health and safety issues, often needed in very old housing before energy efficiency improvements can be made.

A portfolio of funding and financing mechanisms is needed, ranging from more flexible and lower interest loans and green leasing programs and optimization of performance contracting such as Energy Services Companies (ESCO) or other third-party financing, to the acceleration of the Commercial Property Assessed Clean Energy (CPACE) financing mechanism and expansion to the residential sector. Since the scale of the need is so great - and as cost savings would result from economies of scale, statewide requirements, and standardized services, the Legislature should require the development of a statewide program that funds the systematic overhaul of existing buildings. This program could be based on the 2019-2020 MassCEC Whole-Home Air-Source Heat Pump Pilot program, and expanded to integrate with the Mass Save Whole Buildings program. It should allocate at least \$100 million over ten years initially, and be phased in to reach all building types over the next decade. The program should fully fund upgrades for naturally occurring affordable housing, multifamily housing, and homes located within Environmental Justice block groups, and require that a minimum of 25 percent of all retrofits completed meet these criteria. The Commonwealth should also explore possible opportunities to align deep energy retrofits with other efforts that promote healthy homes, including resources to de-lead homes, in order to maximize public health benefits (see Action 2.2 in the “**Ensure that people of all races and income levels have equal access to affordable housing through homeownership and rental opportunities**” recommendation).

- ▶ **Action 1.2: Set mandatory emissions reduction limits at the individual building level.** The Commonwealth should establish GHG emissions caps per square footage of individual buildings based on different building types, from single-family homes to large commercial buildings and laboratories. Building performance standards set a high-level threshold for a building’s performance, while not prescribing exactly how each building must meet the emissions reductions standard. By focusing the standard on climate mitigation, rather than energy consumption, a GHG emissions cap can more likely avoid conflict with the State Building Code. It can also empower building managers to think about their building systems holistically, accounting not just for emissions from energy systems, but also from

¹ Electrification primarily comprises the transition of fossil-based heating systems, such as gas furnaces and oil boilers, to highly-efficient electric heating, such as cold-climate air-source heat pumps, which can also provide cooling.

industrial processes, if applicable, and potential carbon sinks from green infrastructure and materials with high albedo. This new policy lever could be deployed at the local level, as it is in the Clean Energy DC Omnibus Act (focused on energy efficiency ratings) or in New York City’s Local Law 97 (focused on GHG intensity). Alternatively, it could be deployed statewide similar to the Washington State Clean Buildings Act, which has the added benefit of widespread consistency and scale.

By passing legislation that mandates the establishment of a statewide building performance standard based on specific carbon budgets per square footage for various applications, including building type and potentially location and equity indicators, Massachusetts can set the bounds by which building owners plan renovations and upgrades. The caps should ratchet down over time and include a non-compliance mechanism similar to the Alternative Compliance Payments (ACP) currently made by electricity suppliers that fail to comply with the Massachusetts Renewable Portfolio Standard requirements. Another non-compliance option could be a carbon trading mechanism to help finance low-carbon retrofits undertaken by low- and moderate-income building owners or those serving low- and moderate-income tenants. Any statewide standard should include protections against displacement, particularly focused on naturally occurring affordable housing, and align with additional funding sources such as those proposed in Policy Action 1.1. See “**Expand protections against displacement for low-income communities, communities of color, and renters**” for more details on specific anti-displacement measures that can be pursued.

- ▶ **Action 1.3: Adopt a minimum threshold for the percentage of heating and cooling statewide that will come from renewable energy or clean electric sources.** Regulations to include renewable thermal in the Massachusetts Alternative Energy Portfolio Standard (APS) were completed in 2017, whereby electricity suppliers can meet part of their compliance requirement through the deployment of solar thermal, air-source heat pumps, and ground-source heat pumps. Currently, however, the percentage requirement for Alternative Energy Certificates (AECs) only increases 0.25 percent annually and renewable thermal technologies are only one means to comply; others are technologies such as combined heat and power and efficient steam. To transition away from fossil fuels for heating and cooling, a minimum threshold for solar and heat-pump technologies should be required. Legislation signed into law in Maine in 2019 calls for 100,000 heat pump installations by 2025. Massachusetts should be similarly bold. Regulations should prescribe a minimum mandatory limit of at least 30 percent by 2030 (as deemed feasible in 2014 by the Department of Energy Resources’ (DOER) Commonwealth Accelerated Renewable Thermal Strategy (CARTS) report), increasing to 100 percent, or as high as possible, by 2050.²
- ▶ **Action 1.4: Require building energy use disclosure and reporting, with enforcement and building improvement obligations.** A near-term action to help decarbonize existing building stock is a statewide public disclosure requirement for buildings to report on their energy use annually to local and state officials. Benchmarking efforts are already in effect in Boston,

² Navigant Consulting, “Commonwealth Accelerated Renewable Thermal Strategy,” January 2014, <https://www.mass.gov/doc/renewable-heating-cooling-market-strategy-report/download>.

Cambridge, and other jurisdictions around the country. This requirement would increase transparency and awareness of building energy consumption and provide necessary data to inform related policies, such as a building emissions performance standard and climate action plans. To enable the policy to reduce GHG emissions, the Legislature should pass a statewide building energy use disclosure and reporting law in which compliance with reporting must be actively enforced, as should related requirements to decrease building energy use during each compliance period. While building type or size can be phased in over time, targeted energy reductions in buildings that are in Environmental Justice communities should be prioritized at the start. In conjunction, the Legislature should require that utilities provide building owners with data in an accessible format to aid in the benchmarking process, and include provisions, such as through a rental licensing requirement, to protect low- to moderate-income renters from displacement or from bearing the cost of resultant upgrades. See “[Expand protections against displacement for low-income communities, communities of color, and renters](#)” for more details on these protections.

Strategy 2

Ensure that new buildings and major renovations are constructed to meet ultra-low energy, high-performance standards and support greater adoption of distributed renewable energy resources and energy resiliency.

When it comes to building decarbonization, new buildings allow developers to start from scratch and deploy the energy-saving, low-carbon, high-performance technologies, materials, equipment, and systems from the design phase. The policy landscape currently in place, however, does not prioritize comprehensive and strategic planning, design, engineering, construction, operation, and financing of net-zero compliant buildings. Both public and private institutions have made some progress in encouraging this development, including via market-based certification standards such as Passive House and funding from utilities, MassCEC, the Department of Housing and Community Development, and other bodies to support pilots, charrettes, low-income housing tax credit points, and trainings. Yet, most buildings are still constructed or renovated using standard practices that do little more than meet the State Building Code or respond to perceived market demand.

To achieve the climate goals of our region and beyond, baseline requirements and incentives for better buildings will need to be enhanced significantly. The Next Generation Roadmap bill passed and signed into law in March 2021 makes notable improvements in this area by authorizing DOER to establish by November 2022 a municipal opt-in high performance stretch code that includes a net zero building performance standard, but there is still more work to be done. By raising the floor for climate-smart development, we can succeed in transforming market demand and bolstering the related supply chain. We can also generate benefits not only to reduce GHG emissions, but also to make buildings more resilient to storms, extreme temperatures, and grid outages; more conducive to sheltering in place;

inclusive of strong daylighting features proven to benefit students' learning and public health at large; and better ventilated, more comfortable, and less expensive to operate due to down-sized equipment and reduced energy costs. By 2028, the policies should be applied across all building types so that only 2050-compliant buildings are constructed in Massachusetts.

► **Action 2.1: Integrate a robust net zero building energy code into the statewide stretch code by 2025 and the base building energy code by 2028.**

The State Building Energy Code is a uniform code across the Commonwealth with which all cities and towns must abide. Unlike in some other states, municipalities cannot adopt an alternate building code, except for the Stretch Energy Code, an above-code appendix to the building code first adopted in 2009. Cities and towns can opt in (and rescind adoption) via their local legislative body. One of five criteria required to become designated as a Green Community, the Stretch Energy Code has been adopted by over 80 percent of the 351 Massachusetts cities and towns as of May 2021. The Stretch Code appendix was originally 20 percent more efficient than the base energy code. With only two updates in over ten years, however, and with those changes affecting fewer and fewer buildings, the current stretch code is not a sufficiently strong tool to support the decarbonization needed for new construction and major renovations.

The DOER, in consultation with the Board of Building Regulations and Standards (BBRS), should adopt a regular stretch code pathway that expressly aims to attain net zero-ready building performance and a municipal opt-in specialized stretch code, now enabled by the 2021 Next Generation Roadmap Law, that requires most buildings to fully achieve net zero performance. To have a sizeable impact, this opt-in code must not only attain net zero through robust energy efficiency, particularly of envelope and enclosures, electrification, and non-combustible renewable energy, but it also must be adopted by most municipalities. To ensure that this impact is realized, all participating Stretch Code communities should be included by no later than 2025 and all Massachusetts cities and towns by 2028. This phased-in approach creates an on-ramp for building developers and inspectors to prepare to comply. The Commonwealth should also use this time to ensure that supplemental funding is provided to support state- and municipally-owned, deed-restricted, and naturally occurring affordable housing.

Moreover, a regular code update cycle should be established to guarantee timely improvements in the code. This cycle should have a duration of three years to coincide with the mandated adoption of the International Energy Conservation Code (IECC). The IECC is adopted as the Base Building Energy Code in the state, along with additional more stringent Massachusetts-specific amendments, within a year following the three-year cycle of updates to that national model code. Subsequent updates to the net zero code should be required on that same cycle. Additionally, the net zero code should include measures to minimize embodied carbon, potentially based

on standards from the International Green Construction Code (IGCC) or those under development in the City of Boston.

► **Action 2.2: Align Mass Save programs with the urgency of climate change.**

The 2008 Green Communities Act (GCA) created several important policy and programmatic mechanisms and bodies, such as the Green Communities Division at DOER and Energy Efficiency Advisory Council (EEAC), to accelerate energy efficiency. The law required that the electric and gas utilities consider efficiency their first fuel and that they coordinate around a new energy efficiency plan every three years. The Mass Save program also grew out of the GCA as the coordinated initiative of all investor-owned electric and natural gas utilities and the Cape Light Compact (known jointly as the “program administrators” or “PAs”) to deliver the energy efficiency services detailed in the three-year plans. The offerings identified by the PAs in the three-year energy efficiency plans are approved by the Department of Public Utilities (DPU) before being implemented through Mass Save. By law, the PAs must seek to implement all available cost-effective energy efficiency and demand reduction resources. The cost-effectiveness test, termed the Total Resource Cost Test, therefore becomes the critical threshold for what should be included in the plans and what is deemed too expensive.

The 2021 Next Generation Roadmap Law implemented important changes to how costs are screened and benefits are perceived. The Mass Save programs must now integrate the social cost of carbon into cost-effectiveness calculations, and equity and climate change have been added to the list of priorities within the DPU’s mandate. While critical, these improvements require enhanced vigilance to ensure that the roll-out of the changes comply both with the letter and the spirit of the new law. The DPU should update its Energy Efficiency Guidelines to mandate that the assessment of costs, benefits, and cost-effectiveness be updated to align and comply with Commonwealth’s 2030 and 2050 GHG emissions reductions requirements, including an updated social cost of carbon. The process of updating the Energy Efficiency Guidelines should include robust and meaningful stakeholder engagement. Subsequently, the DPU should ensure transparent and timely communication on the final updates made to the guidelines and how they will be applied in the Mass Save programs. If the proposed Three-Year Plan does not meet these elevated commitments, the DPU should return the plan for revision until they do.

Another strong outcome of the 2021 Next Generation Roadmap Law requires the Secretary of Energy and Environmental Affairs to set a GHG emissions limit for each Three-Year Plan, with the first of such limits released on July 15, 2021. Seemingly aggressive, it remains to be seen the impact the limits will have on phasing out fossil fuel incentives and shifting focus to equitable electrification and weatherization. The urgency of climate change and climate justice will necessitate a sharp transition in budgets, investments, planned savings, and benefits away from business as usual and to a significant focus on weatherization, electrification, non-combustion renewable energy technology, clean energy storage and demand management, pre-weatherization and pre-electrification barrier mitigation,

and workforce development - with all costs covered for low-and moderate-income households and other underserved residents and small businesses.

- ▶ **Action 2.3: Implement a local climate zoning package that leads buildings to reduce their GHG footprint, utilize renewable energy, and integrate robust resiliency measures.** The municipal zoning code can serve as a strong local tool to mandate and encourage building decarbonization. While individual jurisdictions cannot govern building energy use if it conflicts with the building code, they can utilize local levers such as zoning to regulate other uses and functions, including those related to climate. By regulating building GHG emissions through local zoning mandates and incentives, cities and towns can accelerate the pace by which their new building stock – as well as those undergoing major renovations that would trigger zoning compliance – contribute to the community’s climate mitigation goals.

Mandates could include zoning overlays that require GHG emissions building caps or eco-roofs (such as green, cool, solar roofs) for particular areas, such as where new construction is expected. Zoning can also be a strong vehicle for enabling greater deployment of renewable energy through language that encourages climate-smart technologies, equipment, and systems or reduces barriers to their deployment. By enabling climate mitigation building technologies, including air-, water-, and ground-source heat pump equipment; battery energy storage; solar thermal; and additional insulation by-right (i.e., without the need for special permit), the pathway to deployment is streamlined and expedited. By exempting them from height and setback zoning requirements or offering density bonuses, weatherization measures that add to the thickness of the building envelope and equipment such as condensers and switch boxes can be integrated without forcing a developer to sacrifice interior building space. With any of these incentives or allowances, municipalities should ensure that affordable housing protections are enforced and aligned.

Further, multifamily and compact mixed-used development is inherently more efficient than single-use development. Achieving the Commonwealth’s climate and housing goals will require accelerating the production of multifamily and mixed-used development, particularly in transit-oriented locations. See “Accelerate the production of diverse housing types throughout the region, particularly deed-restricted Affordable Housing, with a focus on transit-oriented, climate resilient and other smart growth locations” and “**Reduce vehicle miles traveled and the need for single-occupant vehicle travel through increased development in transit-oriented areas and walkable centers**” for more details on these complementary goals.

Best/emerging practice: The Netherlands initiated **Energiesprong** as a government-funded innovation program intended to cultivate and scale whole-building deep energy efficiency retrofits through a standard build and funding approach. The vision is to generate mass demand and a mass market for economic, high performance, net zero retrofits, anticipating that they would greatly reduce upfront costs over time and enable very low operational costs and improved livability for occupants, as well as decreased fossil fuel GHG emissions and climate change impacts. Since 2013, Energiesprong has retrofitted over 4,500 units of affordable housing to net zero energy with 18,000 more in the pipeline in Europe.⁴ Modeled after Energiesprong, RetrofitNY is a New York State Energy Research and Development Authority (NYSERDA) program that aims to create standardized and scalable deep energy-efficient retrofits for the entire housing industry.

RetrofitNY is a \$30 million program funded over ten years and made available through New York State’s \$5.3 billion Clean Energy Fund (CEF).⁵ Pilot retrofits will be publicly subsidized, but the goal is to build a self-sustaining market, reduce design and manufacturing costs, and streamline the financing and retrofit process. RetrofitNY’s pilot phase is focusing on multifamily affordable housing as a uniform building typology. Early successes demonstrate that knowledge transfer and new channels of demand have begun. Since the market has not yet expanded to meet the anticipated demand, challenges include the current high costs of pre-fabricated building exteriors and high-efficiency electric hot water systems. The program is one to watch, as it transitions projects toward construction and potentially overcomes barriers – actions that could enable a similar program in Massachusetts to adapt more quickly and optimize a growing U.S. market for modular and scalable deep energy building retrofits.

Strategy 3

Dramatically increase the share of personal vehicles and municipal and state fleet vehicles that are all electric or low carbon.

The transportation sector accounts for slightly over 40 percent of all GHG emissions in Massachusetts, and nearly half of these emissions are from passenger vehicles. While it is important that vehicles increasingly become more fuel efficient, we must undergo a widespread transition to electric vehicles to decarbonize the transportation sector. Adoption of electric vehicles (EVs) in Massachusetts is slow – in 2018, only 2.53 percent of new light vehicles sold in the Commonwealth were electric.⁶ However, due to declining costs of EVs, improved battery range, and expanded model availability, projections are forecasting that EV sales will increase. If we are to comply with the GWSA mandates, there must be significant movement toward electrification among personal vehicles, state and municipal fleet vehicles, and private fleets.

³ [Energiesprong Explained](#), Energiesprong.

⁴ [RetrofitNY: What is RetrofitNY](#), NYSERDA.

⁵ [NYSERDA Announces First Contract Awards for \\$30 Million RetrofitNY Initiative](#), NYSERDA, June 2018.

⁶ <https://evadoption.com/ev-market-share/ev-market-share-state/>

- ▶ **Action 3.1: Adopt a low carbon fuel standard for vehicles powered by internal combustion engines (ICE).** To facilitate the transition toward EVs, the Legislature should adopt a low carbon fuel standard (LCFS) that will serve to both decrease carbon dioxide emissions associated with ICE vehicles and accelerate the adoption of EVs. An LCFS program will require manufacturers to produce fuels that are less carbon emitting. Adopting a LCFS will make cleaner fuels available to drivers of ICE vehicles, provide incentives for manufacturers to produce low carbon fuels through a credit and deficit system, and serve as an interim measure prior to mandating that all new vehicle sales in Massachusetts be Zero Emission Vehicles (ZEVs). LCFS programs have been successfully adopted in California, Oregon, Washington, British Columbia, and by the European Union.⁷
- ▶ **Action 3.2: Require all new vehicle sales in Massachusetts be ZEVs by 2032.** The Legislature should establish a mandate that will require all new vehicle sales in Massachusetts be ZEVs by 2032. This should not only include personal vehicle sales, but also the purchase and lease of state and municipal fleets, including school buses, as well as light and medium duty commercial vehicle sales. This would put the Commonwealth on the path to achieve its current goal to have 300,000 zero emission vehicles on the road by 2025 and the Department of Energy Resources' (DOER) comprehensive energy planning process, which assumes that two-thirds of new vehicle sales will be electric by 2030⁸. To accelerate this transition, the MBTA, MassDOT, and DOER should conduct a study of opportunities for near-term electrification of vehicles owned and/or leased by municipalities, school districts, and Regional Transit Authorities (RTAs), including an assessment of charging needs.

Numerous countries, including Denmark, France, Germany, India, Ireland, Israel, Netherlands, Norway, Scotland, Taiwan, the United Kingdom, and the Province of British Columbia, have announced measures to phase out ICE vehicles in favor of ZEVs by a specific year.⁹ In the United States, cities such as Denver, New York, and Seattle have announced goals to have ZEVs comprise a percentage of vehicle registrations by a targeted year.¹⁰ Adopting a ZEV mandate by a specific timeframe, along with a plan delineating concrete steps to accomplish this goal, sends a clear message to both vehicle manufacturers and consumers, helping grow the market and drive technological innovation.

- ▶ **Action 3.3: Expand funding for electric vehicle sales and charging infrastructure.** The Massachusetts Electric Vehicle Incentive Program (EVIP) Fleets is a MassDEP rolling grant program aimed at making EVs more widely available across Massachusetts. The program provides incentives for public entities to buy or lease EVs, with funding awards dependent on the size and type of EV the public entity is looking to purchase. In addition to incentivizing EV purchases, MassEVIP also offers programs to support a host of EV charging infrastructure options, including Direct Current Fast Charging, Multi-Unit Dwelling and Educational Campus Charging, Public Access Charging, and Workplace and Fleet Charging.¹¹ This program has allowed MassDEP to provide hundreds of millions of dollars in funding to

7 <https://ww2.arb.ca.gov/our-work/programs/low-carbon-fuel-standard>

8 Synapse Energy Economics, Inc. (2018). Massachusetts Comprehensive Energy Plan Stakeholder Meetings Presentation. <https://www.mass.gov/files/documents/2018/07/20/CEP%20Stakeholder%20Meetings%20Presentation.pdf>

9 European Countries Banning Fossil Fuel Cars and Switching to Electric, Road Traffic Technology, August 1, 2018.

10 Percentage goals to have ZEVs comprise vehicle registrations: Denver – 30% by 2030, New York – 20% by 2025, Seattle – 30% by 2030.

11 <https://www.mass.gov/how-to/apply-for-massevip-fleets-incentives>.

cities and towns and regional entities to electrify public fleets and expand charging infrastructure. The Legislature should increase funding for the MassEVIP program to accelerate these efforts.

To incentivize EV adoption, the Massachusetts Offers Rebates for Electric Vehicles (MOR-EV) program currently offers a rebate of up to \$2,500 for the purchase of an EV. The DOER will make at least \$27 million available per year in 2020 and 2021 for EV incentive programs including MOR-EV. The Legislature should allocate additional funds to extend and target the impact of the MOR-EV program. The MOR-EV program should re-focus this additional funding entirely to provide a more substantial income qualified rebate for residents with low and moderate incomes, create a scrappage program for ICE vehicles, and grow the used ZEV market to further incentivize the purchase of zero emission vehicles. Looking ahead, the Legislature should codify the MOR-EV program in statute to ensure stable long-term funding.

As transportation network companies (TNCs) like Uber and Lyft continue to have a large role in our transportation system and contribute to transportation emissions and vehicle air pollution, there are strategies the Commonwealth can pursue to promote access to EVs for Uber and Lyft drivers. The MOR-EV program should establish standalone or additional rebates for 1) qualified high mileage fleet operators and drivers and 2) low-to moderate-income drivers. In addition, a rebate for the purchase and lease of certified pre-owned full battery EVs should be provided through the MOR-EV program. These efforts should be paired with tailored outreach and education to low- and moderate-income households. The program should also create incentives for car dealerships to ensure a greater share of their vehicles sold are electric. California, Oregon, and Washington¹² offer rebates based on driver income, while Connecticut¹³ and Colorado¹⁴ offer rebate incentive programs for dealerships and ride-hailing companies, respectively.

► **Action 3.4: Expand procurement opportunities and advance funding programs for fleet electrification.** Existing opportunities for cities and towns, the MBTA, RTAs, and state agencies to invest in electrifying their fleets should be expanded and broadened. Efforts to lower vehicle costs and grow the market can be accomplished by expanding region- and state-run collective procurements, such as via group purchasing that enables bulk pricing for school buses. The parameters set within public vehicle procurements can be a driving force in expanding the EV market.

In addition to increasing funding for the MassEVIP program, as detailed in Action 3.3, the Commonwealth should explore a voucher program to assist with the upfront purchase or lease of fleet vehicles. For example, with funds from the Volkswagen Settlement and Congestion Mitigation and Air Quality (CMAQ) Improvement Program, New York's Truck Voucher Incentive Program provides vouchers to public, private, and nonprofit fleets for the purchase or lease of all-electric vehicles¹⁵. Robust funding programs must be available and collective purchasing tools leveraged to enable the transition to fleet electrification and ensure that additional financial burdens are not placed on municipalities and agencies.

12 Transportation Electrification: States Rev Up, National Governors Association, 2019.

13 <https://portal.ct.gov/DEEP/Air/Mobile-Sources/CHEAPR/CHEAPR-Home>

14 Colorado Lawyer, Plugging into the Colorado Region, February 2020.

15 <https://www.nyserda.ny.gov/All-Programs/Programs/Truck-Voucher-Program>

Nationwide, municipalities and states are implementing innovative and ambitious programs to transition to electric school buses. For example, in partnership with Dominion Energy, the state of Virginia launched a program to replace its entire school bus fleet with electric buses by 2030. To accelerate the adoption of electric buses by school districts, New York's Truck Voucher Incentive Program¹⁶ covers 80 percent of the incremental cost and California's Hybrid & Zero-Emission Truck & Bus Voucher Incentive Project¹⁷ offers up to \$220,000 per school bus, plus \$15,000 per bus if operated in a disadvantaged community. Massachusetts must act at least as boldly

- ▶ **Action 3.5: Adopt a statewide right to charge policy.** A right to charge policy states that residents in multi-unit buildings (and other buildings) have the right to install vehicle charging infrastructure for their private use.¹⁸ Right to charge policies typically outline reasonable regulations and conditions that must be met for individuals to move forward with installation. In January 2019, Governor Baker signed into law a home rule petition filed by the City of Boston to enact a local right to charge policy for condominium unit owners.¹⁹ This now allows condo owners to install EV charging stations at or near their parking spaces, subject to reasonable rules and restrictions. The Legislature should pursue a statewide right to charge policy so that residents of multi-family buildings across the Commonwealth have the ability to install charging infrastructure for their personal use, and so that living in a multi-family building does not present a barrier to purchasing an EV.

16 <https://www.nyserda.ny.gov/All-Programs/Programs/Truck-Voucher-Program>

17 <https://www.californiahvip.org/>

18 NASCAUM Right to Charge Laws, October 2019. <https://www.nescaum.org/documents/ev-right-to-charge.pdf>.

19 An Act Establishing Guidelines for the Installation and Use of Electric Vehicle Charging Stations in the City of Boston, <https://malegislature.gov/Laws/SessionLaws/Acts/2018/Chapter370>.

20 <https://thehill.com/policy/energy-environment/421438-california-commits-to-100-percent-electric-bus-fleet-by-2040>

21 <https://ny.curbed.com/2019/5/6/18533462/mta-re-tires-diesel-buses-rapid-transit-series-all-electric-fleet>

22 <https://la.streetsblog.org/2017/11/09/l-a-city-approves-full-ladot-transit-electrification-by-2030/>

23 <https://www.masstransitmag.com/bus/vehicles/hybrid-hydrogen-electric-vehicles/article/21076292/chicago-city-council-approves-transition-to-100-percent-renewable-energy>

24 <https://www.theurbanist.org/2020/01/31/king-county-purchases-40-battery-powered-buses-and-ponders-full-electrification-by-2035/>

Strategy 4

Accelerate a commitment to expand and electrify public transportation.

Making it easier for more people to use our most efficient mode of transportation, public transit, is a fundamental component of our efforts to decarbonize transportation. While the social, public health, and environmental benefits of making biking and walking the most convenient and enjoyable mobility option cannot be overstated, a well-designed and reliable public transit network is also a necessary component of a low-carbon public transportation system, particularly for longer distances. Along with lowering air pollution and improving public health outcomes in Environmental Justice communities, electrified public transit also has the potential to provide significant economic benefits due to reduced maintenance and fuel costs, especially in high-mileage use cases.

Across the country, cities are advancing fleet electrification commitments and initiatives. In California²⁰, all transit agencies will be required to procure fully electric buses starting in 2029. New York City²¹, Los Angeles²², Chicago²³, and Seattle²⁴ all have commitments to convert their fleets entirely to fully electric. The MBTA's Focus40 Plan has broadly pledged to undertake a "phased conversion to zero-emissions fleet and facilities" once successful electric bus pilot programs are

complete and a capital plan for the maintenance facilities has been developed. The MBTA must strengthen and accelerate this pledge²⁵.

While vehicle electrification is an essential component of any transportation decarbonization scheme, the Commonwealth must also invest a robust, reliable, and affordable public transit network and accelerate the production of affordable housing and mixed-used development near transit. Compact growth near high quality transit and enabling people to live with no or fewer vehicles offers many co-benefits, including improving economic mobility, reducing commute times, improving public health outcomes by reducing air pollution and traffic fatalities, and conserving open space necessary for carbon sequestration. Ways to accelerate this mode shift are explored more deeply in “**Improve accessibility and regional connectivity**” and “**Reduce vehicle miles traveled and the need for single-occupant vehicle travel through increased development in transit-oriented areas and walkable centers.**”

- ▶ **Action 4.1: Pursue public-private partnerships to advance electrification upgrades to MBTA bus maintenance facilities.** Providing adequate charging infrastructure is imperative to effectively advance bus electrification. The MBTA’s 2017 Integrated Fleet and Facilities Plan recognized that either upgrading or replacing all eight of the facilities that maintain and garage MBTA buses is a critical need. However, the MBTA faces fiscal challenges to acquire new funding resources to bring these facilities up to a state of good repair. The MBTA should pursue public-private partnerships to accelerate both bus electrification and modernization of bus facilities. Using the Albany Street Garage in Boston as a case study, A Better City explored the potential for electric bus technology to serve as the basis of a public-private partnership in which the private sector could finance and/or construct an electric bus maintenance facility as part of a larger mixed-use development project. The study concluded that this concept has the potential to provide a cost-effective public/private site development strategy that could both modernize and expand the MBTA’s bus facility network.²⁶
- ▶ **Action 4.2: Require all electric utilities to establish time varying rate structures for EV charging infrastructure and financing programs that support the acquisition and operation of electric buses.** Utilities need to play a proactive role that supports and facilitates the transition to transit electrification. Municipalities and transit agencies should work collaboratively with the DPU, Eversource, and National Grid to design rate structures that support transit electrification by making charging more economical. Specifically, this includes working with utilities to offer off-peak discounts for charging and time-of-use (TOU) pricing, and instituting policies and practices that make the business case for buses to be used for energy storage and vehicle-to-grid technology.

25 <https://www.mbtafocus40.com/focus40theplan>

26 A Better City, New MBTA Bus Maintenance Facilities and Evolving Battery Electric Bus Technology, August 2019.

Another option is to develop a financing program in which electric utilities provide upfront funding for vehicle investments and allow municipalities and public transit agencies to pay the utility back on their utility bills as they save on fuel and maintenance costs. A “pay as you save” financing or repayment program can enable municipalities and public transit agencies to address the challenge of higher upfront costs associated with purchasing electric buses and allow for short-term financial savings that could be used to pay for other electrification investments such as charging infrastructure²⁷.

²⁸.

► **Action 4.3: Take part in battery leasing programs with manufacturers.**

Primarily due to battery cost, electric buses require more upfront investment than their diesel counterparts do. The MBTA should take part in financing and leasing programs offered by bus manufacturers designed to reduce the barrier of higher upfront capital investments. For example, the electric bus manufacturer Proterra offers a battery leasing program. While Proterra retains ownership of the battery, this program allows public transit agencies to use the battery over a multi-year agreement²⁹. Battery leasing is a low-cost financing program that accelerates the procurement of electric buses. The battery leasing concept effectively splits the ownership of an electric bus between the transit agency, which owns the body of the vehicle, and the company that owns and powers the battery.

Best/emerging practice: Low-emission zones (LEZs) have been established in more than 260 cities across Europe. While design and regulation of LEZs varies by city, they all work on the principle of prohibiting or levying fines on polluting vehicles, while granting preferential access to approved vehicles in a defined geographic area. Although definitions and designs vary, the primary goal of LEZs is to reduce exposure to traffic-related air pollution and curb tailpipe emissions.

Many LEZs have increasingly strengthened their requirements over time and are expected to continue doing so. These requirements consist of stricter emissions criteria, extension of regulated areas, and inclusion of more vehicle types (e.g., light-duty or heavy-duty). For example, London is in the process of implementing “ultra-low emission zones.” The majority of LEZs operate 24 hours a day, 365 days a year (e.g., Berlin, Stuttgart, Amsterdam, Brussels), but others operate only on certain days and at certain times (e.g., Paris)^{30, 31}.

²⁷ U.S. PIRG Education Fund, Environment America Research and Policy Center, Frontier Group, *Electric Buses in America - Lessons from Cities Pioneering Clean Transportation*, October 2019.

²⁸ Frontier Group, MassPIRG Education Fund, Environment Massachusetts Research and Policy Center, *Electric Buses in America – Clean Transportation for Healthier Neighborhoods and Cleaner Air*, May 2018.

²⁹ Clean Tech Media, *Proterra Rolls Out \$200 Million Electric Bus Battery Leasing Program with Mitsui*, April 19, 2019.

³⁰ *Impacts of the Paris Low-Emission Zone and Implications for Other Cities*, The Real Urban Initiatives Initiative, March 2020.

³¹ *Urban access regulations in Europe* <https://urbanaccessregulations.eu/>.

► **Action 4.4: The Executive Office of Energy and Environmental Affairs should establish a statewide VMT reduction goal in the Clean Energy and Climate Plan.** While vehicle electrification is an essential component of any transportation decarbonization scheme, the Commonwealth must also work to reduce the need to drive and shift a larger share of those trips to walking, biking, or transit. MAPC estimates vehicle miles traveled (VMT) will grow 21% from 2010 to 2030 in the absence of any intervention, and relying on electrification alone means costly subsidies and tremendous pressure on the grid to accommodate the swift electrification of personal vehicles. Reducing the need to drive by improving and expanding walking, biking, and public transit infrastructure and facilitating more compact mixed-used development near transit offers a host of benefits beyond reduced emissions. Expanding the number of destinations accessible by modes beyond driving can reduce traffic congestion and traffic fatalities, improve air quality, and reduce transportation cost burden and improve economic mobility among low-income individuals.

The Interim Clean Energy and Climate Plan (CECP) currently includes a goal to reduce commuter VMT by 15% by 2030. This is an important first step, and requires strengthening the existing Rideshare Regulations within the Department of Environmental Protection (see specific program recommendations in Action 3.3. in “**Reduce vehicle miles traveled and the need for single-occupant vehicle travel through increased development in transit-oriented areas and walkable centers**”). The Executive Office of Energy and Environmental Affairs (EEA) should build upon this goal and identify a statewide VMT reduction target within the CECP. At a minimum, given current travel behavior changes resulting from the COVID-19 pandemic, there should be a short-term goal to stabilize VMT. A longer-term statewide VMT reduction goal should be identified once current trends stabilized. Commute trips only represent about 25 percent of all trips taken.³² As post-pandemic commute and travel writ large continues to become more flexible, the Commonwealth should take a more holistic approach to reducing VMT, lowering emissions while enabling more access to opportunity without a car. Planning to achieve this target should be guided by prioritizing access in communities with a higher percentage of individuals who are low-income and transit-dependent, and should happen in coordination with similar efforts at MassDOT (see “**Improve regional accessibility and connectivity**”).

³² https://www.ctps.org/data/pdf/studies/other/Exploring_2011_Travel_Survey.pdf.

Homes for Everyone
Accelerate the production of diverse housing types, particularly deed-restricted affordable housing, throughout the region. Focus on transit-oriented, climate resilient and other smart growth locations.



Recommendation:

Accelerate the production of diverse housing types throughout the region, particularly deed-restricted Affordable Housing, with a focus on transit-oriented, climate resilient and other smart growth locations.

Strategy 1

Expand Housing Choice to empower localities to zone for housing diversity.

Greater Boston is home to a great diversity of people and households. Households may be large or small, comprise family members or unrelated people, and include seniors, young children, or both. The region's households also have many different needs: proximity to public transit; a stair-free, accessible unit; multiple bedrooms to accommodate an elderly family member or an expected child; or a price that fits a certain budget. However, diversity of housing form and pricing are limited in the Commonwealth for several reasons, including high development costs and restrictive local zoning.

The Commonwealth's 2021 Housing Choice legislation¹ represents a meaningful first step in addressing the severe housing shortage by lowering the super majority voting approval threshold for select residential zoning and permitting, thereby facilitating housing production (see Action 1.4 below). Furthermore, through its focus on multifamily development and compact development in smart growth locations, the legislation will result in a greater diversity of housing types available in many localities. In the coming years, the state should continue to facilitate more inclusive and diverse local housing production, specifically by encouraging affordable units and units that meet a variety of physical and household needs.

► **Action 1.1: Require that “missing middle” housing types be permitted by right in single-family districts in municipalities above certain thresholds.**

States and municipalities across the nation have been considering “missing middle” housing, or small homes and moderate-scale multifamily housing, to increase housing diversity in context with the local built environment. In today's market, new housing development often comprises either expensive single-family homes or large-scale multifamily buildings, with little in between. “Missing middle” typologies fill that gap. Historically

¹ [Housing Choice at a Glance – MAPC; FINAL Housing Choice and 40R language.](#)

some of these housing types – such as accessory dwelling units (ADUs) or triple-deckers – were common throughout the region. However, many were banned in a wave of exclusionary zoning practices in the mid-20th century, often with the goal of racial and economic segregation. For the many households, duplexes, “tiny houses”, ADUs, modern triple-deckers (including both owner occupied and rental units), or modest single family “starter” homes are more in line with their needs and financial capacity.

Municipalities above a certain threshold (see below) should be required to permit moderate-scale housing types, such as duplexes, triplexes, or cottage clusters, in districts currently zoned exclusively for single-family housing. Such a policy should also allow existing single-family homes to be converted to duplexes or triplexes. These housing types should be allowed by right and should be subject to reduced off-street parking requirements. Localities subject to this policy could set reasonable siting and design requirements provided that those requirements do not, individually or cumulatively, discourage the development of permitted missing middle housing types through unreasonable cost or delay. This policy would not prohibit the construction of large single-family housing on large lots, but rather would ensure that it is not the only option available.

In some municipalities not subject to such thresholds, state law should require municipalities to allow ADUs by right in districts zoned for single-family use. Most localities in the Commonwealth either do not allow ADUs or only allow them under limited circumstances. Allowing ADUs in these locations would incrementally create alternatives to single-family housing while generating rental income for homeowners. Appropriate limitations, such as allowing communities to limit ADUs to an overall percentage of units or allowing a permit for ADUs that increase the footprint of the building, would maintain an appropriate level of local control while allowing a much-needed increase in housing supply for families of varied means.

To implement this recommendation, the state should study and identify specific benchmarks for categorizing municipalities that would be subject to these requirements. One possible threshold could be those used in the Housing Choice legislation: In that case, Massachusetts Bay Transportation Authority (MBTA) communities would be required to allow ADUs by right, and all areas within a half mile of transit stations would be required to allow additional missing middle housing types by right. Alternatively, benchmarks may be based on the housing submarkets identified in this plan, neighborhood characteristics, potential for smart growth, or another metric. The metrics should also define whether some communities, such as sparsely populated rural towns, should be exempt from this policy altogether.

For such a policy to be successful, municipalities must have the resources needed to thoughtfully implement new zoning ordinances or bylaws. Concurrently with the policies outlined above, Massachusetts should appropriate technical assistance funds for municipalities to zone for missing middle housing and to plan for any needed infrastructure improvements, such as water, sewer, storm drainage, and transportation services (see Policy Action 2.1 below). Regional planning agencies (RPAs), private consultants, or state agencies could provide municipalities with needed support.

Best/emerging practice: In the past few years, upzoning legislation has been introduced or passed in Oregon, Washington, California, Nebraska, Virginia, and Maryland, as well as at the municipal level in cities across the country. Many of these states' proposed or adopted bills are tiered to account for communities of different sizes or needs. For example, Oregon's law, the first in the country that addresses single-family zoning at the state level, requires that municipalities with populations greater than 25,000 allow duplexes, three- and four-plexes, and cottage clusters in single-family districts. Municipalities over 10,000 people must allow duplexes in all areas zoned for single-family use. Importantly, the state provides technical assistance in the form of model bylaws and a \$3.4 million fund for municipalities to plan for the local regulatory changes and address gaps in infrastructure.

► **Action 1.2: Monitor implementation of the 2021 law requiring multifamily zoning in MBTA communities to ensure efficacy and expand the definition of housing types required by right near transit.** Larger multifamily and mixed-use development most efficiently uses land and creates the kinds of economies of scale that can provide significant community benefits, such as the inclusion of deed-restricted Affordable Housing. There are areas in nearly every community where this kind of housing works, but there are significant barriers to this development, including limited by-right local zoning, complicated local special permit processes, and multiple political approvals needed for individual developments to proceed.

In 2021 Massachusetts took a critical first step toward ensuring that housing options for those who do not need or cannot afford a single-family house are available in all communities benefiting from MBTA service. The Housing Choice legislation includes a requirement that communities served by the MBTA have at least one zoning district of reasonable size in which multifamily housing is allowed by right. Communities not in compliance risk losing eligibility for select state funds, including the Housing Choice Initiative, the Local Capital Projects Fund, and the MassWorks infrastructure program.

The Department of Housing and Community Development (DHCD), in consultation with the MBTA and the Massachusetts Department of Transportation, must issue guidance to determine whether an MBTA community complies with the new requirements. Although this guidance

has not yet been released, it will be essential to the legislation's success. It should provide specific direction on what constitutes a reasonably-sized zoning district; whether existing zoning meets the requirement even if opportunities to increase production within the district are limited; whether mixed-use development meets the requirements, and under what circumstances; what constitutes housing suitable for families with children; whether districts are in a location appropriate for family housing; whether communities with more than one major transit stop must adopt a multifamily district for each stop; whether requirements differ for rail and bus stations; and safeguards against the use of dimensional standards, parking requirements, or infrastructure constraints to avoid the requirement. DHCD is currently drafting this guidance, which may be issued prior to the publication of these policy recommendations.

This list is not exhaustive, and there will doubtless be unforeseen loopholes or complications that arise as the policy is implemented. DHCD should closely monitor implementation and, after a five-year period, assess whether the intent of the legislation is being met and whether access to the identified funding sources is sufficient motivation for municipalities to comply. If not, the state should consider other incentives, such as providing additional funding to compliant communities. It might also consider a process that would enable developers of properties near transit to override local zoning in non-compliant municipalities, similar to the existing MGL Chapter 40B process.

After the regulations are successfully rolled out, the state should consider possibilities for expansion. This might include enlarging the district size in appropriate circumstances, so that an increasing percentage - or even all - of the area within a half mile of a transit station would allow multifamily housing by right. The state should also consider whether a half mile radius is the appropriate metric and whether there are other areas where denser development may be appropriate, such as bus corridors, retail nodes, former industrial or commercial sites, or other amenity-rich locations. Increasing housing options in high-opportunity areas is of particular importance given the continuing legacy of mid-20th century zoning policies that intentionally sought to exclude persons of color and low-income households, as well as exclusionary practices that continue – formally or informally – today.

Notably, the 2021 legislation does not include an affordability component. For many low-income households without access to a private vehicle, public transit is a necessity, and rising housing costs and displacement risk around transit stations motivate opposition to new development. The legislation would be strengthened by provisions to ensure that households with a range of incomes can live in these high-opportunity areas. This may take the form of an embedded inclusionary zoning requirement or specific, tangible incentives for municipalities to incorporate increased affordability. As with the previous policy action, technical assistance funding should be made available to localities seeking to implement these zoning changes (see Policy Action 2.1 below).

Best/emerging practice: Though currently stalled, California has pursued legislation that would allow multifamily housing in high-opportunity areas, including those with transit access, through incremental density increases over time. California’s proposal includes several equity-focused components, such as an extended grace period for communities with high displacement risk, an exemption for naturally affordable housing that is home to long-term tenants, and substantive inclusionary provisions (20 percent of units affordable to households earning 60 percent of AMI, or all units affordable to moderate-income households earning 100 percent of AMI). It also covers additional high-opportunity areas beyond those with transit access, such as those with high-quality schools or a high concentration of jobs. Incorporating affordability and tenant protections into transit-oriented development is a model that Massachusetts should follow. Los Angeles’ Transit Oriented Communities, a transit-oriented density-based incentive program with deeper affordability levels, is another example.

► **Action 1.3: Monitor the abutter appeals process. In early 2021 the Commonwealth took a critical step toward reforming the abutter appeals process.** Previously, neighbors of a proposed project could challenge it for almost any reason, even if it had already received community support and all approvals. The residents most likely to participate in public processes tend to be older, male, or longtime homeowners who often oppose new housing construction.² Often, a small minority of residents can halt or delay projects that may offer broad community benefits, raising significant equity concerns. Even if the project obtains all local approvals, this same minority can challenge the project in court, costing the proponents years of further delay and large sums of money, while further preventing the benefits of additional housing.

The 2021 legislation, passed as part of the Housing Choice law, seeks to address this issue by allowing abutter appeals with merit to be heard while discouraging meritless appeals intended to stop or delay a development. The new law gives courts the discretion to require the person appealing the decision -including approval of a special permit, variance, or site plan - to post a bond that may be used to cover legal fees and holding costs if the appeal is denied. This new legislation has the potential to reduce a powerful barrier to new housing while allowing well-founded appeals to proceed.

After a five-year period, the state should study the impact of the new law on the frequency and type of abutter appeals and make amendments, as needed. The state may need to provide guidance as to what constitutes reasonable and meritorious grounds for appeal, such as direct displacement without a right to return, and what constitutes a frivolous appeal, such as those grounded in development impacts (e.g. school, sewer, environmental), despite rigorous study and mitigation; impacts on light, air, and shadow; or

² Einstein, Palmer, and Glick. “Who Participates in Local government? Evidence from Meeting Minutes.” August 25, 2017. Accessed at <http://sites.bu.edu/kleinsteinst/files/2017/09/Einstein-PalmerGlick_ZoningPartic.pdf>

“community character.” See the “**Make government more participatory and inclusive**” recommendation for more actions on developing meaningful and engaging public participation processes.

- ▶ **Action 1.4: Expand the Housing Choice law, which requires a simple majority rather than a super majority, to include additional zoning changes that encourage diverse housing types.** Governor Baker’s Housing Choice legislation, adopted in early 2021, lowered the required vote for select smart growth residential zoning changes from super majority to simple majority, removing one barrier to greater housing supply and diversity. The simple majority threshold now applies to accessory dwelling units, multifamily or mixed-use zoning in 40R-eligible locations, open space residential development, 40R Smart Growth Overlay Districts, and modifications to parking and dimensional requirements to allow for more housing.

However, many zoning changes that expand housing choice still require a two-thirds supermajority voting approval threshold that is often challenging to meet. Most notably, this includes inclusionary zoning, which requires that a certain percentage of new units in residential developments above a certain scale be set aside for low-income residents. The very high super majority threshold makes it difficult to implement this type of zoning, and, consequently, many of these proposals fail or are pulled because local planning authorities know they will not receive support of two-thirds of Town Meeting or City Council.

The state should expand the new law to include additional zoning decisions that promote housing diversity and affordability. Additional zoning decisions that the state should consider incorporating into Housing Choice may include inclusionary zoning; parking requirements for by-right multifamily development; disposal of property for the purposes of housing; adaptive reuse; or other potentially inclusive zoning changes that become apparent over time. Expanding the new law to include inclusionary zoning is especially important and should be adopted as soon as possible, since it is one of the few zoning decisions that directly encourages the development of Affordable Housing.

Strategy 2

Strengthen state funding programs to promote housing production of all types and Affordable Housing in particular.

The Commonwealth has multiple funding sources to encourage housing production. Given the limited nature of these and all Affordable Housing funds, it is critical they be utilized to maximum effect. Toward that end, there are changes to existing funding tools that can be made and new funding streams that will maximize the results of local efforts to expand the housing supply.

► **Action 2.1: Create a new funding stream for deed-restricted Affordable Housing production.** While regulatory changes are critical to addressing the regional housing shortage, substantial public funding is needed to truly meet the region’s housing needs, particularly those of the state’s lowest-income and most vulnerable residents. The private market alone simply will not produce enough housing or housing at deep enough affordability levels. However, it is essential that any new revenue source minimize impacts on low-income households. Taxes that are levied universally, such as a sales tax or a gas tax, can disproportionately impact low-income households because the tax constitutes a greater share of their income. New revenue-generating measures should be designed such that the tax burden is distributed equitably across income brackets.

To provide this dedicated funding source, the Commonwealth should pursue an increase in the deeds excise fee, as proposed by [S.1853/ H.2890](#): An Act relative to providing for climate change adaptation infrastructure and affordable housing investments in the Commonwealth, filed by Senator Jamie Eldridge and Representative Nika Elugardo. This bill, also known as the housing and environmental revenue opportunity or HERO bill, would double the deeds excise tax and divide the new revenue equally between affordable housing and climate mitigation. Alternative sources of revenue should also be considered. New funds generated through the deeds excise fee increase or other source would supplement the housing funds made available through the 2018 housing bond bill without diverting resources from existing bond appropriations. Further information on this bill is available in the “[Expand and improve the way we finance local and regional government recommendation](#)”.

A portion of the revenue generated should be used to provide technical assistance to municipalities that are undertaking processes to meet other housing-related policy actions, such as capacity building for local affordable housing trusts. However, most funds should support the production and preservation of permanently Affordable Housing, such as through technical assistance with disposal of municipally-owned land or predevelopment planning.

An increase in the deeds excise tax would result in greater housing resources at the state level. To create a funding stream at the local level, the state should enable a local real estate transfer tax as described in Action 1.4 in “[Ensure adequate protections against displacement for communities and residents of color, low-income communities, and renters](#)”.

Best/emerging practice: In 2018, the greater metropolitan region of Portland, Oregon passed a regional Affordable Housing bond measure. The \$652.8 million Affordable Housing general obligation bond measure covers three counties and eight implementing jurisdictions that include cities, housing authorities, and the regional governing agency that oversees regional land use. Each implementing agency creates its own local implementation strategy, which allows for local flexibility within the framework of the bond’s overarching principles of racial equity, assistance for the neediest residents, creation of region-wide opportunity, and good governance. The bond is intended to create 3,900 Affordable Housing units through a roughly even mix of new housing production and acquisition of existing naturally occurring affordable housing. It includes specific production targets for family-sized units and deeply affordable homes (those affordable to households earning less than 30 percent of AMI) and limits the number of units at the higher end of the affordability scale (60-80 percent of AMI).³ The structure of a regional bond in Greater Boston would necessitate different considerations due to differences in state requirements, but the Legislature could overcome this implementation challenge by granting localities, groups of localities, counties, RPAs, or other entities the ability to raise revenue for specific purposes and then bond against those revenues. Such a tool should still be considered as a model for regionally targeting housing action in a state with wide geographic differences in housing need.

► **Action 2.2: Increase the efficacy of the Community Preservation Act by increasing the state match, encouraging utilization across all required categories, and proactively collecting program data.** In many municipalities, particularly in smaller towns or cash-strapped cities, the Community Preservation Act (CPA) is one of the few available resources to fund local housing, open space, and preservation programs. CPA funds are generated through a surcharge on the local property tax and are supplemented by a match from the state.

Municipalities are required to spend at least 10 percent of CPA funds in each of three categories: Affordable Housing, open space and recreation, and historic preservation. Municipalities may spend the remaining 70 percent in any of these three categories. In many cities and towns, however, the required portion of funds in at least one category goes unspent due to lack of capacity, lack of political will, or lack of viable projects. To incentivize compliance across all three categories and encourage municipalities to exceed this requirement, the additional portion of the state match, described in Action 1.1 in “**Ensure land preservation, conservation, and access to recreational spaces**”, should be made available to towns that have spent 15 percent of their CPA funds across each of the three categories. An exception should be available for municipalities that are reserving funds for planned future projects – for example, a town that is holding its recreation funds in anticipation of a planned new park – and for municipalities that

³ [Affirmative action program utilization and availability analysis \(oregonmetro.gov\)](https://www.oregonmetro.gov/affirmative-action-program-utilization-and-availability-analysis)

have demonstrated a clear need to spend more heavily in one category – for example, a town that has identified an affordable housing project as a high priority and plans to spend 80% of its CPA funds on housing. These exceptions could be demonstrated through a 5-year CPA strategic plan or other planning document. Municipalities that have not met the bonus criteria would continue to receive the base state match that is currently available.

In some smaller communities, the barrier to spending CPA funds is a lack of capacity, particularly in the housing category. In many of these towns, housing initiatives are often spearheaded by the municipal Affordable Housing Trust or Community Preservation Committee (CPC). These groups comprise volunteers who are often passionate about housing but do not necessarily have technical housing expertise. The Massachusetts Housing Partnership (MHP) and other state agencies currently provide some support, but these local committees would benefit from additional capacity building. The state should provide technical assistance funding for these municipalities to develop implementable strategic plans that ensure effective utilization of their CPA housing funds, as well as technical assistance to support implementation.

To monitor progress and gain a greater understanding of program expenditures, the state should more actively collect data on CPA expenditures. First, the data currently collected through local reporting to the Department of Revenue (DOR) should be made publicly available in an easily accessible format. While the Community Preservation Coalition already maintains a database of CPA projects, additional information collected by DOR should also be publicly accessible. DOR already has the statutory authority to spend money from the CPA Trust Fund to administer the program, which includes these data collection and reporting functions, so the state should determine whether any additional resources are needed to address barriers to carrying out these functions. The state should allocate resources to the DOR to support this task. Additionally, the state should issue guidance on reporting requirements for local Affordable Housing Trusts that have received CPA funds. Housing trusts are better equipped to nimbly distribute funds but are not subject to the same reporting requirements as a CPC, which makes it difficult to understand how these funds are used. The state should require that housing trusts in receipt of CPA funds are required to report to DOR in the same manner as a CPC, enabling it to better understand local expenditures and plan for the program in the future.

For additional recommendations related to CPA, please see Action 1.1 in [“Ensure land preservation, conservation, and access to recreational spaces”](#).

► **Action 2.3: Expand the 40S program to mitigate the impacts of new development on school enrollment.** Community opposition to new housing often centers around the perceived negative impacts on schools, traffic, infrastructure, and community character, although complaints about impacts on character often conceal opposition based on race or class. Municipalities can require developers to study and mitigate a project’s impact on traffic and sewer systems, and towns can implement design guidelines to ensure new development is in keeping with the character of the built environment. However, municipalities lack the ability to require mitigation for any impacts on school enrollment.

To address this barrier to housing and Affordable Housing production, Massachusetts passed Chapter 40S, which compensates municipalities for school costs incurred as a result of new housing in 40R Smart Growth Overlay Districts. Compensation is based on the net fiscal impact to the municipality, or whether the additional school costs exceed tax revenue generated from the project. To date, most 40R developments became the home for fewer school-aged children than opponents claimed during the planning process. These developments often do not trigger 40S payments in large part because up to 80 percent of the units in 40R developments can be market rate and the units typically have relatively few bedrooms (primarily one- and two-bedroom units, with a few three-bedroom units). However, even if the 40S payments are ultimately not allocated, this tool serves to allay concerns about school impacts during the planning and development process.

To ease the path for new multifamily housing - not just within 40R districts, the state should expand eligibility for 40S payments to include all multifamily housing with at least 15 percent of units affordable to households earning 80 percent of AMI. Projects with fewer units at deeper affordability levels (e.g., 10 percent of units affordable to 60 percent AMI) should also be considered for 40S eligibility. Along with expanding project eligibility, the state should commit to guaranteed, dedicated funding to ensure consistent access to this resource.

As part of the program expansion, the state should collect robust data about new construction projects, number of bedrooms, and school impacts. This data would not only help the state understand potential program costs, but also could be used to help localities to understand and address concerns regarding school impacts of specific development projects. More recommendations for 40S are available in the recommendation: “**Reduce vehicle miles traveled and the need for single-occupant vehicle travel and increase development in transit-oriented development and walkable centers**”.

► **Action 2.4: Expand resources for public housing authorities to undertake renovation of existing properties and to acquire and build new units.** Due to decades of inadequate funding at the federal level, most local public housing authorities do not have sufficient operating funds to renovate properties or, in some cases, to even perform basic maintenance. The result is that many public housing buildings, some more than 50 years old, are facing years of deferred maintenance and potential obsolescence. Yet, most housing authorities lack the resources to perform the long-overdue systems upgrades and improvements that would keep their buildings functioning and safe.

Housing authorities do, however, own land, much of which is underutilized. The Commonwealth has recently sought to leverage this resource through its Partnership to Expand Housing Opportunities program, which supports public-private partnerships to renovate and expand housing authority properties. The 2016 pilot awarded predevelopment grants to the Chelsea and Somerville Housing Authorities to redevelop the Innes and Clarendon Hill Apartments, respectively, with subsequent support from other state sources including the MassWorks Infrastructure Program. The mixed-income redevelopments currently underway include modernization or one-to-one replacement of existing housing authority units coupled with new workforce and market rate units. A second round of funding was released in 2020. The state should continue to support and scale this program.

Increased access to capital may even position high-capacity authorities to acquire new properties on the open market, as housing authorities in [Austin](#) and [Seattle](#) have done. This strategy has enabled both housing authorities to expand into higher-opportunity areas of their jurisdictions, providing more locational choice for lower-income residents and breaking generational patterns of segregation. The approach also addresses the issue of housing voucher discrimination: while many private landlords decline to rent their units to voucher holders, the housing authorities readily accept voucher holders as tenants.

However, creating the tools for housing authorities to pursue capital improvements and expansion may not be sufficient. While Massachusetts has many high-capacity housing authorities, it is also home to many small authorities that likely lack the expertise and bandwidth to seek potential new resources, inclusively plan for improvements, oversee intensive renovations, or structure the complex financing and partnerships that would be part of any expansion or acquisition. The state should equip the DHCD to provide robust technical assistance to small authorities, perhaps in conjunction with the capacity building program recommended in Policy Action 2.2, to pursue and implement needed improvements, as well as the construction of new units.

In any housing authority redevelopment project, it is essential that there be at least a one-for-one replacement of low-income units, that those units be available at the same level of affordability, and that the authority institute a relocation plan to ensure current residents' housing needs are met during the transition. The renovated developments should be managed

as welcoming places for low-income households and households of color, which has not always been the case in mixed-income public housing redevelopments.

Fully unlocking the potential of housing authorities would require action on the federal level, including a major increase in federal operations and maintenance funding and a repeal of current federal limits on housing authority expansion. To the greatest extent possible, the state should advocate for changes at the federal level in addition to pursuing state-level action.

Strategy 3

Dedicate resources to better equip the private market to build diverse housing.

It is the responsibility of local and state government to ensure that favorable regulatory conditions exist to build more diverse and affordable housing, but it is typically the private market that ultimately develops this housing in the United States today. This means that, in an expensive region like Greater Boston, where the cost of building and operating deed-restricted Affordable Housing and naturally occurring affordable housing almost always exceeds revenue generated from those units, the Commonwealth must ensure private and nonprofit developers have the subsidy needed to produce housing at a range of price points.

- ▶ **Action 3.1: Develop a state program to finance the construction of ADUs and other missing middle housing types.** In addition to regulatory constraints, which are addressed in Policy Action 1.1 above, the ability to secure financing is often a significant barrier to building an ADU. Costs to build an ADU can be as high as \$150,000 to \$200,000 for a single unit.⁴ While this cost is low compared to the per-unit costs of developing new multifamily housing, it is far more than most homeowners can access through traditional means, such as a home equity loan or refinancing. Unlike developers of larger projects, individual homeowners do not typically have access to large amounts of equity, and most banks and lending agencies do not offer loans for ADUs.

The Commonwealth should establish a revolving, low-interest loan fund that enables homeowners to borrow funds based on anticipated rental income from future ADUs. To encourage even deeper affordability, the program should include incentives – such lower interest rates, deferred payments until sale of property, or loan forgiveness – to homeowners who agree to rent their ADU to low-income residents or rental assistance voucher holders.

⁴ Costs based on interviews with municipal officials and self-reported costs from “Building an ADU,” <http://www.buildinganadu.com/cost-of-building-an-adu/>.

Best/emerging practice: There are several examples of similar programs nationwide, including in Portland, Oregon, and several municipalities in California. The Silicon Valley Housing Trust offers a construction loan specifically tailored to ADUs that functions as a second mortgage. The financing involves interest-only payments the first year, and then anticipates refinance after the third year once the ADU is stabilized and conventional funding sources are more readily available. The program requires that residents of the new ADU be low- or middle-income for at least two years. The Backyard Homes Project in Los Angeles is designed as a one-stop shop for ADUs, including design, construction, and financing options. Financing through one of two program partners, the Genesis Community Investment Fund or the Self-Help Federal Credit Union, offers a first mortgage refinance. The program requires that the ADU be rented to a Section 8 voucher holder for at least five years. While these programs operate on the county or municipal level, either could serve as a model for a statewide program in Massachusetts.

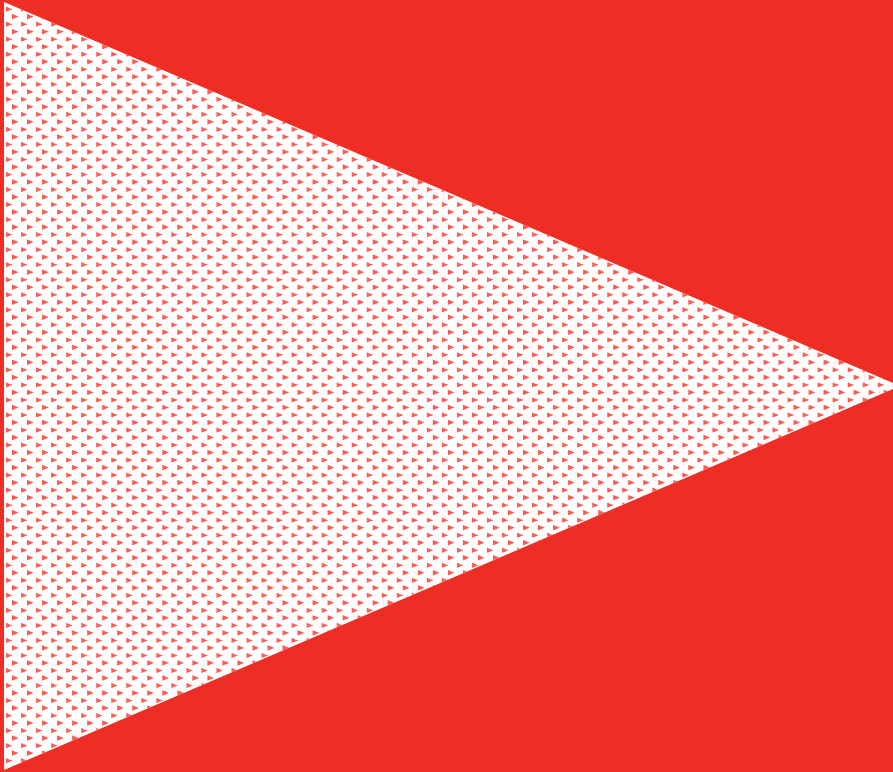
Action 3.2: Amend the requirements of Chapter 40R to increase the income diversity of homes within Smart Growth Overlay Districts. The 40R Smart Growth Overlay District program currently requires that at least 20 percent of units within the district be affordable to households earning 80 percent of AMI. However, some municipalities may be interested in offering affordability to a broader range of incomes to meet their local affordability goals and needs. In addition to the changes to 40R recommended in the Inclusive Growth & Mobility section of this plan, the state should consider offering an alternative path to meet affordability requirements that incorporates affordability for households earning 30 to 60 percent of AMI. To offset the cost of this deeper affordability, an alternative compliance path may need to balance the more deeply affordable units with moderate-income units (e.g., 10 percent of units affordable to 50 percent of AMI and 10 percent of units affordable to 100 percent of AMI). An affordability tier at 100 percent of AMI or greater should only be considered if it enables a tier of deeper affordability at 30 to 60 percent of AMI. As a first step, options under consideration should be analyzed to confirm they are financially feasible without public subsidy. Because one of the advantages of a 40R district is nimble, by-right development, any requirement that necessitates seeking Low-Income Housing Tax Credits or other scarce Affordable Housing production resources – which often take years to access – could be counterproductive to 40R program goals. Further changes to 40R are recommended in: “**Reduce vehicle miles traveled and the need for single-occupant vehicle travel and increase development in transit-oriented development and walkable centers**”.

Action 3.3: Utilize 40R, 40S, and other existing state programs as incentives to produce housing suited to first-time and first-generation homeowners.

Although the state's 40R program has been successfully implemented in many municipalities, its lower-density counterpart, the 40R Starter Home District, has never been adopted by a municipality. This may be due in part to the requirement that 50 percent of units in a Starter Home district be three-bedrooms, which may raise concerns about increased school enrollment in some municipalities. MAPC supports the program's goal of encouraging Affordable Housing for families and does not recommend reducing this requirement; rather, the state should consider more robust funding for 40S and should allocate resources for promoting the benefits of 40S (see Policy Action 2.3).

Another barrier to Starter Home implementation may be Greater Boston's extremely high land costs, which make it difficult for deed-restricted Affordable Housing to be financially feasible at the lower densities targeted in the Starter Home program. Even if sufficient density could be achieved, most lower-density developments are envisioned as homeownership projects, in which the 20 percent affordability requirement is more difficult to achieve than in rental projects. To make these projects more viable, the state should proactively align the Starter Home program with existing state homeownership resources. The state should make resources available for MassHousing and Massachusetts Housing Partnership (MHP) to actively connect municipalities considering Starter Home districts with state homeownership programs and experienced affordable homeownership developers. This would increase understanding of available resources to support the Starter Home program, and could be undertaken in concert with the recommendations to expand low-income homeownership opportunities in the **"Ensure that people of all races and income levels have equal access to affordable housing through homeownership and rental opportunities in every community"** recommendation.

Finally, any state efforts to enhance first-time and first-generation homeownership should seek to equitably balance individual wealth building with the need for scarce public resources to support long-term affordability, discussed more thoroughly in **"Enable wealth creation and intergenerational wealth transfer."**



Recommendation:
Accelerate the production of diverse housing types throughout the region, particularly deed-restricted Affordable Housing, with a focus on transit-oriented, climate resilient and other smart growth locations.

Strategy 1

Bolster local government’s ability to attract and retain a creative, adaptive, and diverse workforce for the long-term.

Local government must expand their Human Resources capacity to attract and retain a broader range of people from a diverse set of backgrounds. There is a wealth of talent in Greater Boston and there are job opportunities in municipal government for a range of educational backgrounds and skills. There is also an urgent need to address the lack of diversity within the municipal workforce. A 2020 MAPC report showed that the municipal workforce is older and whiter than the communities it serves and that a significant number of current municipal staff are expected to retire within the next 5-10 years.¹ While strategies to attract new staff will help address this shortfall in the short-term, cities and towns also need to consider long-term retention strategies so that new hires will feel welcome, supported, and able to achieve their professional goals within local government. Cities and towns are beginning to increase investments in Diversity, Equity, and Inclusion (DEI) in both external project work and within the workplace. In addition to supporting inclusive public process, DEI practices and policies are essential in order to sustain a workforce that is reflective of the diversity of the region. This challenge presents our region with a unique opportunity to embrace modern strategies to replenish the local government workforce with the skills and creativity that can meet future demands. While the nature of municipal government workplaces varies based on type of government, local leadership, resources, and other factors, there are some common actions cities and towns can pursue to begin to attract and retain new employees from all backgrounds. However, a true transformation of the local government workforce will take leadership at all levels of government and require the guidance and advisement of HR and DEI professionals.

¹ The Diversity Deficit: Municipal Employees in Metro Boston. <https://metrocommon.mapc.org/reports/14>.

- ▶ **Action 1.1: Create more effective pathways to local government.** Pathways to a career in municipal government are not well defined, and for many young professionals, infrequently traveled. Those less familiar with municipal government or those who do not see themselves reflected in the current local government workforce may be less likely to seek out or to pursue opportunities in local government. Municipal Human Resources departments should be more deliberate in publicizing the career opportunities available in local government to interest students and other job seekers, and should do special outreach to people of color.

Community colleges and other higher education institutions can play a significant role in helping to prepare young people for jobs in municipal government and can also work with local municipal leaders to advertise opportunities for municipal employment to students and graduates. Degree or certificate programs can help prepare young people for jobs in municipal government work, especially in high-need areas like municipal finance.

The Commonwealth should also create a paid programs through a partnership between local governments and higher education institutions. The structure of these programs could vary depending on the resources available and the nature of positions that need to be filled, but could include internships, externships, mentorship programs, and apprenticeships. A combination of state, local, and private funds could be used to support such programs, which would help to build lasting interest in municipal work. These programs could serve as a follow-on to efforts in K-12 schools that expose young residents to the many ways the local government helps to shape their community and what it means to work in public service.

- ▶ **Action 1.2 Modernize the municipal hiring process.** The municipal hiring process is highly inconsistent across the region. The highest performing private sector firms prioritize hiring and consider talent acquisition as fundamental to their success. In the municipal sector, broad recruitment, outreach, and advertising is often not a top priority and many cities and towns do not have enough money in their budgets to have full time Human Resources staff.

It can be difficult for non-local job seekers and those with more limited knowledge of careers in local government to find out about municipal openings and this contributes to the lack of diversity among applicants. Many municipalities rely on various professional organizations to list job opportunities, but those postings are typically accessed locally by other municipal workers or lost in a sea of other nationwide postings. In a competitive job market, municipal government needs to be creative in how it reaches and attracts preferred candidates.

Municipalities should have an obligation to hire a workforce that represents the diversity of the region's residents. Modernizing municipal hiring practices should include the adoption of comprehensive hiring plans with a focus on diversity, and should evaluate current residency requirements that are in place in many municipalities across our region. This must also include what DEI strategies will be pursued in order to retain a diverse

workforce. As cities and towns start to implement these plans and evaluate their efforts, they improve transparency and progress.

- ▶ **Action 1.3: Provide competitive, flexible benefits that are valued by today's job seekers.** One of the largest fiscal challenges facing state and local government is unfunded pension and healthcare liabilities for retirees. Massachusetts's unfunded actuarial accrued liability (UAAL) at the state and local level is predicted to outgrow new tax revenue over the next 10 years². Benefit and compensation levels have also not always kept pace with other sectors. This can constrain a municipality's ability to offer competitive benefits to new hires and, in turn, hire the most qualified applicants for open positions.

Most local government agencies have defined benefit retirement packages (pensions) that require decades of service to fully vest. Today's young professionals change positions or employers more frequently than previous generations, reducing the appeal of a pension plan for some younger workers. Flexible retirement benefits that can be easily transferred or taken upon the end of employment are more valued by some young professionals.

Our region's local governments have dozens of different retirement plans. Local autonomy over retirement plans is valued by local leaders and for local unions, but this comes at a price as individual plans can have a higher overhead rate and, at times, worse performance. The Massachusetts State Employees Retirement System (MSERS) retirement is available to all municipalities and, with its size, is able to capitalize on lower non-investment costs. It also allows state/municipal employees to move within Massachusetts public service and continue to accrue the benefits. This greater flexibility could provide a greater incentive for younger workers to consider government service and to stay within the public sector in Massachusetts. To conquer the large growing amount of unfunded pension liability and to provide greater flexibility for our region's public servants, municipalities should consider consolidating their individual pension plans and joining MSERS.

In addition to more flexible retirement benefits, as we have learned during the pandemic, many state and local government positions can be performed effectively from home, an example of one type of flexible work option that is highly valued by younger professionals. Additional policies that should be examined include parental leave policies, flexible sick and vacation time, professional development opportunities, and even commuting benefits. It should be noted that benefits are a mandatory subject for bargaining, and these negotiations can be challenging for cities and towns. Municipalities should work together to identify strategies for maneuvering in an unionized environment to implement these policy changes.

- ▶ **Action 1.4: Increase resources available to cities and towns to establish formal HR departments and attract and retain a more diverse workforce.** Local government is often less likely to implement modern and progressive workplace policies. Local governments need to adopt a culture of continuous improvement and allow their employees to enjoy the benefits of

² The Bay State's Public-Pension Complex: Costly and Unaccountable. Atanasov, PhD with Gregory Sullivan. White Paper No. 168. April 2017. Pioneer Institute.

the modern workplace. This includes fostering a welcoming and inclusive workplace culture. Evaluating, implementing, and proactively improving municipal workplace policies is a critical, yet under-resourced activity for many of region's municipalities, especially for smaller towns. In many small municipal governments, there is no budget for dedicated HR staff, and the Town Manager/Administrator is the lead Human Resources Officer. With the vast responsibilities that a Town Manager already possesses, implementing proactive HR strategies and creating an environment of growth is just one of many competing priorities.

The Commonwealth should establish dedicated resources to support municipalities' efforts to attract and retain a larger and more diverse workforce. First, this should include making resources available to cities and towns that need to establish dedicated HR departments so local governments are able to devise the workforce attraction and retention strategies that are most suitable for their municipalities and workplace culture. In some circumstances, for smaller communities, it may make sense for these departments to serve multiple municipalities. The Commonwealth should also identify an entity to provide cities and towns with guidance on how to attract and retain a diverse workforce through a comprehensive DEI strategy and hiring plan (see Action 1.2). This could include communities of practice for municipal HR professionals to share best practices and identify opportunities for collaboration.

Strategy 2

Invest in information technology (IT) infrastructure to expand service offerings and enable communities to use and share data more effectively.

The use and application of data and information technology tools ranges widely across local government. While this can, in some instances, lead to innovation, many communities across our region have little or no IT staff and are far behind where they should be for IT implementation and deployment. As the importance of IT in providing high-quality public services grows, these inequities should be remedied to enable the whole sector to become more effective and efficient. We must address staff challenges, develop long-term plans for IT investment, and enable IT implementation.

- ▶ **Action 2.1: Establish high speed, publicly owned internet services for municipalities.** Massachusetts is behind the curve in terms of our investment and organization of our physical fiber network. Compared to our neighbors like Connecticut and Rhode Island, our municipalities and schools do not have access to publicly owned high-speed internet. The State of Connecticut established the Connecticut Education Network and over the last 20 years has provided funding and other benefits to connect to the 'Nutmeg Network'. Municipal Government, Higher Education, Public and Private K-12, Libraries, State, and now private business partners have access to

low cost, public internet. Because of this investment, many Connecticut municipalities are better positioned to expand tech tools and improve the way municipal business is conducted.

To ensure that all municipalities and school districts have sufficient IT resources and infrastructure, the Commonwealth of Massachusetts needs to take a leadership role and invest in a high-performance public network. The infrastructure can be leveraged to expand services to communities not served by high performing or affordable internet. For more recommendations on expanding digital accessibility, please see Action 1.3 in **“Make government more participatory and inclusive”**

► **Action 2.2: Create more partnerships and platforms for IT knowledge, sharing, and collaboration.** Local governments are often on their own in determining their IT strategy and direction. Many small municipalities do not have the resources to hire an internal IT staff that can strategically manage their IT infrastructure or expand IT offerings to their residents. Some rely on volunteers while others use expensive managed IT service contracts with third party vendors. These managed IT services vary drastically in quality and can often leave a town with little control over their own IT assets. During the COVID-19 crisis, we saw that the lack of IT knowledge and capacity created impediments to some municipalities’ disaster response efforts. While some towns were well positioned to handle the change to remote working, many others were unable to effectively work from home.

Local government IT professionals and municipal leaders should partner more regularly to explore IT options and learn from each other about what works and what does not. They should share information on the costs of IT services, the performance of vendors, and the value of different tools. This information sharing could be facilitated by neutral parties that do not have a stake in the selection or deployment of certain solutions. Shared platforms for municipal officials to find information on IT costs, performance and value should also be created to help them make informed choices on IT. The Executive Office of Technology Services and Security should consider providing these opportunities for coordination and collaboration for cities and towns.

The lack of resources and IT knowledge continues to severely limit many municipalities’ ability to meet resident needs. Unmet IT needs extend beyond the capacity for towns to support resident-focused tools and enhanced levels of service.

The Commonwealth has offered various grants to expand tech tools and IT spending, but these yearly funds are not enough to support long term infrastructure and staffing needs. The state should leverage new federal recovery funds to prioritize IT investments, and should also encourage

regional efforts where smaller towns partner with larger municipalities to bolster their IT services.

- ▶ **Action 2.3: Move towards a collaborative open-source software procurement model.** Many core government functions rely on expensive and proprietary software platforms that are not easy to reconfigure as municipal needs change. These products come with long-term contracts and significant licensing and maintenance fees.

An alternative to being locked into such products would be to create more open-source software solutions that communities could more readily adapt to their needs. Open-source platforms would allow communities or groups of cities and towns to work together to configure solutions over time and could be built around common standards to enable comparative data analysis. Cities and towns would need support from entities that could help them rewrite the software and could potentially share staff with such skills. Using open-source platforms would enable smaller evolutions of the platforms on a project-by-project basis and innovations could be shared between cities and towns without purchase of costly licenses or unnecessary features.

- ▶ **Action 2.4 Create data standards for municipal departments and functions.** Municipalities capture and report a lot of similar information, but do not use common conventions and descriptions. This makes comparing data and information between communities very difficult. With a strong standardization effort, state entities and municipal governments would be better able to make more informed decisions to address upcoming challenges in an everchanging and increasingly complex world.

The Commonwealth of Massachusetts has attempted to collect standardized municipal budget and revenue data through the Department of Revenue's Division of Local Services (DLS) Schedule A submissions. Each fiscal year municipalities are required to self-report financial information for review. Municipalities self-report their expenses in 54 categories and each category is divided into 4 different expense types. While useful, the information DLS collects is self-reported and municipalities categorize expenses in different ways. This makes it hard to use the data to compare costs and services effectively. Clear data standards for the provision of budget, purchasing, and expense information could address this issue and unlock opportunities for collaboration and service improvement.

The Massachusetts Legislature should create the Office of Data Standards to identify data standardization opportunities and create resources for state government and municipal data standardization. Developing standards for municipal departments to follow in areas such as finance, purchasing, public safety, public works, and planning would aid efforts to assess best practices and evaluate the effectiveness of service provision. Clearer and more standardized municipal data would also allow residents to better understand the services they receive and to participate more knowledgeably in local government activities. With a consistent data standard that is also

- ▶ publicly accessible, residents and third parties could access and organize data effectively and increase government transparency.

Action 2.5: Examine whether privatized services offer good value by comparing performance and cost information across municipal governments.

One of the ways to help local government improve quality of services would be to get a better understanding of how the different services are provided across municipalities. In order to undertake this analysis, the state would need to develop common benchmarks and metrics for evaluation in certain core service areas. In order to understand the relative value of a particular service, cities and towns should weigh the cost of service delivery against the performance of the service.

Local governments should especially do a cost-benefit analysis of those services they have privatized, such as waste collection. Privatization might ultimately prove more costly than building municipal capacity to provide the service in-house. Private services may also not be as accountable to local residents or employ local residents. Municipalities and other government entities have expanded efforts to quantify and showcase the level of service that they provide their residents.

Strategy 3

Catalyze creative collaboration, problem solving, and partnerships within and between municipalities and with other sectors.

Local governments cannot provide all of the services required by their residents, such as anti-poverty programs, public health, and housing stability. Within a city or town, departments can work across boundaries to solve complex problems and rethink who and how they deliver services to address underlying issues and develop solutions for the long-term. Local governments can learn from each other and bring together and lead cross-sectoral coalitions with private and non-profit entities to provide more seamless delivery of services. Creative collaboration is especially needed in areas like health and human services and economic development, where local governments should play a central role in commissioning services from appropriate entities and building the capacity of community-based organizations working with residents to offer services in new and creative ways. Incentives and funding should be directed to local governments (and as professional development to staff) so they can serve in this convening and commissioning role effectively.

- ▶ **Action 3.1: Break down silos within municipal governments.** Like many tiers of government, local government is siloed around fixed and long-structured departments with prescribed and, in some cases, statutory responsibilities. While this enables professionalization and consistency, it does not always lend itself to creative problem solving on issues that no single agency or staff person can possibly resolve themselves. Issues around health, social-economic opportunity, equity, arts and cultural development, environmental resilience, and sustainability are just some of the complex issues that communities are grappling with that require holistic cross-departmental approaches.

While maintaining core expertise, local governments need to hire for, train, and expect staff to be more able and willing to work across silos. Skills in coordination, facilitation, and engagement are particularly needed. Local governments should seek assistance in building their capacity to work in this manner and make it a priority for professional development and technical assistance.

▶ **Action 3.2: Encourage shared learning and inter-municipal partnerships.**

Often the most effective way for local governments to become more creative and adaptable is for them to work together to find solutions. This does not mean they always need to adopt the same solution in each community, but that they work together to explore and compare different approaches and results. This happens in many ways across local government now, whether through professional and membership organizations, or coalitions established around certain grants or programs. However, not all communities invest the same amount of time and resources in such partnerships.

The Commonwealth, professional organizations, regional planning agencies, and other relevant entities should all explore how to build and encourage stronger sub-regional partnerships around the critical issues and challenges facing local governments. Grant programs are often a catalyst for collaboration and partnership between local governments, especially in areas such as public health where grants often require multi-community applications and coalitions to be involved. This model of grantmaking should be expanded to new areas to encourage collaboration, learning, and more impactful results.

▶ **Action 3.3: Direct and commission private and non-profit actors to support municipal priorities.**

Local governments stand at the center of their communities, understand their residents needs, and are more accountable to residents than other levels of government. Even in areas where local government may not offer services directly, such as clinical mental health services, they can play a vital role in commissioning private non-profit, and in some cases for-profit, providers to furnish such services and work alongside municipal officials in supporting residents.

Every community is served by community-based organizations that improve the quality of life for residents. In some cases, municipal leadership or staff do not know the community-based resources available. Local governments should ensure that they understand their community-based assets, inventorying their community-based capacity and considering whether they are underserved in certain areas. This is especially true with health and social services, where communities may be served by a number of organizations but have no relationship with them. Municipal leaders and officials should build relationships with local organization leaders in these sectors, and work to understand how partnerships can be created.

Where communities lack significant community-based capacity, they should work to grow this sector. In some cases, community-based organizations could expand their geographic area of interest. To help

cultivate community-based organizations, municipal staff should prioritize developing community partnerships and commissioning their services, which could also build the capacity of the community-based organizations.

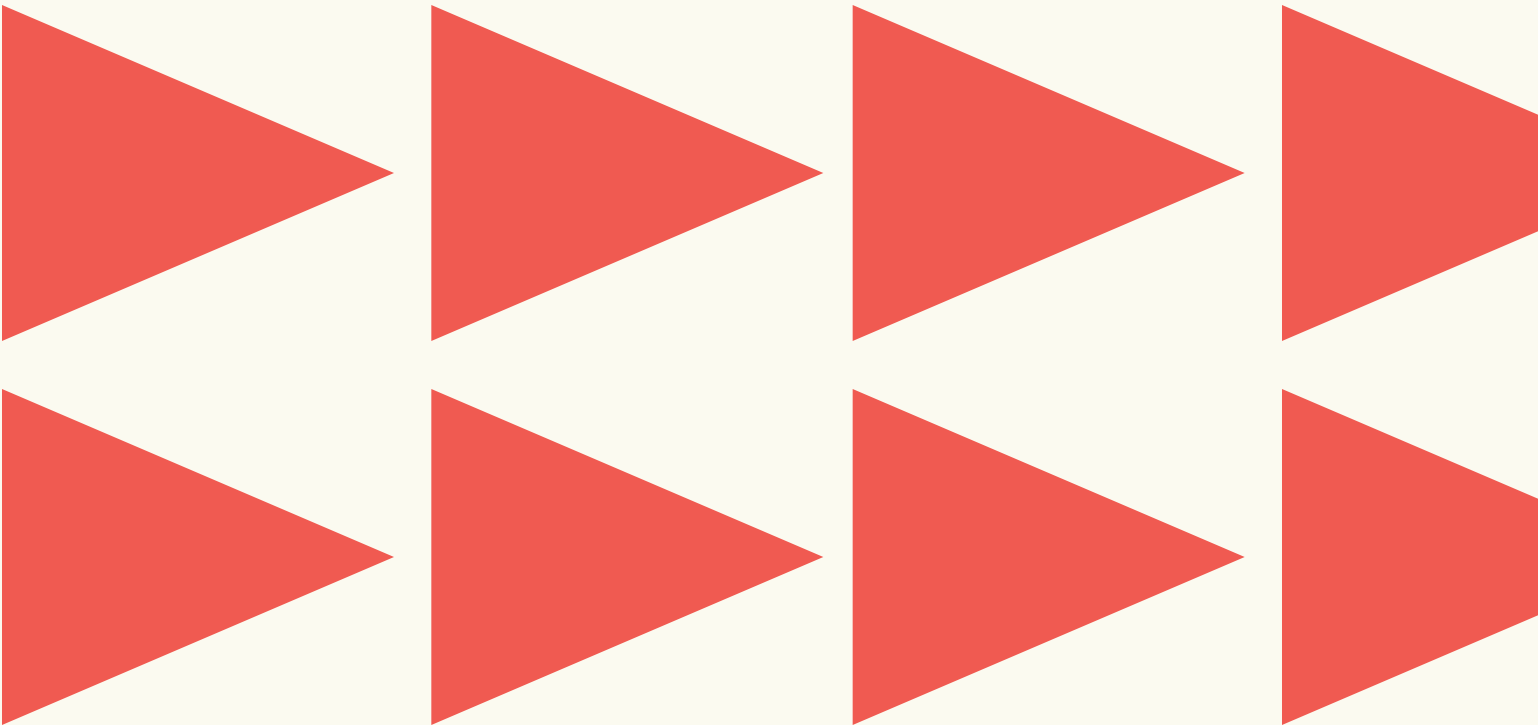
- ▶ **Action 3.4 Enable inter-municipal collaboration to build capacity.** There are several areas of local government that are critically and regularly under-resourced, such as health and human services, energy and climate, or arts and culture. Municipalities often cannot afford to build capacity on their own but could pool resources to support each other.

The Commonwealth of Massachusetts should allocate adequate funds and create financial incentives for new service sharing agreements. Previously funded municipal sharing efforts in public health and public safety were under-resourced. Moving forward, most, if not all grant programs to local governments should make regional partnership a key objective and criterion and offer longer-term funding to enable long-term collaboration to take place. By allocating funds and creating financial incentives for municipalities to create new service sharing agreements, the Commonwealth of Massachusetts would stimulate conversations between municipalities and act as a catalyst for greater collaboration.

Expand and improve the way we finance
local and regional government



Photo Credit: Jon Taylor, Flickr CC 2.0



Recommendation: Expand and improve the way we finance local and regional government

Strategy 1

Ensure sufficiency & resiliency of revenue to meet local and regional needs.

In spring of 2021, Congress passed the American Rescue Plan Act (ARPA), which included substantial local recovery funding. This money represents a once-in-a-generation opportunity to make investments that can help repair and rebuild our economy and support those individuals and communities that were most deeply impacted by the COVID-19 pandemic. But even with these critical recovery dollars, the state and our municipalities will, over time, face significant gaps in funding needed to reach our region's long-term goals. We must find new, stable sources of revenue that can help meet our operating and capital needs.

As we think about new revenue sources, it is important to remember that the reliability and resiliency of revenue vary depending on the source. Property and income taxes tend to be fairly stable, although climate change and sea-level rise and its impact on coastal development could threaten property taxes over the longer term. The economic fallout from the pandemic dramatically reduced receipts from hotel, meals, and rental car taxes, although we expect these to recover as the pandemic recedes. Moving to steadier and more predictable revenue sources over the long term is necessary to provide stable, efficient, and effective municipal government and municipal services.

- ▶ **Action 1.1. Contain rapidly growing fixed costs to enable funding for high quality services.** Municipalities face significant fiscal pressures driven in part by the age of its workforce, the number of retirees, and longer life expectancies, which have increased high-growth fixed costs such as health insurance and pensions. Regular growth in the costs of covering public employees is another driving factors. Taken together, these costs consume an increasing share of local budgets, which in turn decreases the amount of funds available for meeting other local priorities. Further reining in rising healthcare costs, primarily through reforms at the state level, while maintaining high-quality health insurance for all municipal employees, would provide municipal and state budget relief.

Some of the highest costs for cities and towns occur in public safety contracts. Potential reforms, particularly around line-of-duty rules and disability retirements require further research and investigation. Similarly, rules governing binding arbitration through the Joint Labor Management Committee should be considered. The current standard measures a municipality's "ability-to-pay," but it does not take into account other municipal spending pressures and therefore often compels cutbacks in other areas. A municipal legislative body has the ability to reject an arbitrator's award, but this rarely happens. Current law forbids a municipal chief elected official from even recommending against a settlement, a limitation that should also be revised.

- ▶ **Action 1.2. Provide more flexibility to help municipalities weather economic downturns.** One-time federal relief payments will help create local budget stability in FY22 and FY23, especially as cities and towns try to address economic downturns that occurred as a result of COVID-19. However, over the long-term, cities and towns need to be able to plan for unmet needs and future economic upheaval. Three actions would provide greater flexibility and resiliency for municipal budgets in future downturns: increased flexibility around Proposition 2½; the establishment of a state aid stabilization fund for Unrestricted General Government Aid (UGGA); and more flexibility for short-term financing.

Proposition 2½ significantly restricts growth in a municipality's ability to raise tax assessments year over year, preventing cities and towns from providing needed services. As discussed above, some costs, such as health insurance and pension liabilities, rise much faster than 2.5% annually. Moving some costs outside the limit of Proposition 2½ would provide much greater flexibility to meet local needs.

Some municipalities rely heavily on state aid as major portions of their budgets. While this is not a problem in a strong economy, this has a disproportionate impact on those communities with greater reliance on state aid during downturns. This generally includes some of the most economically challenged communities in the state, where residents have a high dependence on local services. The state should create a stabilization fund that steers ten percent of any increase in Unrestricted General Government Aid into the fund, to be used to reduce the pain of cuts made to local aid during economic downturns. The Division of Local Services could establish criteria that would automatically direct stabilization funds to municipalities when certain reduction thresholds are triggered. While the state currently has a "rainy day" fund, allocation of those resources is at the discretion of the Legislature and Governor, unlike how this stabilization fund would work.

During economic downturns, such as the 2008 recession and the 2020 COVID-19 lockdowns, municipalities were exposed to fiscal losses they could not plan for and that forced cutbacks in needed services. While the Legislature has granted cities and towns limited powers to borrow additional short-term funds to help manage cash flow challenges, and has

also allowed certain mandated payments (e.g., pension payments) to be delayed or spread over longer cycles during a downturn, waiting to legislate such changes until after a crisis has occurred is inefficient and damaging to local finances. The Commonwealth should therefore consider making such powers permanent and should make a range of short-term financing options available to cities and towns if certain economic triggers, such as unemployment increases, are met. The Commonwealth should build upon the relief made available through the American Rescue Plan Act and create tools that give cities and towns assistance immediately after a crisis emerges.

- ▶ **Action 1.3. Diversify local revenue sources.** Cities and towns need more options to raise money locally to invest in local economies. Many of Greater Boston’s communities have an overwhelming reliance on local property taxes to fund municipal operations. In 2019, property taxes comprised nearly 64 percent of total tax receipts to cities and towns.¹ While generally a fairly stable source of revenue, the property tax is vulnerable to long-term threats posed by the impacts of climate change, particularly in coastal communities. It is also a highly regressive source of revenue. Property taxes can be a significant burden to low-income homeowners and renters – while households with the highest one percent of incomes on average pay about three percent of their total income on property and commercial taxes, those with the lowest incomes tend to pay around five percent of their income on property taxes.² This also contributes to wide disparities in public school funding. Taking state aid into account, the wealthiest 20 percent of local school districts on average spent \$5,000 more per pupil than the least wealthy 20 percent of districts.³

Alternative revenue sources like increasing the income, capital gains, and corporate income taxes are discussed in “Enable wealth creation and intergenerational wealth transfer”. The Legislature should pass legislation that would allow cities and towns to create a local option for revenue measures, including some of the following revenue mechanisms: a local option parking tax, district-based taxation, value capture mechanisms, increasing the real estate transfer fee and deeds fee, increasing local vehicle registration fees, and the ability to use regional ballot initiatives to fund a variety of local or regional transportation investments. Across the country, many local projects are funded by locally raised money, but Massachusetts does not have this option, and instead requires individual municipalities to file a home rule petition to raise local taxes and fees, a lengthy and difficult process with a low rate of success. If the Legislature allowed more local option fees and taxes, it would help to diversify revenue sources for cities and towns.

1 https://archive.massbudget.org/report_window.php?loc=MA-Property-Taxes.html#foot-note-5.

2 <https://www.massbudget.org/reports/pdf/PropTaxes-COVID19-6.30.pdf>.

3 <https://massbudget.org/reports/pdf/MassBudget%20Chapter%2070%20Reform%20Paper%202018%20Final.pdf>.

Strategy 2

Provide new revenue and investment for climate, housing, and transportation capital infrastructure.

To meet our 2030 and 2050 climate goals, significant investments will be needed to modernize, electrify, and protect our public transportation system, as well as to build sufficient and climate-resilient affordable housing. We do not presently have enough dedicated revenue to address these needs.

- ▶ **Action 2.1 Create a regional Climate Infrastructure Bank.** Building the electric infrastructure needed to reduce greenhouse gas (GHG) emissions and ensuring that our transportation system, utility infrastructure, and neighborhoods are prepared for the impacts of climate change will require massive investments. A regional Climate Infrastructure Bank that can raise funds and prioritize investments across our region could lead this effort. Governance of such an entity should include state and municipal representatives, along with membership from communities that are most affected by climate change, including communities of color that have been disproportionately and systemically impacted by the effects of climate change. A Climate Infrastructure Bank could raise revenue in a variety of ways, though perhaps the most promising is through a carbon tax, which could be collected as a traditional gasoline tax, or at the wholesale level, as proposed in the Transportation and Climate Initiative.⁴ Other sources could include one or more of the following: per-capita municipal assessments, impervious surface fees, or greenfield development fees.
- ▶ **Action 2.2 Adopt the HERO (Housing and Environmental Revenue Opportunity) tax.** The Legislature is currently considering a proposal that would increase the real estate excise tax by doubling the current rate. This proposal, known as the Housing and Environmental Revenue Opportunity (HERO) proposal, would raise the Massachusetts rate to 9.12 percent and could generate \$300M per year that would be split between affordable housing and climate investments. A coalition of housing and environmental advocates are supporting this legislation in the 2021-22 session. H.2890 (Representative Nika Elugardo) and S.1853 (Senator Jamie Eldridge) have been filed in the current session.
- ▶ **Action 2.3 Create an affordable residential development circuit breaker.** Opponents of residential and mixed-use development often argue that the new local revenues retained by the host municipality do not cover the increased costs of providing municipal services to the development. To answer this question, the Public Policy Center at UMass Dartmouth conducted a study of six mixed-income residential projects, which showed that three out of the six projects generated enough municipal tax revenue to cover the costs of their municipal services.⁵

⁴ <https://www.transportationand-climate.org/final-mou-122020>.

⁵ The Costs and Hidden Benefits of New Housing Development in Massachusetts.” Goodman, Korejwa, Wright. March 2016.

This work, supported by the Mass Housing Partnership, showed that when the new state receipts – such as from the sales and income taxes generated by the developments – were included, the new developments all generated

positive revenues. In aggregate the study concluded that municipal shortfalls could be covered by less than a third of the new state receipts. Building in a “circuit breaker” that would allow some portion of new state revenues generated from a new affordable or mixed-income development to be retained by the host municipality would ensure that development impacts are fully covered. It would also remove the objection that new development doesn’t pay for itself. Another option could be to use one half of the circuit breaker funds to mitigate local impacts and to allocate the other half to a body such as the Climate Infrastructure Bank, which would be better poised to address regional needs.

Strategy 3

Shift revenue generation and investment to provide greater fairness in funding and more equitable outcomes.

Many of our state-level revenue sources, formulas for allocating funding, and grant program criteria do not incorporate equity as a fundamental objective or guiding principle. Our existing revenue-raising mechanisms place greater financial burdens on lower-income households and individuals, causing them to pay a greater share of their incomes as taxes. Some state and federal resource allocations prioritize population size or other factors over demonstrated need. We should rebalance how we raise and invest resources for a more progressive impact and to steer greater resources to communities and populations that could benefit the most from enhanced investments and to those communities and populations that have historic and systemic disinvestment. Additional ideas for creating a more progressive tax code and providing more opportunities for intergenerational wealth transfer are contained in “Enable wealth creation and intergenerational wealth transfer.”

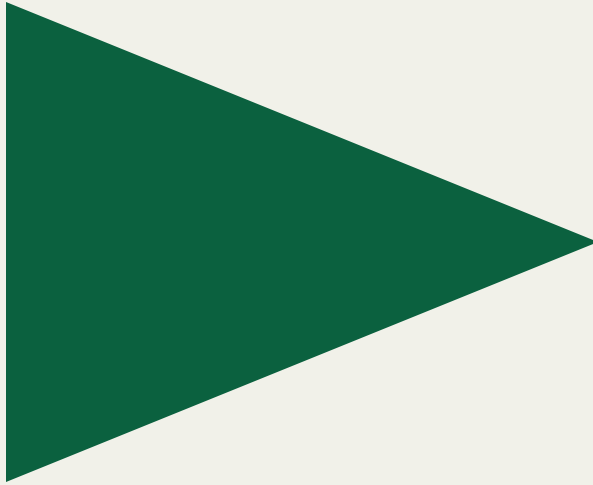
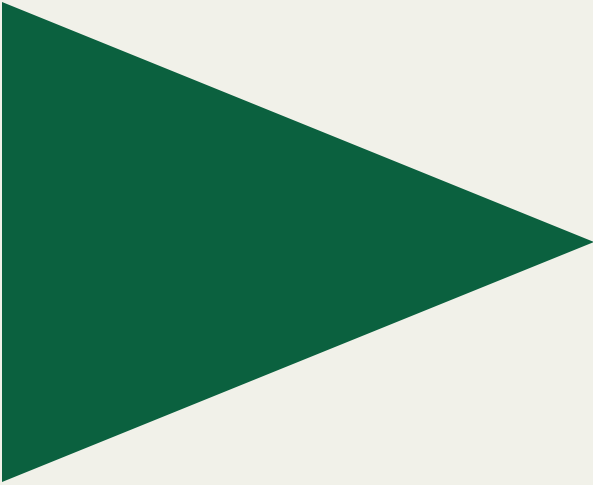
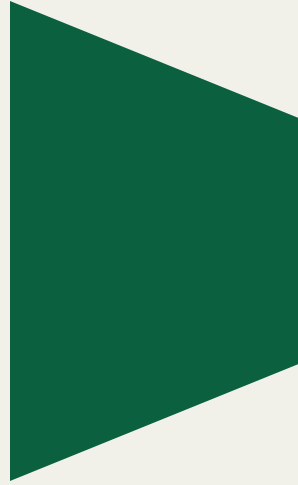
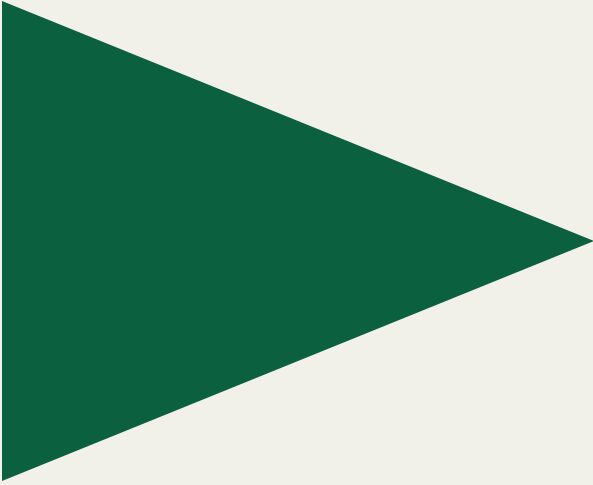
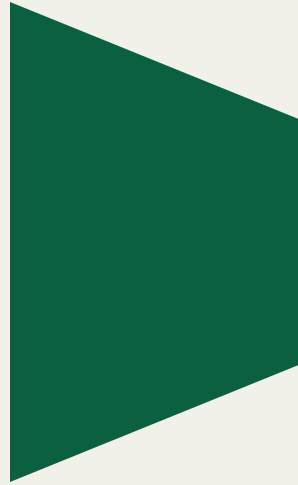
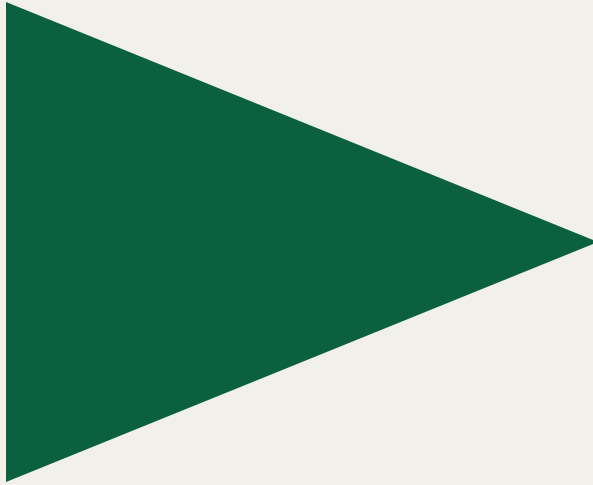
- ▶ **Action 3.1. Make the sales tax more progressive.** The Massachusetts sales tax is inherently regressive because lower income individuals use a greater share of their income to pay the flat 6.25 percent applied to the goods subject to the sales tax. To reduce the burden on lower-income residents, the sales tax could be broadened to apply to services. The exemptions on certain goods could be expanded and we could simultaneously reduce the tax rate applied to certain goods. These changes could be done in a revenue-neutral way so that the impact on our overall sales tax revenue does not decrease.
- ▶ **Action 3.2. Fully fund the Student Opportunity Act (Chapter 132 of the Acts of 2019).** The Student Opportunity Act was passed into law in 2019. It directs additional resources to close the education outcomes found by race, in economically disadvantaged communities compared to higher income communities, for English Language Learners, and for children with disabilities. This landmark legislation has the potential to improve outcomes for K-12 students dramatically, but funding must be identified and allocated each year, and the first year of funding was rolled back due to the COVID pandemic. The Legislature included an additional \$220 million in the FY22 budget, fully funding the first year of the law. Advocates, however,

believe because they are using lower enrollment numbers, an additional \$90M is needed for full funding. In 2021, the Legislature created a \$350 million Student Opportunity Act Investment Fund, designed to function as a reserve fund. The use of American Rescue Plan Act (ARPA) funds could help meet short-term needs, and new funding that might be provided by the Fair Share Amendment, should it pass, could provide the long-term dedicated revenue required to reach the full promise of the Student Opportunity Act. The Commonwealth should pursue additional ideas to promote more equitable educational funding, including increasing investments for English language learners and special education.

- ▶ **Action 3.3. Review federal and state funding formulas and grants for ways to improve equity.** Many state and federal funding formulas were established generations ago without a fundamental emphasis on directing resources to where they are most needed or to advance equity. One recent example was the federal allocation of the American Rescue Plan Act funds to municipalities following the Community Development Block Grant (CDBG) formula. This resulted in inadequate allocations to several communities greatly impacted by COVID-19 that are home to high percentages of people of color, low-income residents, and immigrants. In many cases, these communities received much lower funding amounts than relatively higher-income communities. The Baker Administration was able to make these communities “whole” through additional allocation of state-controlled resources. However, reviewing federal formulas like CDBG and state formulas like Unrestricted General Government Aid (UGGA) and grant programs, such as MassWorks, will likely uncover opportunities to prioritize resource allocation in communities that have suffered because of systemic disinvestment and underinvestment.
- ▶ **Action 3.4. Research disparities by race and ethnicity in the impact and administration of the property tax.** The property tax has historically been a fairly stable and consistent source of revenue for municipal operations, but there have been long-standing concerns about the disparities in the impact on lower income neighborhoods and on racial and ethnic minorities. Recent research indicates that assessing practices including valuation and the granting of tax abatements may have disparate impacts based on race and ethnicity.^{6,7} Further research is needed to explore potential disparities in assessing practices and to recommend reforms.

6 The Assessment Gap: Racial Inequalities in Property Taxation. Avenancio-Leon and Howard. Opportunity and Inclusive Growth Institute, Federal Reserve Bank of Minneapolis. July 2020.

7 Property Tax Limitations and Racial Inequality in Effective Tax Rates. Martin and Beck. Critical Sociology. 2017 Vol. 43(2)).



Recommendation: Ensure land preservation, conservation, and access to recreational spaces

Strategy 1

Use new and existing tools to increase financial support for acquisition and development of open space.

From urban tot-lots and active recreational sites to rural wildlife habitat, farms, and groundwater protection zones, open spaces serve a range of environmental, economic, and recreational functions. Acquiring, improving, and preserving open space is chronically underfunded, with limited dedicated revenue streams available. Increased financial support is critical to preserving habitats and farmlands before they are irrevocably lost to development. It is similarly critical to provide adequate recreational resources to support the region's growing population, and to do so in ways that recognize the needs of lower-income communities where open space is often most limited.

- ▶ **Action 1.1: Increase the state match to the local Community Preservation Act (CPA) funds to 50 percent.** Community Preservation funds are used to preserve open space and historical sites, create affordable housing, and expand outdoor recreation facilities. Currently, 186 Massachusetts municipalities have adopted the CPA. The Commonwealth uses proceeds from a fee on transactions at the Registries of Deeds to provide a match to these locally raised dollars. In the early years of CPA, that match commonly reached 100 percent, but it has declined for years. Even a recent increase in the Registry of Deeds fee has only increased the match to approximately 32.3 percent, due partially to overwhelming support for the CPA. Its adoption by voters in more and more cities and towns means state matching funds must be split more ways. With so many worthy projects, both local and state match dollars are often quickly exhausted. To meet demand for CPA projects and ensure more funding for open space preservation, the Commonwealth should identify a stable funding source that would allow it to ratchet up its funding match to 50 percent. Possible revenue sources could include an increase to deeds fees or an additional state tax on outdoor sports and recreation equipment. In addition to encouraging cities and towns to adopt the CPA, the Commonwealth should also regularly renew bond authorization for programs designed to provide funding for state and municipal efforts to acquire open space, protect natural resources, and improve and expand parks and recreational facilities, especially in Gateway Cities, such as the Gateway City Parks Program. For additional

recommendations related to CPA, please see Action 2.2 in “**Accelerate the production of diverse housing types throughout the region, particularly deed-restricted Affordable Housing, with a focus on transit-oriented, climate resilient and other smart growth locations.**”

- ▶ **Action 1.2: Create a new dedicated funding stream for open space acquisition, improvement, and preservation.** In addition to expanding CPA funding, the Commonwealth should also identify new dedicated revenue streams to support its acquisition, improvement, and preservation of open space. This include exploring the use of a recreational equipment/sporting goods sales tax to support additional acquisition and redevelopment funds for parks. The Commonwealth should also support innovative and alternative means of funding open space, such as linkage fees related to new development within a municipality.
- ▶ **Action 1.3: Encourage municipalities to establish dedicated funds for investment in park and recreation facilities to ensure that they provide safe and well-maintained fields and equipment for people of all ages and abilities to enjoy.** A number of municipalities plan for park and recreation facility improvements through a Capital Improvement Plan that identifies projects typically over a five-year horizon. One way to fund these improvements can be from yearly, specifically earmarked appropriations. Additionally, registration fees for local recreational programs are used to generate revenue for facility improvements and to cover basic maintenance expenses. Cities and towns should continue to explore innovative ways to create dedicated funding streams to sustain these investments.
- ▶ **Action 1.4: State grants programs should prioritize municipal applications that optimize parks to serve multiple uses and maximize co-benefits.** Parks, open space, and outdoor recreation areas provide a range of benefits to local residents. These amenities are not only important for preserving our natural habitat and promoting climate change resiliency, but also serve as a venue for walking, biking, and other forms of outdoor recreation, offering a range of physical and mental health benefits. State grant programs that support the development of parks and other outdoor recreation areas should prioritize applications that maximize the co-benefits these amenities offer. This could include ensuring children’s splash pads and other outdoor cooling areas have ample tree coverage and other shade features, for example. Communities experiencing public health disparities, the challenges of climate change resilience and increased pressure around land development should also receive priority. Where appropriate, the Commonwealth should also prioritize efforts that coordinate with local urban garden programs to promote healthy food access, as well as efforts to promote commercial activity (outdoor vending and dining, farmer’s markets, etc.) in outdoor spaces. State grants for open space protection, including any future re-greening funds from a No-Net-Loss program, should emphasize ecosystem connectivity whenever possible.

Strategy 2

Promote innovative methods for protecting open spaces (from neighborhood parks to regionally significant preserves) while also providing for the region's housing needs.

While the Commonwealth is facing a significant shortage of housing options (particularly affordable housing in walkable, transit-oriented locations), there is also a need to ensure we are preserving open space, outdoor recreation areas, and other land not suitable for development. Housing development does not need to conflict with land conservation. The Commonwealth and cities and towns should implement strategies for protecting open space while maintaining housing production goals. A more concerted and coordinated effort to pursue these goals will help ensure thoughtful use of land, less car-oriented development, and a more resilient climate.

- ▶ **Action 2.1: Facilitate the use of transfer of development rights.** Transfer of Development Rights (TDR), used effectively in other states to promote smart-location housing as well as preservation of open spaces, is a currently underutilized tool that should be promoted in shaping future development of the region. The Executive Office of Energy and Environmental Affairs (EEA) should finalize regulations needed for successful implementation of TDR in the Commonwealth. EEA should also secure funding to capitalize and implement the TDR Loan Program, which would support the use of TDR by moderating the issue of timing of development and willing sellers of development rights (i.e., the lack of willing sellers when a developer wishes to buy, or the lack of developers interested in buying when a farmer needs to sell some rights). The implementation of TDR could be supported through intra- and inter-municipal TDR opportunities, and EEA could facilitate the necessary financial recommendations for inter-municipal transfers. For example, EEA could fund preparation of model intermunicipal TDR bylaws, including potential tax-base sharing agreements.
- ▶ **Action 2.2: Cities and towns should adopt local zoning that enables strategic open space preservation and supports cluster housing development.** Zoning is a powerful tool that can support a precise, nuanced approach to balancing housing production and open space preservation. Municipalities should adopt innovative zoning and design criteria that enable establishment of small neighborhood parks or open space plazas as part of developments. Furthermore, cities and towns should allow several developments to consolidate open space on one parcel to maximize effectiveness. Open Space Residential Design and cluster subdivision should also be adopted as a by-right development type, and conventional subdivisions should be subject to special permit. Cities and towns should also promote more dense land use development options (e.g., higher density transit oriented developments (TOD), cottage clusters, etc.) to support developments that occupy less land area per dwelling unit, thereby creating new opportunities for land preservation and recreation.

- ▶ **Action 2.3: The Commonwealth's infrastructure funding should prioritize investments that enable denser growth in village centers and other smart growth locations.** Particularly in suburban communities, adequate availability of sufficient stormwater and wastewater infrastructure is often cited as a barrier to development. This not only stymies housing production in areas otherwise typically suitable for reasonably dense development, but also indirectly encourages development that impacts farms, woodlands, and wildlife habitats. The Commonwealth should modify infrastructure funding programs (such as MassWorks) to prioritize funding of infrastructure (e.g., small-scale municipal or private sewage treatment facilities) that enables denser growth in village centers and other appropriate smart growth locations. The Commonwealth should prioritize financial support for such facilities in municipalities that have also taken other steps to preserve open space – such as through Open Space Residential Design, cluster developments, TDR programs, or other similar initiatives. Other state grants (e.g., School Building Assistance funds) should be modified to require that funded projects incorporate greenspace for use by students, as a local park, or to provide co-benefits (e.g., hands-on science space in the case of schools).

- ▶ **Action 2.4: Coordinating high density development and open space protection.** The Commonwealth should encourage 40B developments to provide recreation space on site or contribute to a fund to provide recreation facilities nearby to ensure that the residents have adequate access to open space and recreation lands. Municipalities should be encouraged to implement similar programs for special permits for higher density residential developments. State-subsidized developments should be required to use Low Impact Development techniques, minimize impervious cover, utilize native plant landscaping, and provide for greenspace or re-greening of nearby areas. High density developments that provide open spaces, parks, or public plazas as a condition of approval should also be encouraged to provide public amenities (e.g., water fountains, publicly accessible restroom facilities).

Strategy 3

Ensure that all residents of the region have access to adequate quality open spaces regardless of age, income, race/ethnicity, or ability.

Parks and open spaces and the many benefits they afford are not distributed equitably across the Commonwealth. This is not unique to Massachusetts; studies have demonstrated the positive correlation between access to green space and higher levels of income and educational attainment in metropolitan regions across the United States. In addition to prioritizing open space preservation and park improvements in communities subject to public health disparities and most at risk from the increasingly damaging effects of the climate crisis, we must ensure these spaces are accessible. New parks and outdoor recreation areas must be accessible via all means of transportation and compliant with the Americans with Disabilities Act. This includes incorporating appropriate street furniture, shade trees, and other amenities. Transportation planners should be part of open space development processes and consider open space access when developing bicycle, pedestrian, and transit plans.

- ▶ **Action 3.1: Clearly publicize that all open space facilities acquired by municipalities with state or federal grants are open and accessible to all residents of the Commonwealth.** To promote more equitable access to parks and outdoor recreation facilities across the Commonwealth, cities and towns should proactively encourage and make known that all residents of the Commonwealth are invited to access and enjoy these amenities. The Commonwealth should emphasize this existing requirement for any land acquired for open space development through state or federal grant funds. Site parking and signage and permitted programmatic uses for these amenities should reflect this requirement.
- ▶ **Action 3.2: EEA’s Division of Conservation Services (DCS) should update the Open Space and Recreation Plan Workbook to incorporate current policies and best practices regarding open space and recreation planning.** The Open Space and Recreation Plan Workbook is the guiding document for Open Space and Recreation Plans (OSRP). OSRPs are not only valuable for creating local strategies to preserve and expand conservation and recreation facilities, but they also enable cities and towns to take advantage of DCS grant programs. A number of updates that should be made to the Workbook include:
 - Promote Universal Design features at park and recreation areas so that such facilities “can be accessed, understood and used to the greatest extent possible by all people, regardless of age, background or ability”².
 - Require municipalities to develop inclusionary policies for all park and recreation facilities. Such policies should encourage programs that are “accessible, welcoming and equitably utilized by communities of color and immigrant and refugee populations by developing partnerships that include race and social justice as fundamental to their operations and

¹ “Who has access to urban vegetation? A spatial analysis of distributional green equity in 10 US cities,” <https://www.sciencedirect.com/science/article/abs/pii/S0169204618307710>.

² Parks for Inclusion – Guidelines for Developing and Inclusion Policy, National Recreation and Park Association.

business practices”³. Similarly, create recreational programs designed to be enjoyed by people of all ages.

- Require that OSRPs address the specifics of how municipalities ensure that parks or conservation areas acquired or developed with state or federal funds (e.g., PARC, LAND, Land and Water Conservation Fund) are open and advertised as available to all residents of the Commonwealth regardless of their place of residence.
- Identify areas that lack open space and recreational opportunities in close proximity to residential areas.
- Identify opportunities to maximize co-benefits of parks and open space, including climate mitigation and resiliency, economic development, and public health.
- Identify opportunities for regional collaboration with neighboring municipalities on regional greenways and trail projects, as well as aquifer or habitat protection projects.

► **Action 3.3: Provide increased points on scoring of state grant applications that promote walking, biking, and transit access to outdoor recreation sites, parks, and other open space amenities.** To incentivize stronger coordination between transportation planning and open space preservation and development, the Commonwealth should provide additional points on relevant state grants that promote non-car access to parks and open space. DCS grants should provide additional points on applications from municipalities that have implemented a 10-Minute Walk program (ensuring every resident lives within a 10-minute walk of a park or other open space), a Parks by Transit initiative, or similar efforts to promote non-car access to green spaces. Similarly, MassDOT should provide additional points to Complete Streets applications that support safe walking and biking connections to parks and open space.

Strategy 4

Maximize the economic, environmental, and public health co-benefits of preserving core wildlife habitats, working forest and agricultural lands, and water supply protection areas.

While land conservation is a valuable endeavor in and of itself, it also offers a range of co-benefits. These efforts help preserve a natural resource-based economic sector, in part by expanding area available for solar and wind energy generation. Public parks and outdoor recreation areas not only provide space for walking, biking, and forms of physical activity, but many also offer shade trees, benches, and other amenities that expand the cohort of people able to enjoy the outdoors in comfort. Furthermore, land preservation is often part of broader climate resiliency strategies, lessening the damaging effects of increasingly dangerous extreme weather events.

- ▶ **Action 4.1: Work toward a goal of no net loss of farmland and forest.** EEA should implement a suite of incentive-based programs to achieve no-net loss of farmland and forest land. Sequestering carbon in natural and working lands is one area where climate mitigation and resiliency intersect. As described in EEA's Interim Climate and Clean Energy Plan, achieving no net loss of farm and forest land by 2030 is a core strategy identified in the office's Resilient Lands Initiative. EEA should move forward with an incentive-based program that preserves farm and forest land while encouraging smart growth development. In exploring financing options, EEA could consider how preservation of woodlands could provide carbon offsets that also act as a financial incentive for OSRD or TDR.

Additionally, the Legislature should pass no-net-loss legislation. Developers that convert farm or forestland should contribute to a fund that can be used to re-green other areas by undertaking activities such as planting of street trees, establishment of community gardens, or reforestation of environmentally degraded lands. This effort should be coordinated with the goal of ensuring that all residents have open space/park space within a ten-minute walk from their homes.

- ▶ **Action 4.2: Integrate renewable energy generation and open space preservation to promote and support natural resource-based elements of the local economy such as farming and tourism.** The Commonwealth's open space can serve as a venue to support the transition to a clean energy future. EEA should develop a strategy to coordinate renewable energy generation (particularly wind and solar) in conjunction with open space preservation as a means to provide financial support for open space uses. For example, the Commonwealth should prioritize siting wind turbines on large areas of protected farmland where turbine noise is unlikely to disturb neighbors and turbine bases take up little area of the protected land. Renewable energy generation that conflicts with the main purpose of open space preservation (e.g., large solar fields that replace crops on prime agricultural soils) should be avoided. For more recommendations regarding a statewide community

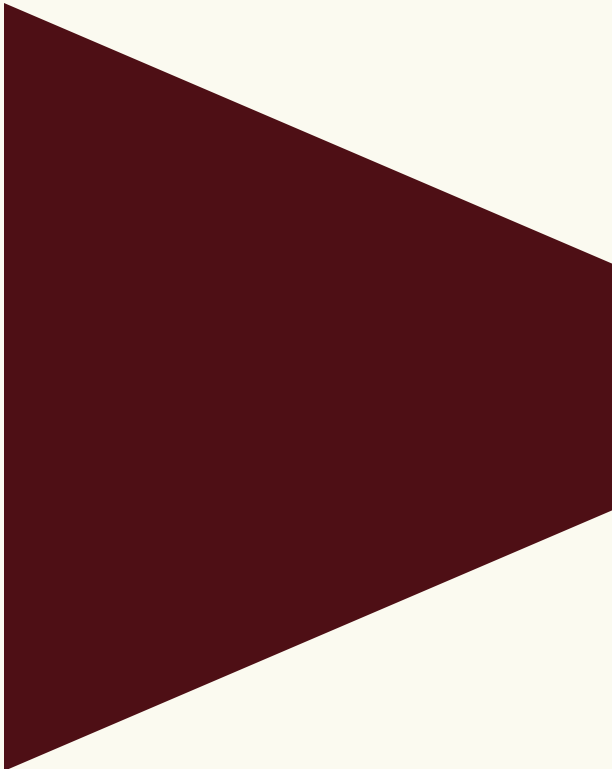
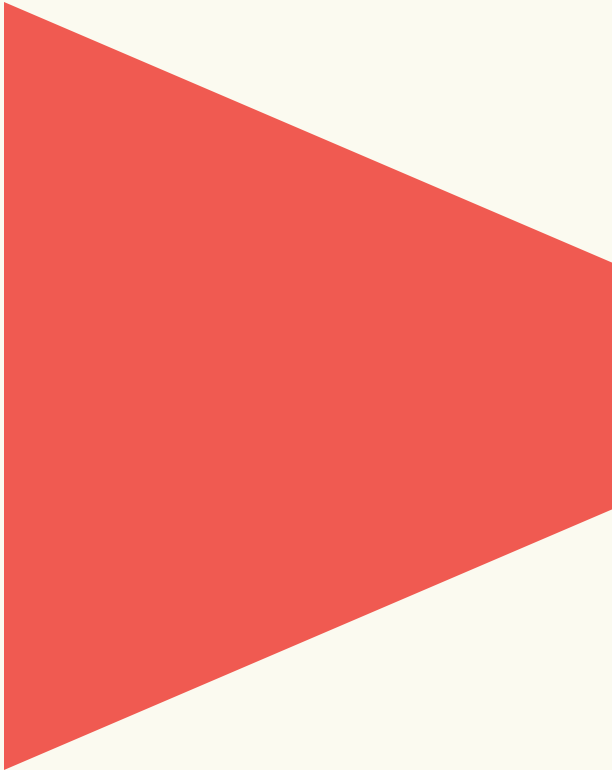
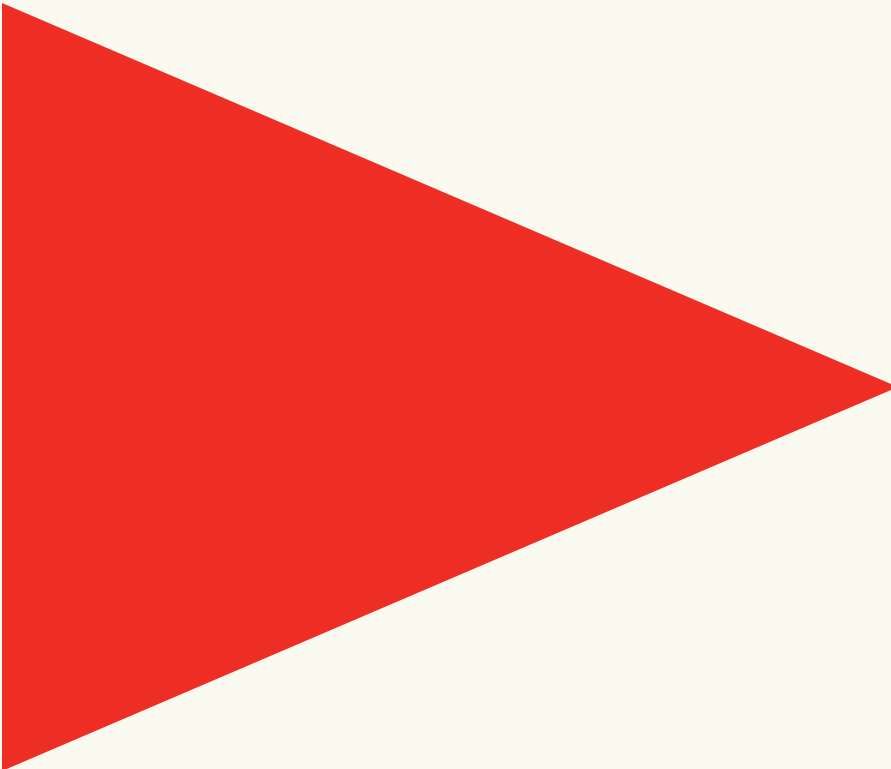
energy strategy, see Action 2.2 in “**Accelerate the transition to a clean energy future.**”

► **Action 4.3: State and municipal contracts with food vendors should prioritize vendors that source more than 20 percent of their food locally.** In addition to complementing our local and statewide climate and public health goals, creatively and strategically using our open space resources can also help make progress toward a more resilient Massachusetts economy. The Commonwealth and cities and towns should use their purchasing power to support local farms by giving preference to food vendors that source at least 20 percent of their food locally. This not only keeps more money within the Massachusetts economy, but also supports local farms that often struggle with economic volatility. For additional efforts related to enhancing local food production, see Action 2.3 in “**Expand and promote the resiliency of small businesses, particularly those owned by people of color, and encourage large employers to invest in local economies and advance equity.**”

► **Action 4.4: Cities and towns should develop tree management plans for open spaces and street trees.** Just as municipalities complete OSRPs to gather a comprehensive perspective on open space and recreational amenities and needs, cities and towns should pursue similar planning and management strategies for trees. Trees offer a multitude of benefits, providing shade and mitigating heat island effect, serving as wildlife habitat, alleviating stormwater runoff, and providing aesthetic benefits. Municipalities should develop tree management plans to inventory current tree assets and determine areas in need of additional tree canopy. These plans should also include discussion of tree replacement programs whereby residential, commercial or industrial developments that remove trees, especially in greenfield sites, contribute to a conservation and climate mitigation fund that can be used to preserve farms and forests, pay for urban street-tree plantings and similar actions. Similarly, infrastructure projects should replace the same number of trees they remove. Alternative programs to fund tree maintenance and management should be explored, since many municipalities lack the resources to adequately manage their urban trees. MAPC should also promote alternative means of lowering costs for greening and maintenance. For example, a municipality could coordinate with a local agricultural high school to run tree nurseries that provide low cost/free trees for urban re-greening, and/or use in 40B or 40R developments to lower costs and potentially increase housing affordability.

Municipalities should also be encouraged to establish tree preservation/tree replacement bylaws/ordinances to preserve trees on private property, which serve the public interest (e.g., heat island mitigation of trees that shade public roads). Municipalities should also support and provide incentives for voluntary green development standards (e.g., density bonus for preserving and maintaining greenspace as part of a development).

*Make government more
participatory and inclusive*



Recommendation: Make government more participatory and inclusive

Strategy 1

Expand pathways for engagement to improve accessibility of local governments.

Local, state, and federal government should be accessible to people in the community in order to ensure that it includes all residents. Residents should easily be able to find out what services are available to them, when public meetings are taking place and how to participate, and how they can best weigh in on local decision-making. Too often, local governments hear from the same few residents that have the time and knowledge to participate in meetings, call their elected officials, and write letters expressing their views. Expanding opportunities for virtual participation will be one critical avenue for promoting access to local governments. The COVID pandemic gave us an opportunity to see how innovative virtual participation can work in real time, but it also laid bare the need to invest in broadband and digital infrastructure. We should maintain the increased level of accessibility through virtual platforms so that more residents are able to participate and stay informed about local decision-making.

- ▶ **Action 1.1: Pass a suite of voting and electoral reforms to improve access to voting and increase voter turnout.** In the later part of the 20th century and the early part of the 21st, voter turnout in Massachusetts dipped from its highs in the 1940s and 50s, where we saw upwards of 80-90% voter turnout.¹ Encouragingly, the 2020 election saw a voter turnout rate of 76%, the highest in the Commonwealth since 1992.² However, an analysis of recent voter turnout data shows that there is a significant disparity in voter turnout across the Commonwealth, with the lowest turnout in Gateway Cities, where income and education levels fall below the state average. A MassInc Polling analysis confirmed this trend among early voters in the 2020 presidential election.³ That report showed that “in 10% of cities with the highest rates of early voting, 64% of residents have a Bachelor’s degree or higher, compared to just 31% among the bottom 10%.”⁴ When all of the results were in, a MassVOTE report confirmed this trend, the highest turnout communities had a median household income of \$127,000, while the lowest turnout communities had a median household income of just \$59,000.⁵

1 <https://www.sec.state.ma.us/e/elevoterturnoutstats/voterturnoutstats.htm>

2 <https://www.boston.com/news/politics/2020/11/19/massachusetts-2020-turnout/>

3 <https://www.wbur.org/news/2020/09/23/early-voting-data-inequity-massachusetts>

4 Ibid.

5 https://4da245b5-2040-4b7c-8d3a-890d1f13e948.filesusr.com/ugd/04949f_c886593fe4294d-a581a4c022f286de6f.pdf

The increased voter turnout trends in the 2020 election can largely be attributed to an emergency suite of voting reforms that were implemented during the COVID-19 pandemic. In order to encourage voter participation, some local elections were delayed, and then in July 2020, the Legislature dramatically expanded mail-in voting, expanded ballot access online, and created early in-person voting for one week prior to the primary election and two weeks prior to the general election.⁶

In order to maintain high voter turnout, long-term permanent voting reform measures are needed, including automatic voting by mail, expanded early voting, and same day voter registration. The efficacy of automatic voting by mail and early voting is clear, but same day registration has similarly been proven to work. Twenty states and the District of Columbia currently use same day registration and it has increased voter participation, especially among underrepresented voters and renters.⁷

One additional measure deserves further research would be to lower the voting age to 16 for local elections. While young voters ages 18-29 are typically low turnout voters, recent elections indicate that this trend is shifting.⁸ Two Maryland municipalities have lowered their voting age to 16 for local elections, and 15 states allow 17-year-olds to vote in primaries.⁹ In 2019, Somerville City Council passed a measure that would allow 16- and 17-year-olds to vote in local elections, but the proposal was not approved by state lawmakers.

► **Action 1.2: Update the Open Meeting Law to increase participation.** The Massachusetts Open Meeting Law applies to government entities at the state and local level. The law generally requires that the meetings of these entities be open to the public, that notice of such meetings be publicly posted, and that accurate records of the meeting be kept and made available to the public.¹⁰ The first Open Meeting Law was adopted in 1958 and was substantially revamped in 1975. Since that time, its format and general provisions have remained the same.¹¹ But when COVID-19 hit in March of 2020, it was necessary to quickly and immediately adopt changes to our Open Meeting Law provisions to allow remote deliberation and participation. What had once been deemed a process unlikely to see any significant changes without years of legislative study was suddenly upended overnight.

The Governor's March 2020 Executive Order Suspending Certain Provisions of the Open Meeting Law¹² was extended on June 16, 2021, and it creates remote meeting provisions until April 1, 2022. The new law allows public bodies to continue providing live, "adequate, alternative means" of public access to a public meeting, which can include access through telephone, internet, or other technology that allows the public to follow the proceedings in real time. The law also authorizes all members of a public body to continue participating in meetings remotely, suspending the requirement that a quorum of the body and the chair be physically present at the meeting location.

6 Session Laws. Acts of 2020 c. 115, An Act relative to voting options in response to COVID-19, July 6, 2020. <https://malegislature.gov/Laws/SessionLaws/Acts/2020/Chapter115>

7 <https://www.ncsl.org/research/elections-and-campaigns/same-day-registration.aspx>

8 <http://www.electproject.org/home/voter-turnout/demographics>

9 <https://vote16usa.org/project/maryland/>

10 M.G.L. c 30A §§ 18 through 25

11 <https://www.holdenma.gov/sites/g/files/vyhlif4526/f/file/openmtgguide.pdf>

12 <https://www.mass.gov/doc/open-meeting-law-order-march-12-2020/download>

Allowing remote participation changed the landscape of public participation in government, opening access to meetings for those with disabilities, those who faced transportation challenges, or for those who could not attend previously due to work or family obligations. Remote participation and access to public meetings must be made permanent to reflect current civic engagement expectations and realities. The Legislature should make long-term changes to our Open Meeting Law in order to allow for continued engagement at the local level, baking more flexibility into our Open Meeting Law so that our public meetings remain open to the public in a variety of ways and encourage participation. Changes to our Open Meeting Law should take into consideration the rapidly evolving nature of meeting technologies and should allow for the appropriate flexibilities as new options become more widely available and secure.

► **Action 1.3: The Commonwealth should invest in publicly accessible broadband and increase digital literacy.** One of the challenges of pivoting so quickly to remote work and participation during the pandemic is that not all communities had the resources to meet huge new digital needs. Almost overnight, the internet became essential infrastructure to ensure that people could work and learn remotely and stay connected. As municipal offices, schools, and social service centers closed, the internet was also critical to communicate essential information about the pandemic and ensure residents were able to access needed services. Unfortunately, the digital divide is a very real problem in the Commonwealth, and it impacts some of the lowest-income communities in our region.

Residents should not suffer from disproportionate access to the internet. Instead, the state should provide resources for cities and towns to plan for and invest in broadband. One option to explore is municipal broadband. Investing in municipal broadband could give residents faster internet speeds, lower prices, and better customer service than from traditional internet service providers (ISPs), many of whom created redlining practices in the Commonwealth. In some cases, ISPs face very little competition, which allows them to raise rates without improving quality of service. Municipal broadband would offer an alternative publicly-owned model and help provide internet access to those who cannot otherwise afford it and don't currently have equal access. Several communities south of Boston, including Milton, Quincy, and Weymouth, are in the preliminary stages of planning for municipal broadband. In some parts of the region, it may make sense to explore a similar regional framework so municipalities can share the limited resources available for broadband investment. Longer-term, a public access open broadband approach supported by the state could be considered.

One way to support expanded access to broadband in the Commonwealth could be to increase funding for the technical assistance programs available through the Massachusetts Broadband Institute (MBI). Created in 2008, MBI is a division of the MassTech Collaborative aiming to bridge the digital divide and expand access to affordable high-speed internet.

Dedicated funding for the creation of broadband access programs should prioritize investments in municipalities that currently experience limited digital accessibility, and it should be coupled with efforts to build local digital literacy among local governments and residents. See Action 2.1 in “**Improve local government capacity and service delivery**” for more details on expanding internet access to local governments.

Best/emerging practice: In partnership with the Massachusetts Broadband Institute, Central and Western Massachusetts communities have pursued measures to expand broadband access to residents. In 2014, MBI created the MassBroadband 123, a 1,200-mile open access fiber cable network in Central and Western Massachusetts primarily serving public institutions in the region. This critical “middle mile” infrastructure also connects local networks to other network services providers and major telecommunications carriers. MassBroadband 123 has enabled the successful launch of several “last mile” broadband programs. In 2015, LeverettNet was the first of these last mile programs to launch, with 650 of the Town’s 800 households signing up for service.¹³ The Town created the Leverett Broadband Committee and the Leverett Municipal Light Plan to oversee approach, financing, and construction of the network.

Strategy 2

Enhance resident influence and representation in local decision-making.

In most forms of local government, decision making is at the hands of a small number of individuals who serve on the executive and legislative branches. In many cases, local decision makers have been in power for a long time, and board and commission members are not representative of the residents who are the most likely to be impacted by their decisions. Opportunities to serve on boards, commissions, and other decision making bodies are not always well publicized and might ultimately be limited to residents who know how to navigate the system. In addition to the actions in Strategy 1, investing in local civic infrastructure and elevating the role of community-based organizations can enable more residents to participate in local planning and decision making processes. Additionally, municipalities have the opportunity to make these engagement processes more meaningful by giving community-driven planning efforts, particularly master plans, more influence on local policy and zoning decisions. A more participatory and inclusive government would give its residents greater say on how their government functions, what it spends its money on, and what programs and policies are needed to best serve its residents.

- ▶ **Action 2.1: Cities and towns should expand community engagement for local projects and work with local resident organizations.** Good community engagement leads to positive outcomes for residents and government alike, resulting in more equitable, sustainable public decisions that improve the lives of residents, and especially those residents that are most affected by a decision or project.¹⁴

¹³ <https://broadband.masstech.org/last-mile-programs/im-pact-stories/leverettnet>.

¹⁴ <https://medium.com/change-lab-solutions/equitable-community-engagement-34d2542f68fd>

Too often, the residents who participate in the community engagement process represent a narrow slice of the whole community, trending towards older, whiter, and longtime residents that are most often homeowners.¹⁵ This skews the perspective on local projects, leaving out the critical voice of the majority of residents, and potentially resulting in decisions that don't reflect the true perspective of the community.

One way to expand the capacity of community engagement is to partner with community-based organizations and other institutional partners. All municipalities have these civic organizations, which can include anything from a parent-teacher organization, to a service organization like Rotary or Kiwanis, to a Community Development Corporation or other local non-profit. These organizations can complement those groups that might already have high participation rates in community meetings, including those longtime residents, local Chambers of Commerce, or Realtors groups.

These community based organizations can partner with local entities and engage in a variety of activities to increase public participation, including co-host public input sessions in a familiar setting, help to adapt information to a language and format that makes sense to the desired audience, recruit attendees and help to provide critical support such as transportation and child care, and help to report back to the community about how the input was used in the final decision.¹⁶

Where appropriate, communities should offer compensation to community-based organizations that help with these efforts.

Best/emerging practice: Participatory Budgeting

Participatory budgeting is a process whereby community members decide how to spend part of a public budget. It started in Brazil in 1989 and has had dramatically positive results for the people who live there. Several communities in Massachusetts are experimenting with participatory budgeting, with Cambridge already in its 8th year of participatory budgeting.¹⁷

The Cambridge participatory budgeting process focuses on how to spend \$1 million in one-time capital projects. Community members brainstorm projects in June and July, and then volunteer budget delegates turn the ideas into formal proposals, which are vetted by city staff and approved by the city manager. In December, the final proposals go to the ballot for a vote by any Cambridge resident 12 and over. The final projects are included in the next fiscal year budget. Past projects include musical instruments for the high school, bilingual books for kids, extending outdoor public wi-fi, pedestrian-controlled crosswalk lights, and laundry access in public schools.

15 http://sites.bu.edu/kleinstei/files/2017/09/EinsteinPalmer-Glick_ZoningPartic.pdf

16 https://www.ca-ilg.org/sites/main/files/file-attachments/partnering_with_comm_based_orgs_final.pdf

17 <https://pb.cambridgema.gov/>

- **Action 2.2: Board and commission vacancies should be made more public and residents in these roles should receive a stipend, where appropriate.** In every corner of the Commonwealth, cities and towns appoint residents to serve on boards, commissions, task forces, and committees to advise paid staff and elected officials on a wide range of issues. Most of the time, these positions are volunteer positions and residents serve without compensation. There are many barriers to volunteering to engage in public service. Meetings are often in the evening, making participation difficult for those who work in the evening, have family and childcare commitments, or face transportation challenges. Additionally, the work of volunteer committees is often, by design, thankless and behind-the-scenes. And too often, residents who are appointed to committees come from a relatively small pool of individuals, rather than reflecting the diversity of a particular community.

Cities and towns can address these issues by creating a public process to elevate public service opportunities within their community. Some communities in our region widely publicize public service opportunities, but not all communities do. Cities and towns should publicize board and commission vacancies in multiple places – online, in the local paper, and in newsletters that come from local elected officials. Sending information about opportunities for civic engagement home with school-age children could also help to reach a wider audience. Information about available positions should clearly state the committee’s responsibilities, decision-making authority, and timeline, so that all interested individuals come into the process with as much information as possible.¹⁸

Finally, some boards and commissions serve for a very long time without any compensation. Where appropriate, individuals who serve in these roles should have the opportunity to collect a stipend to support them. As described above, a stipend program should similarly be designed to encourage participation of those who otherwise would not have an opportunity to participate due to family and childcare commitments, transportation challenges, or other barriers. Cities, towns, and counties across the country are experimenting with paying these previously all-volunteer positions, and Massachusetts should explore this opportunity at the state level and set aside funds so municipalities can provide stipends to those residents who volunteer or are appointed to public boards and commissions.

- **Action 2.3: Municipalities should ensure zoning bylaws and ordinances do not conflict with their master plan.** Most municipalities in the region have adopted community-wide master plans. These plans (sometimes referred to as comprehensive plans) cover many topics, including land use and housing. Developing a master plan requires significant investment, can take two or more years to complete, and involves extensive community input. The resulting goals and strategies often include a number of recommendations to create a more inclusive and equitable community, such as adoption

¹⁸ <https://www.cbi.org/article/volunteer-committees-set-them-up-for-success/>

of inclusionary zoning, open space residential design bylaws, mixed-use zoning, and more. Once a master plan is adopted by the Planning Board, however, there is no requirement that a community implement its own plan, often creating a disconnect between its master plan and regulations.

Massachusetts cities and towns should ensure that zoning bylaws and ordinances do not conflict with their respective master plans. Doing so will ensure that a community's zoning aligns with the goals and strategies developed and adopted in the master plan. Numerous other states, including New York, California, Rhode Island, and Maine, require local zoning to conform with adopted master plans. In New York, for example, once master plan is adopted, all land use regulations must be in accordance with it. This usually means that plan adoption is followed by the adoption of a series of zoning laws designed to "implement" the comprehensive plan.

To implement this policy action, several considerations should be taken. First, the Commonwealth should provide technical assistance resources to ensure master plans are updated periodically. Second, the Commonwealth should require each master plan to contain a baseline level of detail, so that the zoning and land use recommendations are clearly outlined. Finally, there are some exclusionary zoning measures that could have a sizeable negative impact on the region. Action 2.2 in "**Improve regional coordination and partnerships for infrastructure and services**" describes how a regional land use board could intervene in these limited circumstances.

Strategy 3

Grow local efforts to promote diversity, equity inclusion within the municipal workforce and across government boards and committees.

MAPC has done extensive research into the [diversity of our municipal workforce](#). Our research showed that city and town employees are, as a whole, both older and Whiter than the region's general labor force, as well as its population.¹⁹ This disparity can influence residents' knowledge of and interest in participating in local planning and decision-making processes. Staff who carry out the day-to-day functions of local government have influence on how receptive a government is to the needs of its people. A workforce that more closely resembles the demographic makeup of the community can support more effective and culturally competent community engagement initiatives and allow more residents to feel their perspectives will be heard by their local government. A diverse municipal workforce that reflects local demographics is not only important for representation in decision-making, but also expands professional pathways for individuals who otherwise may not feel inclined to explore a career in municipal government. As such, the actions below must work in concert with the recommendations for a more creative, adaptive, and diverse municipal workforce included in Strategy 1 in "**Improve local government capacity and service delivery**".

¹⁹ <https://metrocommon.mapc.org/reports/14>

- ▶ **Action 3.1: Cities and towns should collect and report data about their municipal workforce and committee demographics.** MAPC’s research on municipal workforce diversity relied on self-reported demographic and occupation information compiled by the U.S. Census Bureau to assess age, gender, and race/ethnicity demographics of municipal employees living in the MAPC region, which was supplemented with publicly available municipal workforce demographic statistics from individual cities and towns.

In order to get a clearer picture of how we are meeting our goals, every municipality should be collecting and publishing information about their workforce demographics using clear data standards. As recommended in Action 2.4 in “**Improve local government capacity and service delivery**”, the state should create an Office of Data Standards that promulgates these data standards for cities and towns. These data standards would enable comparisons across communities over time, and help cities and towns get a better sense of where they might be falling short.

These data standards can also be applied to municipalities’ boards, committees, and commissions, which would help to show where cities and towns need to do more work to recruit local volunteers that reflect the demographics of the community.

- ▶ **Action 3.2: Support municipalities’ diversity, equity, and inclusion (DEI) efforts through an expansion of the Office of Access and Opportunity, to provides technical assistance and support for municipal DEI work.**

Throughout history, government has played a role in creating and maintain racial inequity. While we have seen some progress in the past several decades, racial inequities continue to persist and have been sustained by systems that repeat patterns of exclusion. Many cities and towns in our region are doing important work to address DEI in their municipal workforce and in local policies and programs. This can help to implement policy changes at multiple levels and across multiple sectors and have a long-term impact on the lives of residents.

There are several state offices that are charged with overseeing DEI efforts, including, for example, within the Office of Diversity and Equal Opportunity at the Division of Developmental Services, and within the Office of Race, Equity, and Inclusion within the Department of Mental Health. The [Office of Access and Opportunity](#) works to increase diversity and inclusion within state government and partners with other leaders in state government to establish best practices. This office should be expanded to also provide technical assistance to cities and towns to help them create DEI plans and/or hire a DEI officer at the local or regional level.

An expansion of the role and purview of the Office of Access and Opportunity would help to better streamline DEI training that cities and towns provide to their employees. Local and state government staff should undergo implicit bias training alongside the traditional ethics training that state and local employees already take.

Another possible role for an expanded Office of Access and Opportunity would be to provide additional support for interpretation services at the local level. Local DEI staff do not have the capacity to provide interpretation services and are often left scrambling to provide translation at public meetings or in public documents. There is currently legislation pending on Beacon Hill that would mandate, standardize, and enforce language requirements for state-funded programs, by requiring agencies to translate websites and documents and provide oral interpretation services into non-English languages.²⁰ Should this legislation pass, it would be an important step towards ensuring equitable access to services for non-English-speaking residents, and it could be implemented within the Office of Access and Opportunity.

²⁰ <https://malegislature.gov/Bills/192/H3199>

Equity of Wealth and Health
*Improve quality of life and reverse
the rising rate of chronic diseases,
particularly among populations
experiencing health inequities*



Recommendation: Improve quality of life and reverse the rising rate of chronic diseases, particularly among populations experiencing health inequities

Strategy 1

Help all people achieve a healthy start in life through improved health outcomes for birthing people and infants.

Women die from pregnancy related complications in the U.S. at a higher rate than any other high-income country. In 2019, the World Health Organization and United Nations estimated that the U.S. and the Dominican Republic were the only countries to see increases in the rate of maternal deaths between 2000 and 2017.¹ Black and Indigenous women in the United States are more than three and two times more likely to die from pregnancy-related complications, respectively. Infants born to parents who are Black, Indigenous, and people of color (BIPOC) are also more likely to experience birth risk factors that can have long-term impact on a child's development.² The factors driving these disparities are diverse and complex. They start early as barriers to accessing affordable, culturally competent care that is free from discrimination and continue to accumulate throughout families' lives in the form of social and environmental inequities. These factors are compounded by the legacy of intergenerational trauma experienced by BIPOC communities, which further exacerbates health disparities.

► **Action 1.1: Build a more diverse health workforce and require health practitioners to address racism and racial disparities in care settings.**

Racism, not race itself, is the primary driving force behind disparately high death rates and complications at birth among BIPOC birthing people and infants. This crisis cannot be adequately addressed without first understanding and then dismantling racism and bias across systems of healthcare and public health. People of color, particularly Black, Latinx, Indigenous, and Asian and Pacific Islander women, consistently report experiencing bias and discrimination based on their race and gender in healthcare settings.³ Racism in healthcare and public health has effects that extend beyond pregnancy and birth. It can lead to over- or under-diagnosis of certain conditions among BIPOC patients and can discourage patients from seeking care, which has consequences long after birth. For example, fat bias is deeply rooted in racism and is associated with health interventions that are now recognized as non-evidence based.⁴ Additionally, studies have demonstrated the prevalence of the false notion among white

1 World Health Organization (2019). Trends in maternal mortality 2000 to 2017: estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division. https://www.unfpa.org/sites/default/files/pub-pdf/Maternal_mortality_report.pdf

2 Artiga, Samantha et al. (2020). Racial Disparities in Maternal and Infant Health: An Overview. Kaiser Family Foundation. <https://www.kff.org/report-section/racial-disparities-in-maternal-and-infant-health-an-overview-issue-brief/>

3 Taylor Jamila, et al. (2019). Eliminating Racial Disparities in Maternal and Infant Mortality: A Comprehensive Blueprint. Center for American Progress. <https://www.americanprogress.org/issues/women/reports/2019/05/02/469186/eliminating-racial-disparities-maternal-infant-mortality/>

4 Maddie, Sofia. (2020). Fat Phobia and Its Racist Past and Present. National Public Radio. <https://www.npr.org/transcripts/893006538>

medical students that Black people are more pain tolerant, which can lead to insufficient pain treatment for Black individuals and reduced quality of care.⁵

National and state leaders should require practitioners to develop competency on racial equity and inclusion and to take actions to address the effects of racism in healthcare and public health settings. [The Anti-Racism in Public Health Act](#), introduced by Senator Warren and Representative Pressley, would direct the Centers for Disease Control and Prevention (CDC) to declare racism a public health crisis and to improve data collection, research, and practices to promote anti-racist care and public health interventions. In 2019, California became the first state to require implicit bias training for healthcare professionals, a valuable first step to addressing discriminatory care. At the local level, a growing number of cities and counties have declared racism a public health crisis and begun to implement strategies to address racism across local governance and service delivery systems. These strategies should include placing members of groups most likely to experience health inequities in positions of influence on program development, implementation, ongoing monitoring, and determination of accountability measures. Research has also shown that BIPOC birthing people experience better outcomes when they receive care from a BIPOC health provider.⁶ Leaders must also align workforce and education policies to support career pathways that result in a more diverse and inclusive health workforce.

5 Hoffman, Kelly et. al (2016). Racial bias in pain assessment and treatment recommendations, and false beliefs about biological differences between blacks and whites. Proceedings of the National Academy of Sciences of the United States. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4843483/>.

6 Taylor, Jamila et al. (2019). Eliminating Racial Disparities in Maternal and Infant Mortality: A Comprehensive Blueprint. Center for American Progress.

7 MA COVID-19 Perinatal Coalition (2020). Giving Birth in a Pandemic: Policy Recommendations to Improve Maternal Equity During COVID-19. <https://static1.squarespace.com/static/5ec9763f4215f5026a66f967/t/5f0f1ee598c70c766f32bea9/1594826470104/Maternal+Equity+Coalition+Report+FINAL.pdf>

8 Pregnant and newborn care are the top reason why women between ages 19 and 44 spend 62% more per capita on healthcare costs than their male counterparts. Centers for Medicare and Medicaid Services (2014). U.S. Personal Health Care Spending by Age and Gender 2010 Highlights. <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/Downloads/AgeandGenderHighlights.pdf>

9 Gruber, Kenneth J. et. al. (2013). Impact of Doulas on Healthy Birth Outcomes. The Journal of Perinatal Education. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3647727/>.

- ▶ **Action 1.2: Expand access to full-spectrum pregnancy care, including coverage of post-partum care until one-year after birth or end of pregnancy.** Cost should not be a barrier to accessing safe, comprehensive, and evidence-based pregnancy-related care. In Massachusetts, MassHealth covers about 40 percent of all births and provides essential care for people while they are pregnant, during delivery, and up to 60 days post-partum. While most maternal deaths are preventable, nearly a third occur one week to one year after delivery.⁷ Many more people suffer from post-partum physical or mental health conditions due to pregnancy-related causes. Limiting pregnancy care to 60-days post-partum leaves many birthing people without critical access to care, including chronic disease management and behavioral and mental health screenings. Section 1115 Medicaid waivers can provide matching funds to help states extend post-partum care. MassHealth is currently seeking federal approval to extend post-partum coverage from 60 days to 12 months for the remainder of the state's 1115 waiver period, which expires in 2022. The next waiver must continue this expansion of post-partum care beyond 2022.

Additionally, high out-of-pocket medical costs and coverage limitations, such as those on midwife or doula care, undermine access to evidence-based pregnancy care and create financial hardships that disproportionately impact women.⁸ There is evidence to demonstrate improved outcomes associated with providing doula care to birthing people, including reduced likelihood of birth complications and having a low birth weight baby.⁹ There are several bills proposed in the Massachusetts Legislature to expand

access to full spectrum, low- to no-cost pregnancy care. For example, the Legislature should pass [H.1196/S.673](#), An Act ensuring access to full spectrum pregnancy care, filed by Representatives Lindsay Sabadosa and Ruth Balsler and Senator Cindy Friedman. This bill would require all Massachusetts regulated plans to cover pregnancy-related care, including abortion care, prenatal care, childbirth, and postpartum care without any cost-sharing. The Legislature should also pass [H.2372/S.1475](#), An Act relative to Medicaid coverage for doula services, filed by Representatives Liz Miranda and Lindsay Sabadosa and Senator Joan Lovely, which expands Medicaid coverage to doula services. At the federal level, Congresswoman Ayanna Pressley is the leading sponsor on a new bill, known as the [MOMMIES \(Maximizing Outcomes for Moms through Medicaid Improvement and Enhancement of Service\) Act](#), that would extend Medicaid coverage to a full year after childbirth and increase access to community-based services like doulas and midwives.

- ▶ **Action 1.3: Expand access to home visiting programs for expecting parents and families with infants and young children.** Home visiting is an evidence-based program that provides a variety of in-home services to expecting parents and families with infants and young children (up to pre-K). Most models involve parental support, skills training and education, health screenings, and linkages to community resources provided by a nurse or health educator. Research has shown that home visits can yield real benefits for child development and family health outcomes, including by increasing connections to adult education, employment, nutrition supports, and mental and behavioral health services.¹⁰ Several evidence-based home visiting models exist in Massachusetts, including Welcome Family, Early Head Start, Healthy Families America, and Parents as Teachers. The federal government provides funding for home visiting through the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) program, three percent of which is set aside for home visiting programs in American Indian and Alaska Native communities. Current funding allows the program to only serve a small fraction of families who could benefit. The federal government should expand this funding through the program's next authorization. The state can supplement home visiting funding (as other states have done) and assist programs in securing insurance reimbursement. Communities should consider innovative home visiting partnership models that have emerged among schools, social service providers, and local public health providers. Municipalities can also play an important role in coordinating services relevant to home visiting and by addressing access gaps for marginalized communities, including immigrant families.

¹⁰ Dodge, Kenneth et al. (2014). Implementation and Randomized Controlled Trial Evaluation of Universal Postnatal Nurse Home Visiting. *American Journal of Public Health*. Vol 104, No. S1

Best/emerging practice: Public Health Nurses (PHNs) in the North Shore have a long history of partnership and mutual aid. In 2018, PHNs from Beverly, Gloucester, Hamilton, Newburyport and Peabody came together to begin the North Shore Mother Visiting Program (NSMVP). Modeled on the Massachusetts Department of Public Health’s (DPH) Welcome Family program, the NSMVP offers a free one-time home visit to any new mother or caregiver, ideally within 12 weeks (but up to one year) of giving birth or adopting a baby. The program is universal; there are no income, insurance, or other eligibility restrictions. Since the first home visit, PHNs have visited 90 parents in the participating communities. During these visits, they conduct a clinical assessment of the mother and infant’s health, provide breastfeeding guidance, screen for emotional health issues, such as postpartum depression or substance abuse, and connect new mothers or caregivers to vital health and family support services.

Strategy 2

Invest in and expand access to programs that support families’ basic needs.

In addition to providing more affordable and accessible care, efforts to improve equity in public health outcomes must also include fostering the conditions that help prevent disparities from the outset. Disparate access to healthy food, safe and stable housing, and adequate mental health care can all exacerbate inequities in public health outcomes. While programming and resources exist to help these basic needs, they often lack sufficient funding and can be inaccessible to residents who are proficient in languages other than English. Investing in these programs and making services more accessible not only improves the quality of life for more residents of the Commonwealth, but can also alleviate public health disparities and reduce healthcare costs in the long term. Efforts to reduce community violence (see “**Ensure all residents are provided equal protection and support by law enforcement agencies and within the justice system.**”) and improve wealth equity and economic stability (see “**Enable wealth creation and intergenerational wealth transfer**”) should work in tandem with the ideas presented in this strategy.

- ▶ **Action 2.1: Adopt universal free school meals to allow every student to access the nutrition they need during the school day. Food insecurity touches every community in Massachusetts.** Today, one in five households with children are food insecure, with Black and Latinx families disproportionately impacted.¹¹ Children have always been one of the groups most impacted by food insecurity and its long-term consequences, and COVID-19 has exacerbated this issue.¹² School meals can account for half of the meals a child eats and are a critical source of nutrition. These meals help kids learn and be active in the short term, and thrive academically, physically, and emotionally in the long term. School meals also establish lifelong healthy eating habits that can reduce the risk of type 2 diabetes, heart disease, and obesity, along with the cost associated with these diseases.¹³

11 Definition of Food Insecurity: Food insecurity is the limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways. Source: USDA referenced definition from Life Sciences Research Office, S.A. Andersen, ed., “Core Indicators of Nutritional State for Difficult to Sample Populations,” *The Journal of Nutrition* 120:1557S-1600S, 1990.

12 One in 10 households with children were food insecure before the COVID-19 pandemic. Source: Project Bread

13 Source for Background: Project Bread Feed Kids, Solve Hunger website: <https://feedkidsma.org/>

Passing legislation requiring universal free school meals in Massachusetts would recognize food as a basic need and right and allow every student access to the nutrition they need during the school day. [H.714/S.314](#), An Act relative to universal school meals, filed by Representative Andy Vargas and Senator Sal DiDomenico, would ensure all children are offered school meals (breakfast and lunch) at no cost to students or their families. This would be accomplished by maximizing federal funds available to schools participating in the National School Lunch or Breakfast Program, supplemented through state funds. To take the effort several steps further, the Commonwealth should look to a similar proposal in California and the [Universal Schools Meal Program Act](#), introduced by Senator Bernie Sanders and Representative Ilhan Omar in Congress, which provide incentives for local food procurement and supplement the summer Electronic Benefits Transfer (EBT) program to help families meet children’s nutritional needs when school isn’t in session. The federal proposal additionally increases resources for meals in childcare settings.

- ▶ **Action 2.2: Improve families’ housing stability by increasing the number of rental vouchers directed to families with children and eliminating barriers to the development of new homes for families.** Families with children face unique obstacles to accessing stable, healthy housing. Across the region, exclusionary zoning practices limiting the number bedrooms and age of occupants in new developments effectively prohibits housing for families with children. Child and family related discrimination collectively represented the third most common type of housing discrimination cases in Massachusetts between 2013 and 2018.¹⁴ This and other factors have contributed to Massachusetts experiencing one of the highest increases in family homelessness in the country.¹⁵ In an effort to direct limited housing assistance to people in greatest crisis, many housing programs have oriented preference policies to prioritize assistance for people experiencing homelessness, most often single individuals. However, research shows that unstably housed families have similar health outcomes to those experiencing homelessness. Taking a prevention approach by increasing the overall availability of housing assistance and directing more vouchers to support family housing stability can have long-term positive effects on the health of children and their caregivers.^{16, 17} Local resident preferences in communities that impose other barriers to housing for low-income families and families of color should also be scrutinized alongside the elimination of development policies that reduce housing opportunities for families with children. See the recommendations in **“Ensure that people of all races and income levels have equal access to affordable housing through homeownership and rental opportunities in every community.”** for more details.

- ▶ **Action 2.3: Help meet individuals’ social-emotional needs by facilitating access to mental health services and by investing in opportunities for social connection.** Even before the pandemic, health and social service providers were concerned about the high and increasing rates of mental health conditions and social isolation. These conditions affect people of all

14 MA Department of Housing and Community Development (2019). Analysis of Impediments to Fair Housing Choice. <https://www.mass.gov/doc/analysis-of-impediments-to-fair-housing-choice-2019/download>

15 Rog, Debra et al. (2017). The Growing Challenge of Family Homelessness. The Boston Foundation. https://www.tbf.org/-/media/tbfor/files/reports/homelessness-report_feb2017r.pdf?la=en

16 Fischer, Will et al. (2019). Research Shows Rental Assistance Reduces Hardship and Provides Platform to Expand Opportunity for Low-Income Families. Center on Budget. <https://www.cbpp.org/research/housing/research-shows-rental-assistance-reduces-hardship-and-provides-platform-to-expand>

17 Gaitan, Veronica (2019). How Housing Affects Children’s Outcomes. Urban Institute. <https://housingmatters.urban.org/articles/how-housing-affects-childrens-outcomes>

ages, but are particularly prevalent among BIPOC, LGBTQ, and low-income individuals, while social isolation affects older adults disproportionately. Mental health and social isolation are closely associated with chronic disease. They often co-occur and each increases risk for the others.^{18, 19, 20} The universal impact of these conditions indicates a need for intergenerational approaches to social emotional support. For example, increasing access to pregnancy-related care, home visiting, and affordable housing resident service coordinators can be an effective strategy for screening and then connecting young children and their caregivers to mental health resources. Flexible work hours and stability in the workplace also has an impact on the mental health of parents and children (see recommendations in Action 3.3). State funding and support for workforce development in the mental health provider field can help ensure there are adequate mental health providers for all age groups.

Physical and social environmental factors also play a role in development of mental health conditions. Social connections affect health in a variety of ways, including by promoting positive health behaviors and collective action on health issues and by counteracting feelings of stress and isolation.²¹ The Commonwealth and cities and towns should incentivize the development of housing with social connectivity aspects (e.g., common spaces, courtyards, and resident services coordination) and implement measures, such as joint-use agreements and multi-function facility design, to develop intergenerational community spaces in school buildings and recreation and senior centers. School buildings should be equipped to operate year-round to serve multiple community needs, including through weatherization and efficiency measures to ensure thermal comfort through the summer.

- **Action 2.4: Dismantle structural barriers to immigrants' integration and access to vital health-promoting resources.** One in six Massachusetts residents is an immigrant, and one in seven US-born residents has at least one immigrant parent, including a third of all children aged five and under.^{22, 23} The contributions of documented and undocumented immigrants as neighbors, workers, business owners, and taxpayers help make diverse, resilient, and thriving communities across the region. The disproportionate toll of the pandemic on these communities has highlighted the cost of excluding immigrants from basic protections and tools for survival. Eligibility rules that determine access by immigration status have their foundation in racist ideas of deservingness, rather than evidence of what works to achieve a healthy society. Even before adoption of the public charge rule, which made it easier for the federal government to deny legal status to immigrants who were “likely to use public benefits,” in February 2020, the announcement of its proposal reduced enrollment in children’s safety-net programs, including an enrollment decline of 260,000 children in Medicaid.²⁴ The rule has since been rescinded by the new administration, but the fact that fewer people were able to access critical health resources during a public health crisis exacerbated the impact of the pandemic and surely led to unnecessary suffering and spread of the virus.

When immigrants are excluded or discouraged from accessing preventative

18 National Institute of Mental Health. (2021). Chronic Illness and Mental Health: Recognizing and Treating Depression. National Institutes of Health. <https://www.nimh.nih.gov/health/publications/chronic-illness-mental-health/index.shtml>

19 National Alliance on Mental Health. (2021). Mental Health By the Numbers. <https://www.nami.org/mhstats>

20 Holt-Lunstad (2020). The Double Pandemic of Social Isolation and COVID-19: Cross-Sector Policy Must Address Both. Health Affairs. <https://www.healthaffairs.org/doi/10.1377/hblog20200609.53823>

21 Cockerham, William et al. (2017). The Social Determinants of Chronic Disease. American Journal of Preventative Medicine. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5328595/>

22 <https://www.americanimmigrationcouncil.org/research/immigrants-in-massachusetts>

23 <https://www.miracoalition.org/wp-content/uploads/2020/02/MIRA-MPI-young-children-of-immigrants-Jan2020.pdf>

24 <https://www.healthaffairs.org/doi/abs/10.1377/hlthaff.2020.00763>

care, nutrition supports, public safety, education, and workforce development resources, our society's collective wellbeing suffers. The concept of "deservingness" must be disassociated from resources that are critical for public health. The Commonwealth should start by recognizing language access as a critical link to health-supporting resources and opportunities. The Legislature can make language accessibility a priority in government services and decision-making processes by adopting [H.3199/S.2040](#), An Act relative to language access and inclusion, introduced by Representative Adrian Madaro and Senator Sal DiDomenico, and by investing in adequate resources for translation, interpretation, and outreach. These efforts should be complemented by increasing resources for English classes (ESOL), including by leveraging workforce and childcare development funds. State agencies and cities and towns should create roles for designated immigrant liaisons to help immigrants navigate communities' resources and programs. Additionally, the Legislature should adopt the Work and Family Mobility Act ([H.3456/S.2289](#), filed by Representative Tricia Farley-Bouvier and Christine Barber and Senator Brendon Crighton), the Safe Communities Act ([H.2418/S.1579](#), filed by Representatives Ruth Balser and Liz Miranda and Senator Jamie Eldridge), and other bills to expand MassHealth and in-state tuition eligibility to immigrant children and youth.

Strategy 3

Foster a caregiver economy with dignity and access for all.

Everyone needs care at some point in their lives, and quality caregiving provides dignity for workers while enhancing both immediate and long-term health outcomes for people receiving care. Yet, it is consistently undervalued and underpaid. According to the Domestic Workers Alliance, the pre-pandemic average salary of a childcare worker was \$25,510. Wages for residential care workers and home care workers are similarly low, contributing to high rates of turnover and vacancies. Care workers are disproportionately women, immigrants, and women of color. The devaluing of and inadequate public investment in care underscores the gendered, racialized, and ableist assumptions baked into our economic and political systems, and contributes to lesser quality care for children, older adults, and people with disabilities who rely on these services. We need an inclusive approach to all care work.

- ▶ **Action 3.1: Increase reimbursement for childcare providers and in-home caregivers, creating mechanisms to support higher pay and benefits for care workers.** The pandemic has highlighted how affordable childcare is essential infrastructure, providing critical support for working families and enabling women, in particular, to remain in the workforce. However, childcare providers are chronically underpaid. A report from the Center for the Study of Child Care Employment found that the median wage for childcare workers in 2019 was \$14.11/hour in Massachusetts, below what would be considered a living wage for one adult with no children.²⁵ Reimbursement rates for home- and community-based care should be increased through Medicaid and other public and private payers, with requirements that employers improve wages, benefits, training, and other pillars of job quality.

²⁵ <https://cscce.berkeley.edu/workforce-index-2020/states/massachusetts/>.

We also need to increase investment in Head Start and Early Head Start to establish childcare affordability through sliding scale subsidies that require no family to pay more than 7 percent of their income on childcare. Furthermore, funding to childcare providers should be allocated based on capacity (rather than attendance), whether providers accept families that use subsidies, and investments in educator salary and benefits. The Legislature should pass H.605/S.362, An Act Relative to Affordable and Accessible High Quality Early Education and Care. Filed by Representatives Kenneth Gordon and Adrian Madaro and Senator Jason Lewis, the bill aims to make high quality early education and childcare affordable to all Massachusetts families.

Sustainable improvements in caregiving access and wages ultimately requires significant federal investment. A Biden administration proposal released in March 2021 proposed \$400 million for home- and community-based care. Local governments could help address cost drivers for childcare providers by incentivizing development of affordable commercial spaces for childcare centers and targeting small business assistance to home-based childcare providers. Communities can also support Affordable Housing development that is inclusive of care workers alongside development targeted to older adults. See the “**Ensure that people of all races and income levels have equal access to affordable housing through homeownership and rental opportunities in every community**” recommendation for more details.

- **Action 3.2: Strengthen and expand tax credit programs to alleviate financial hardships for family caregivers, including those assisting with the care of adults.** Our nation’s emphasis on individual responsibility in caregiving places heavy financial and emotional demands on family caregivers. The US is the only wealthy country in the world that does not guarantee paid parental leave and is not among at least 17 countries that provide child allowances for most parents. Caring for an older parent or loved one with a disability can also take a heavy financial toll.²⁶ Almost a million Massachusetts residents assist with the care of an adult. The Earned Income Tax Credit (EITC) and Child Tax Credit (CTC), which families can claim when they file taxes, help alleviate financial hardship for families by boosting incomes and have been shown to improve health outcomes for children and their caregivers.²⁷ The 2021 American Rescue Plan Act enhanced the EITC and CTC and made the tax credits fully refundable, which expands benefits to families who previously earned too little to owe federal income tax. The enhanced benefits are projected to cut child poverty in half, but the measure is effective for just one-year. Making the enhanced benefits permanent is important to sustaining this impact. **H.2871/S.1841** An Act providing a guaranteed minimum income to all Massachusetts families, filed by Representatives Marjorie Decker and Andy Vargas and Senator Sal DiDomenico, would enhance the state’s EITC program, increasing the state match to 50 percent of the federal EITC, establishing a minimum \$2400 credit for every eligible households, and expanding the credit to unpaid caregivers of adults and individuals filing with an Individual Tax Identification Number (ITIN).²⁸ Similar legislative efforts are discussed

26 According to a 2016 AARP report, the average family caregiver spent almost \$7,000 on out-of-pocket costs – all to help their loved ones remain at home and in their communities. Those caring for adults with dementia spent an average of \$10,000.

27 <https://childrenshealthwatch.org/wp-content/uploads/CHW-EITC-2020-web.pdf>

28 This bill is also known as S.1852, An Act providing a guaranteed minimum income to all Massachusetts families, which was filed by Senator Jamie Eldridge.

in the **“Enable wealth creation and intergenerational wealth transfer”** recommendation. Other legislative proposals have alternatively sought to reimburse caregivers for care-related expenses, including AARP’s proposed tax credit of up to \$1500.

► **Action 3.3: Help family caregivers balance work and caregiving responsibilities by requiring employers to provide workers with greater flexibility and more predictable, stable hours.** When workers have predictable, stable hours with life-sustaining wages and flexibility, they are better able to meet basic expenses and plan for caregiving responsibilities. However, many people work in essential, but low-paying jobs in retail, food service, hospitality, and other industries where employees receive little notice of work schedules, experience shift fluctuations, and work an inconsistent number of hours. Black and Latinx workers, particularly women, are much more likely to be assigned irregular schedules.²⁹ This volatility contributes to poor mental health outcomes among workers and low or unstable incomes, and makes it difficult to impossible to arrange childcare to assist with care for an adult friend or relative. Research shows that children of parents with erratic schedules are less likely to use formal childcare centers, more likely to exit childcare subsidy programs after being enrolled, and switch childcare providers more often.³⁰ Income volatility can also make it more difficult for families to budget and maintain eligibility for means-tested programs. If adopted, the Massachusetts Fair Workweek Bill ([H.1974/S.1236](#), filed by Representatives Sean Garballey and Maria Robinson and Senator Pat Jehlen, link to legislative text) would provide workers greater stability for themselves and their families by requiring employers to give advance notice of employee schedules, predictable pay, and adequate rest between shifts, and to offer existing employees new shifts before hiring new staff. The bill also provides access to unemployment for workers who leave a job because their employer failed to comply with the Fair Scheduling practices. In 2019, business leaders and the Executive Office of Elder Affairs formed the Massachusetts Caregiver Coalition to assess and address the needs of unpaid family caregivers. The Coalition’s Employer Toolkit is mainly targeted to private employers but contains many recommendations that can be adopted by state and municipal employees as well, including providing workers with greater scheduling flexibility.

29 Cain Miller, Claire (2019). How Unpredictable Work Hours Turn Families Upside Down. New York Times. <https://www.nytimes.com/2019/10/16/upshot/unpredictable-job-hours.html?smid=nytcore-ios-share&fbclid=IwAR39cNFKn9eVp8y2U-GAFrqLynUkVk0r0Os0CouS1bRT-CWQbhSBhnNg1FI6k>

30 Human Impact Partners and Center for Popular Democracy. (2016). Scheduling Away Our Health: How Unpredictable Work Hours Affect Health and Well-Being. https://humanimpact.org/wp-content/uploads/2018/10/Scheduling-Away-Our-Health_rev3.pdf

31 <https://sfgov.org/olse/family-friendly-workplace-ordinance-ffwo>

Best/emerging practice: Since 2014, San Francisco’s Family Friendly Workplace Ordinance has allowed family caregivers to request greater schedule flexibility or more predictable work arrangements to help make caregiving responsibilities more feasible. The ordinance applies to San Francisco employees at workplaces with 20 or more employees, if the person making the request has been employed for six months or more by their current employer and works at least eight hours per week on a regular basis. Employees may request schedule flexibility or predictable arrangements to assist with care for a child or children under the age of 18, a family member with a serious health condition, or a parent aged 65 and older.³¹



Recommendation: Improve regional coordination and partnerships for infrastructure and services

Strategy 1

Give regional and local officials and residents more say in shaping services and infrastructure.

Many locally made decisions have a large effect on the region, although the region as a whole does not have a voice to represent regional interests. There are also many regional bodies that do not have mechanisms in place to ensure representation of individual municipalities and their residents. While there are often shared goals across local and regional entities, elevating both perspectives in decision-making can set the stage for stronger regional collaboration. For the most optimal reflection of our collective public interests, local and regional decisions need to accurately represent all those concerned.

- ▶ **Action 1.1: Add local voices to the boards of all regional organizations.** The governing and decision-making Boards of all regional entities, such as the Massachusetts Bay Transportation Authority (MBTA), the Massachusetts Water Resources Authority (MWRA), and the Massachusetts Port Authority (MassPort), should have most of their members selected by local officials and from among residents of Greater Boston. Groups of municipal leaders deciding regionally should suggest candidates to represent their interests, and populations from underrepresented groups and from service users should also have designees on regional Boards. All regional entities should create new and meaningful opportunities to enable service users to contribute to decision-making and collaborate in developing plans and policies. More specific recommendations are included in, “Make government more participatory and inclusive.”

Strategy 2

Improve coordination and create new regional entities with the authority to effectively shape services.

Several systems could be better governed by regional actors and through cross-sector collaboration. Infrastructure, in particular, should be thought of more holistically, given that decisions about land use and infrastructure investment include consideration of interactions among transportation, housing, and natural resource management. While we have regional bodies for transportation and water provision, other areas where decisions should be made regionally and where assets should be seen as a connected system, such as for parks and recreation, do not benefit from regional governance. While critics might point to a history of poor administration of such entities, past problems did not stem from the regional nature of these organizations and strong oversight structures and transparency could ameliorate such concerns in the future.

► **Policy Action 2.1: Regionally coordinate the management, investments, and expansion of parks, recreation areas, and open spaces throughout Metro Boston.**

Our region is home to world-class parks and protected open spaces, but there is little coordinated vision or management of these assets. MAPC's LandLine vision and the Department of Conservation and Recreation's (DCR) recently released Parkways Master Plan are important vision efforts and guiding documents, and they should be part of a larger coordinated strategy for the future of all parks, recreation areas, and open space in the long-term.^{1,2} The DCR, cities and towns, land trusts, statewide conservation organizations, and other entities own and operate these assets. By bringing together these landowners, along with advocates and resident representatives, a regional vision for a holistic network of open space and recreation could result. Through this elevated coordination, regional priorities can be identified and acted upon for connections among protected lands, expansion, and investments to ensure all corners of the region have access to parks and other open spaces and these lands become an interconnected network.

Over the long-term, creation of a Greater Boston Regional Parks and Recreation Agency could govern all DCR parks and facilities in the region, and potentially link to and support major municipal parks as well. Establishing such an entity would require a dedicated regional revenue source, potentially via a property tax surcharge or community assessment for municipalities being served and accompanying borrowing powers to support that infrastructure and offer robust recreational services. Dedicated revenues would reduce the need to rely on state appropriations for funding and enable more accountability to area residents. Governance for this new entity would include a board selected by regional, state, and local leaders and would include residents from underrepresented populations, environmental justice communities, and park and recreation constituencies.

1 <https://www.mapc.org/transportation/landline/>.

2 <https://www.mass.gov/doc/dcr-parkways-master-plan-2020/download>.

Best/emerging practice: The Metropolitan Council is charged with overseeing the long-range planning, acquisition, development, outreach, and research for regional parks and trails across the Twin Cities, Minnesota metropolitan area.³ The Met Council works with ten partner cities, counties, and special districts that own, operate, and maintain day-to-day functions at each park and trail in their jurisdiction. All proposed policies, grants, and other park-related plans and actions are first considered by the Metropolitan Parks and Open Space Commission. If approved, they are forwarded to the Met Council’s Community Development Committee for consideration, and finally, the Met Council policy board. The Met Council also oversees implementation of the Regional Parks Policy Plan, a 2040 blueprint for the development of a world-class regional park system for the Twin Cities region.⁴

► **Policy Action 2.2: Give the region a say in major development and land use decisions.** Sometimes local development decisions result in outcomes that have negative impacts on neighboring communities or that conflict with regional goals around smart growth and equitable transit-oriented development. These decisions can also conflict with objectives identified in the community’s own master plans, housing production plans, and other documents, or those adopted by neighboring municipalities. Creating a regional land use board to oversee and, in appropriate cases, to enforce policies to ensure more coordinated and equitable development, including housing production, should be explored. In addition to this oversight function, it may be necessary to consider giving this board the authority to overturn exclusionary zoning decisions. Not only does the region suffer when municipalities adopt zoning measures that exclude a certain subset of people, include BIPOC or low-income individuals and families with children, but these measures also oftentimes conflict with objectives identified by locally adopted planning processes (see Action 2.4 in **“Make government more participatory and inclusive”**). The regional board could also work with cities and towns to facilitate inter-municipal transfers of development rights, multi-community development plans, tax and cost sharing agreements, and other inter-municipal agreements. The regional land use board could be appointed by local and state officials representing a diversity of communities and populations, as well as appropriate areas of expertise. Additionally, the regional land use board could develop a regional housing development fund with revenues generated from significant projects and pooled to support affordable housing preservation and expansion in the region. Additional funding mechanisms are explored in **“Give Expand and improve the way we finance local and regional government.”**

³ <https://metro council.org/Parks/About/Oversight.aspx>

⁴ <https://metro council.org/Parks/Planning/Parks-Policy-Plan.aspx>.

Policy Strategy 3

Reshape service provision in key sectors such as health and education.

5 <https://www.boston.gov/finance/payment-lieu-tax-pilot-program>

Health and higher education are two of the largest and most important sectors in the Greater Boston economy. They care for, educate, and employ thousands of residents and shape our culture and society in countless ways. The health, prosperity, and equity of our region can be furthered by seeing these vital institutions better support the communities and region in which they reside. While it is no doubt beneficial that they have national and international reputations and clientele, they should also consider it a priority to strengthen the life chances of people in Greater Boston. They are generally non-profits with a charitable and community aim, which can and should play a larger role in their operation.

Hospitals are currently obligated to provide community health assessments and to justify new expansions through a Determination of Need approval from the Department of Public Health (DPH), with funding obligated from such expansions to support community health initiatives. Area colleges and universities work with their municipalities in a number of ways, but do not have a statutory or regulatory obligation to serve their communities. Partnerships between local government and regional agencies and higher education should be formalized and focus on the economic and social needs of the region.

- ▶ **Policy Action 3.1: Elevate local and regional input in the health and education sector.** Health and education services should be planned for at the regional level, with input from the people who reside in Greater Boston and its sub-regions. In health care, the state DPH currently regulates health care needs and quality with other actors and agencies, such as the Attorney General and Health Policy Commission, evaluating the economic and financial implications of health care expansions and mergers. Often, the health needs of regions, sub-regions, and communities do not receive significant consideration in such exercises. In education, state actors also oversee institutions of higher education. Public universities and the community college system in particular create links to their home communities, but this is done informally. There may be some consideration given to educational needs of area residents, or potentially workforce development imperatives, but there is no coordination of such efforts and certainly nothing at a regional level.
- ▶ **Policy Action 3.2: Strengthen the community obligation of hospitals.** Regional and local actors don't have a significant role in overseeing decisions about health care services, even when their communities may be greatly impacted by expansions or contractions in care. Decisions by health care entities may consider community impacts but, as they are increasingly part of national for-profit corporations or large regional systems, it is unclear whether community interests and needs sufficiently factor into their decision-making. That should change. Health care entities should be governed by

a statutory “community commitment” to the residents in the cities and towns they serve, and not simply the patients they treat. Additionally, the Commonwealth should require that all health care entities have at least some members of their governing boards appointed from the communities they serve, including from underrepresented populations, bringing local and regional interests to the table in shaping health care programming and service. The community commitments should specifically seek to ensure that hospitals give priority to the goals in regional health plans regarding both investment and care provision and address the needs of low-income residents, residents of color and people with chronic and long-term health conditions. Health care entities should also form close partnerships with local public health agencies in their catchment areas, jointly conducting community health assessments and implementing health improvement plans for their cities and towns.

► **Policy Action 3.3: Facilitate consistent payments in lieu of taxes (PILOT) for large tax-exempt property owners.** Greater Boston is home to a diverse array of medical, educational, and cultural institutions. Many of these institutions own property worth tens of millions of dollars. Because of their tax-exempt status, these institutions are not required to provide payments to their host communities, despite being provided services such as police, fire, and snow removal. Beginning in FY2012, the City of Boston created a voluntary PILOT program that asks institutions with holdings over \$15 million to contribute 25 percent of what their tax obligations would be if they were not tax exempt. They may reduce the requested cash payment by up to 50 percent by demonstrating the value of eligible community benefits (such as scholarships and trainings). In FY20, 79 percent of the requested PILOTs were paid. Other cities and towns with large tax-exempt landowners should consider implementing a similar program and the state Legislature should adopt a mechanism to ensure at least some minimum payments, combined with community benefits, can be collected to cover municipal services provided. Pending bills would expressly allow cities and towns to create a program similar to Boston’s ([S.1874](#) filed by Senator Adam Gomez and [H.3080](#) filed by Representative Erika Uytterhoeven).

► **Policy Action 3.4: Connect and fund community colleges at the sub-regional level and align them to K-12 systems.** Community colleges should be governed and funded on a sub-regional basis with better integration into K-12 systems in the geographies they serve. Texas has such an arrangement, where K-12 school districts are linked to area community colleges. Texas school district voters determine the funding for their community colleges so their curriculum and workforce development programs are better aligned and meet the needs of their students.

Equity of Wealth and Health

Expand and promote the resiliency of small businesses, particularly those owned by people of color, and encourage large employers to invest in local economies and advance equity



Recommendation: Expand and promote the resiliency of small businesses, particularly those owned by people of color, and encourage large employers to invest in local economies and advance equity

Strategy 1

Strengthen and diversify the local supply chain to promote local and regional economic resiliency.

The economic disruption caused by the COVID-19 pandemic demonstrated the strengths and weaknesses of the regional economy. Although some areas of the economy faced fewer disruptions in the supply chain due to local sourcing, other elements of the economy were more vulnerable and severely affected. Growing the economy from within by leveraging the assets of the existing businesses, rather than making significant investments in attracting companies from outside of the region, is an important step toward local and regional economic resiliency. Incentivizing local sourcing creates the opportunity for local businesses to thrive and keeps more money within the local economy. Furthermore, building a more diverse local supply chain not only improves the ability for the economy to weather shocks, but also promotes operating efficiency, lowering transportation costs and associated greenhouse gas emissions.

- ▶ **Action 1.1: The Commonwealth's Economic Development Districts should develop a resiliency implementation strategy to complement the Comprehensive Economic Development Strategy.** While the supply chain needs across sectors vary widely, there are some common approaches that would benefit local and regional economies across the Commonwealth. Building off the Comprehensive Economic Development Strategy (CEDS), the Commonwealth's Economic Development Districts should develop a complementary resiliency implementation strategy. This should happen in coordination with regional economic development blueprints spearheaded by the MassHire Workforce Boards (see Policy Action 3.2 in **"Improve the accessibility and efficacy of the Commonwealth's workforce development infrastructure."**). This effort should identify specific vulnerabilities in local and regional supply chains and opportunities to bolster the role of local businesses in the regional economy. These strategies should also include discussion of how housing, transportation, and climate change

may help or hinder economic resiliency. Advisory bodies should convene to guide development of these strategies. These entities should include representatives from local governments, businesses, and educational institutions; representatives of larger corporations headquartered within or otherwise with a large presence in the region, and local artists.

- ▶ **Action 1.2: Increase supplier diversity on yearly and multi-year contracts from government and anchor institutions.** The state and local governments represent key customers throughout the region, purchasing goods and services to meet the needs of their residents. The Greater Boston Chamber of Commerce, through its Pacesetters program, has set an ambitious goal of 10 percent of all business and government contracts going to businesses of color in the Commonwealth in the next five years.¹ Cities and towns should adopt procurement policies that are in line with these goals. For example, in February 2021, the City of Boston adopted an Executive Order Establishing Equitable Procurement Goals in Support of Minority- and Women-Owned Businesses.² This executive order set a goal to award 25 percent of discretionary and contract spending to minority- and women-owned businesses (MWBs) and required the City to establish a Supplier Diversity Plan that outlines how it will achieve these goals.

Additionally, cities and towns and the Commonwealth should be required to evaluate bids more highly if they have participation from a subcontractor or contractor of color, as is the practice with the MassPort supplier diversity program. To measure the impact of these changes in increasing participation of businesses of color in local and state contracting, municipalities and the Commonwealth should be required to report on metrics around supplier diversity and the Commonwealth's Supplier Diversity office should provide guidance on such metrics. These changes must be accompanied by additional training and technical support for businesses of color, so they are able to respond to solicitations for larger contracts.

- ▶ **Action 1.3: Authorize public banking in Massachusetts and incentivize municipal investment in local financial institutions.** Developing a public bank allows local and state governments to pursue social equity in the course of a public entity's objectives and operations. Public banks operate in the public's interest, for the long-term benefit of the community, in partnership with local banks and credit unions. A public bank would hold the finances of the state or municipalities, and would issue loans to fulfill the purposes set out in the charter. In the 2021-2022 legislative session, three bills have been filed that would enable the creation of a statewide public bank: *An Act to establish a Massachusetts public bank* ([S.665/H.1223](#), filed by Senator Jamie Eldridge and Representatives Mike Connolly and Nika Elugardo) and *An Act establishing a public bank of Massachusetts* ([S.682](#), filed by Senator Adam Hinds). The Legislature should advance this legislation and cities and towns should consider whether creating public banks of their own could meet community-specific needs. In the interim, municipalities should deposit their revenue in local banks, particularly banks of which most shares are owned by people of color. This action can be tied to an agreement from the bank to provide increased flexible lending to local businesses.

1 <https://www.bostonchamber.com/economic-opportunity/pace-setters/>.

2 https://www.boston.gov/sites/default/files/file/2021/02/An%20Executive%20Order%20Establishing%20Equitable%20Procurement%20Goals%20in%20Support%20of%20Minority%20and%20Woman-Owned%20Businesses_0.pdf.

Strategy 2

Facilitate creative use of land to support emerging business sectors and respond to changing economic realities.

Downtowns, strip malls and commercial spaces are facing increased vacancy rates because of economic disruptions brought about by the COVID-19 pandemic. The pandemic has also bolstered the rise of online shopping and e-commerce activity, further hurting local storefronts that lack a digital presence. Without interventions to support more mixed-use development and flexible use of commercial space, sustained vacancies could stall a robust economic recovery. Cities and towns and the Commonwealth should take this opportunity to rethink the use of these spaces and allow for needed housing, open space, public amenities, shared commercial spaces, and creative space for emerging business sectors.

- ▶ **Action 2.1: Combat commercial vacancy by rezoning to incentivize the creative redevelopment of downtowns, business districts, and commercial spaces while instituting the appropriate commercial displacement protections and mechanisms to protect small business diversity.** Mixed-use development in downtowns, business districts, and other areas facing a surge in commercial vacancy could help foster long-term economic resiliency. By creating living downtowns and linking commercial and residential development, cities and towns can create districts with built-in economic demand. Municipalities should rezone these vulnerable commercial areas for economic resiliency. This means creating more flexibility in zoning for multiple uses and limiting the number of districts that are solely zoned for commercial use. These efforts must be paired with measures to prevent residential and commercial displacement, and site design guidelines must prioritize walkability to maximize the accessibility of these areas. Site design guidelines developed as part of a broader redevelopment effort must prioritize walkability to maximize the accessibility of these areas.

While promoting redevelopment can have ample long-term economic benefits for a community, these efforts should not come at the expense of the long-term viability of established local businesses. Nor should redevelopment foster conditions that could shut out new, small, or minority-owned businesses. Redevelopment projects should not exacerbate commercial displacement concerns, particularly in high opportunity areas near transit; rather it should encourage variety and diversity of business – factors that add to a community’s vitality. Special efforts should be made, whether through zoning or title covenants, that reserve commercial space for small and disadvantage businesses. Properties in designated small business entrepreneurial zones should possess a variety of square footage potential such that properties are ‘right-sized’ for purpose and budget. Too often, redevelopment, even in mixed use areas, is accompanied by large but sub-dividable commercial spaces; these are attractive for large chain stores but subdividing and outfitting out of reach of small business.

There are a range of policy tools local leaders can pursue to prevent commercial displacement brought on by rising rental costs. For example, the Small Business Anti-Displacement Network has presented a variety of solutions ranging from establishing real estate and community investment corporations, tax abatements, and legacy business preservation programs.³ These and other similar avenues should be pursued in tandem with a broader creative redevelopment strategy.

Looking ahead, as a complement to these zoning changes to support responsible commercial redevelopment, municipalities should also consider using financial incentives to catalyze further economic activity. Cities such as Philadelphia have encouraged the redevelopment of vacant commercial or industrial properties through tax abatements over a period of years, which are offset by the tax revenue created by new residents and commercial activity. Another complementary effort could include making publicly owned buildings available for rent by local businesses at reduced rates.

- ▶ **Action 2.2: Provide additional financial resources and technical assistance to accelerate the creation of additional cultural districts and bolster the creative economy.** The changing economic landscape and changes in the physical business landscape open an opportunity for the development of new cultural spaces in commercial districts. These spaces are particularly vulnerable to extended closures due to the COVID-19 pandemic. The state should provide targeted financial support and incentives for businesses interested in launching or locating in cultural districts. As municipalities are establishing strategies to create or reinvigorate their cultural districts, creative entrepreneurs should be involved in the redesign of these districts to facilitate the creation of needed assets to allow the creative economy to thrive. California provides one model of targeted cultural district development paired with financial assistance to cultural organizations. The expansion of this type of assistance could promote greater racial equity in cultural representation and economic opportunity through the region and state. For more recommendations around strengthening the creative economy and arts and culture sector, see **“Promote cultural development and preservation, public art and public realm design.”**
- ▶ **Action 2.3: Reduce barriers to local community-based food production and agriculture.** One of the first goals described in the Massachusetts Food Plan is to increase the production, sale, and consumption of Massachusetts-grown food.⁴ One barrier on the production side lies in current regulations that make it difficult to obtain use permits for agricultural production on open space or underutilized land. Per the recommendations of the Massachusetts State Food plan, the Executive Office of Energy and Environmental Affairs should provide technical assistance and model zoning bylaws and ordinances to facilitate local agricultural production on land, rooftops, and underutilized open space.

³ <https://antidisplacement.org/tool-kit/?strategies=commercial-preservation-and-property-improvement>

⁴ <https://mafoodsystem.org/static/plan/pdfs/MLFSPGoals.pdf>

These bylaws could also enable vertical farming to promote more compact and efficient agricultural practices. In addition to zoning changes, municipalities should adopt Right to Farm bylaws, local legislation which encourages “the pursuit of agriculture, promotes agriculture-based economic opportunities, and protects farmlands within the community by allowing agricultural uses and related activities to function with minimal conflict with abutters and town agencies.”⁵ Though traditionally an avenue for more rural communities, Right to Farm bylaws can be configured to address opportunities for urban agriculture as well. For complementary efforts related to increasing the share of local food procured in Massachusetts, see Action 4.3 in “**Ensure land preservation, conservation, and access to recreational spaces.**”

⁵ <http://www.pvpc.org/sites/default/files/files/PVPC-Right%20to%20Farm%20Bylaws.pdf>.

Strategy 3

Increase the percentage of local ownership and business ownership by people of color by increasing funding for business support and development and decreasing the cost of doing business.

In addition to facilitating more local ownership, building a resilient local economy must include direct, targeted assistance to increase the share of local businesses owned by people of color, and to ensure the long-term viability of these businesses. Communities of color have been systematically excluded from opportunities to build wealth in ways, including barriers to entrepreneurial opportunities. Small business assistance, whether in the form of support getting one's businesses online, assistance with financial management and tax preparation, or other support, must be targeted in a way to actively address these disparities. Furthermore, the economic consequences of the COVID-19 pandemic have disproportionately fallen on communities of color. To ensure a robust and equitable economic recovery and promote long-term economic resilience, municipalities and the Commonwealth must prioritize local businesses and businesses owned by people of color.

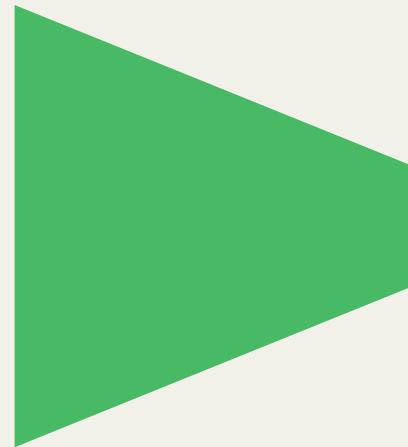
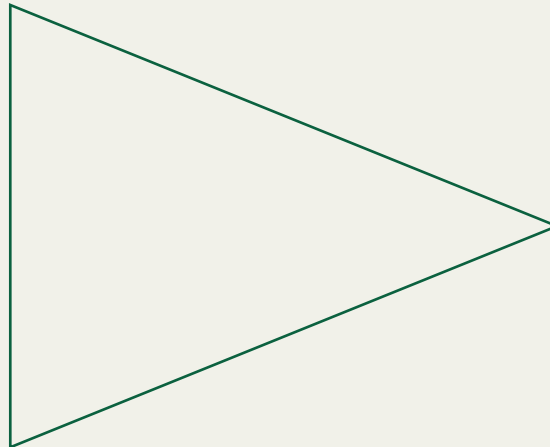
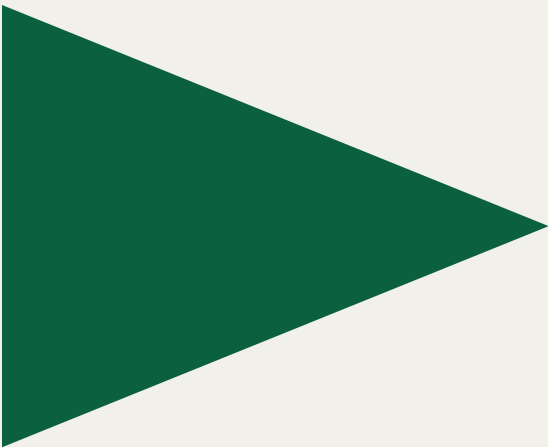
- ▶ **Action 3.1: Promote economic resiliency in a changing economic landscape by providing resources for businesses to transition employee-centered business models.**⁶ Throughout the region, many business owners are facing crucial decisions regarding the future of their companies. The option to sell a business to its employees can allow the wealth and knowledge of the company to stay in the hands of its workers. Conversion to a cooperative or an employee stock ownership plan (ESOP) requires business management training and support for the new worker-owners, as well as significant legal support. The Administration and Legislature should increase funding for the Massachusetts Center for Employee Ownership so they can expand technical assistance offerings and allow more businesses to stay in the hands of local residents.
- ▶ **Action 3.2: Create a technical assistance program designed to help small businesses adapt to changing business and customer landscapes.** Over the next 30 years, the business landscape will continue to change, with the expansion of online shopping and changes in customer preferences. Some businesses have pivoted easily when faced with such disruptions, moving their operations online and developing new products and services to respond to these changing needs. Many smaller and less well-resourced businesses have struggled to adapt. The Massachusetts Office of Business Development should create a program specifically to meet the needs of small businesses that need assistance adapting to the digital age. Tailored business coaching and support can support entrepreneurs as they transition into new, more resilient business practices. Technical assistance should be prioritized for small businesses owned by people of color and non-English speakers. Areas of support should include assistance with creating an online storefront, digital marketing, and social media communications.

⁶ Erik K. Olsen, The Relative Survival of Worker Cooperatives and Barriers to Their Creation, in *Sharing Ownership, Profits, and Decision-Making in the 21st Century*, 85 (vol. 14, Dec. 2013), available at <http://community-wealth.org/sites/clone.community-wealth.org/files/downloads/article-olsen.pdf>.

- ▶ **Action 3.3: Create a student debt relief program for entrepreneurs.** Given the existing wealth inequality in the region and the level of debt experienced by many people of color, individuals with business training and business ideas might be dissuaded from launching a business due to their level of personal debt and the high costs of health care and other basic expenses. At the federal level, House Small Business Committee Chairwoman Nydia M. Velázquez of New York filed the [Supporting America's Young Entrepreneurs Act](#), which would create a student loan debt forgiveness and deferment program for entrepreneurs. While awaiting action at the federal level, the Commonwealth should establish a program that would provide debt relief based on certain metrics or milestones completed by new businesses participating in other business support programming.

- ▶ **Action 3.4: Decrease the cost of doing business by streamlining licensing and permitting and provide small business owners resources to navigate these processes.** Regulatory processes have been adapted over time to respond to the changing business landscape. Often, new regulations are grafted on to existing ones to respond to these new realities, resulting in increasingly complex processes for small businesses to navigate. The complexity results in significant delays, as well as potentially costly measures such as hiring lawyers or permit expeditors to assist with the process. Municipalities should conduct an audit of their licensing and permitting processes to determine which requirements or processes can be consolidated or potentially eliminated based on need. To supplement this effort, the Commonwealth should have staff dedicated to provide key information about navigating local permitting and licensing processes, while also providing businesses with guidance about important decisions regarding their business development.

Inclusive Growth and Mobility
*Reduce vehicle miles traveled
and the need for single-occupant
vehicle travel through increased
development in transit-oriented
areas and walkable centers*



Recommendation: Reduce vehicle miles traveled and the need for single-occupant vehicle travel through increased development in transit-oriented areas and walkable centers

Strategy 1

Facilitate transit-oriented and other smart growth development through incentives and requirements.

All municipalities have a role to play in growing in an equitable and environmentally sustainable manner. Concentrating growth around transit stations, downtowns, high frequency bus corridors, and other smart growth areas is a critically important way to grow sustainably. Neighborhoods with housing, jobs, and shopping within walking distance to transit can reduce sprawling development and reliance on driving. These efforts should be coupled with state and local policies that prevent displacement and mitigate the rapid increase in housing costs that can come with transit-oriented development (TOD). Many communities have embraced smart growth development in context-sensitive ways. Much more can be done, however, when local, state, and regional actors take a proactive role in fostering this development.

- ▶ **Action 1.1: Strengthen existing state programs to increase smart growth development.** The Commonwealth already has programs in place to foster smart growth development, most significantly the Chapter 40R Smart Growth Overlay District program. Chapter 40R, codified in 2004, encourages communities to create dense residential or mixed-use smart growth zoning districts, including a modest percentage of affordable housing units, near transit stations, in areas of concentrated development such as existing city and town centers, and in other highly suitable locations. Over the life of the program, more than 50 districts have been created and approximately 3,800 residential units permitted/built.

The Commonwealth should build upon this success by improving the program to increase utilization of this program and the quality of development. This can be done through either modifications to the existing regulation, law, or, if necessary, through creation of an updated program to supersede the existing Chapter 40R program. Improvements to both the process and requirements of the program are needed to reduce the cost and bureaucracy involved in establishing these districts. First, Chapter 40R should clarify that its mission is not only to produce housing but also to

facilitate smart growth principles such as increasing walkability, reducing greenhouse gas emissions from transportation, and fostering a sense of place. Second, consideration should be given as to how to create true neighborhoods, since many existing districts are created for specific projects on single parcels. For example, creating a “40R lite” program could allow housing through a special permit, as opposed to only by-right. Providing this additional level of control could make communities more comfortable with creating larger districts, ultimately facilitating greater housing production. Under this program, it would be critical to establish clear criteria for the condition of a special permit, so that it is not purely discretionary. Payments to the municipality under this 40R lite program should only be for actual production of housing, rather than an incentive payment for adopting the zoning. Consideration should also be given to whether the affordability requirements should be different than those under the traditional 40R program.

Finally, increasing funding available to municipalities would further incentivize communities to adopt 40R. Increased funding should include payments associated with 40R itself, as well as for 40S, a companion program to account for increased costs associated with impacts on schools. The 40S program has been sparsely used and may require increased communication with communities, as the impact on school is an oft-cited reason for reluctance to allow additional housing.

Other state programs can also be strengthened by adding additional criteria to ensure state funding goes to sites most appropriate for smart growth development. For example, criteria for MassWorks funding decisions should focus on sites and projects that most strongly advance smart growth and equity goals. Further changes to 40R are recommended in **“Accelerate the production of diverse housing types throughout the region, particularly deed-restricted Affordable Housing, with a focus on transit-oriented, climate resilient and other smart growth locations.”**

- ▶ **Action 1.2: Incentivize higher density residential development through improvements in transit service.** The Massachusetts Bay Transportation Authority (MBTA) is continuously balancing the need to improve and expand service against the realities of allocating its limited resources. To incentivize smart growth development, transit service improvements should be dependent on embracing those strategies. With 141 commuter rail stations, 131 rapid transit stations, and numerous express bus service stops, the MBTA has considerable leverage to effect change. It has an opportunity to link its current Rail Vision initiative (which seeks to transform the commuter rail system over the long term to better support the region’s mobility and economic development), as well as its subway station areas and even some bus routes with smart growth development. This initiative would build upon the recently adopted Housing Choice policy, which requires MBTA communities to have at least one district that allows multifamily development by right. To be eligible for improvements, each community should have to allow for smart growth development in all transit-oriented and adjacent areas within a community. This requirement should allow for

mixed-use and multifamily development in context-sensitive ways, with a range of appropriate levels of density to distinguish dense, urban areas from suburban and rural areas (such as allowing multifamily and mixed-use development in urban areas and lower density townhomes and small starter homes elsewhere). Consideration should also be given to whether improvements, such as prioritization of station capital improvements, are tied to zoning versus actual built development.

- ▶ **Action 1.3: Empower an existing state or regional actor to participate directly in equitable, transit-oriented development by purchasing and disposing of land near transit to facilitate the production of affordable mixed-use and multifamily development.** The Commonwealth should empower an existing state or quasi-state agency to act as a land bank to actively seek out new opportunities to purchase land around transit stations and dispose of it to increase the supply of housing, especially affordable housing. This program’s explicit mission would be to facilitate housing production, rather than maximizing revenue. It would seek to purchase underutilized land through voluntary purchases at market rates. It would then solicit proposals to develop the land at subsidized prices to maximize development of affordable housing. While the percentage of affordable housing constructed would be based on market conditions, the Commonwealth should consider designating a minimum percentage of affordable housing that all sites developed through this program would be required. Once the appropriate entity to administer the program is determined, a sustainable funding source for land acquisition must be identified.

In addition to the above, as the MBTA continuously evaluates its needs and budget, it often seeks development of the land it owns around many of its transit stations. The MBTA should implement its previously adopted TOD policy, whereby it sells land to maximize revenue, but also to help achieve the region’s goals of increasing transit ridership, to increase the supply of deed-restricted affordable housing.¹

Best/emerging practice: Best/emerging practice: Metro Portland’s MPO (Metro) operates a program in which it buys sites around transit stations and then issues requests for proposals (RFPs) to developers to build highly affordable multifamily housing on those parcels. To accomplish this, the MPO swaps a portion of its federal transportation funds with Portland’s transit agency in order to have unrestricted funding for the purposes of land acquisition and development. Metro developed a series of investment criteria to assess which projects are best suited to advance the region’s TOD goals and meet regional needs. The program also invests in “urban living infrastructure” such as grocery stores and other amenities, and provides technical assistance to communities and developers.²

1 MBTA Transit-Oriented Development Policy and Guideline. July 2017. <https://www.mbtarealty.com/wp-content/uploads/pdf/MassDOT-and-MBTA-TOD-Policy-20170619.pdf>.

2 Metro. Transit-Oriented Development Program. <https://www.oregonmetro.gov/tools-partners/grants-and-resources/transit-oriented-development-program>.

Strategy 2

Ensure site design, land use program, and development characteristics prioritize walkability and affordability.

In addition to facilitating increased smart growth, development must occur in ways that best meet the needs of communities and the region. Too often, transit-oriented developments in our region are designed as “islands” cut off from the rest of the community, catering only to a wealthier demographic and resulting in banal development. The following policy actions can help ensure that developments prioritize multimodal travel, ensure that those most reliant on transit have access, and contribute to a neighborhood’s sense of place.

► **Action 2.1: The Commonwealth should support municipalities to update parking policies that both accurately reflect the demand for parking and encourage a reduction or elimination of parking in transit-rich areas.**

Although developers do significant research to identify appropriate parking for a new development’s location and occupants, local zoning often mandates more parking than is required. Excess parking has dire consequences because it increases housing costs, limits buildable and open space, and encourages car ownership, which can exacerbate congestion and increase greenhouse gas emissions. In areas that are accessible to frequent and reliable transit, excess parking means fewer people use the available transit, while congestion, pollution, and greenhouse gas emissions rise.

Although today’s transportation landscape offers more options than ever before, municipal parking regulations often go decades without being updated. Requirements are often uniform across an entire municipality and are rarely informed by changing market data. Almost none of these regulations account for the ways that parking needs may differ depending on development type, location, cost, or access to transit. Parking supply that is more in line with demand can lower development costs, enable more affordable housing, free up land for open space, and promote sustainable transportation.

MAPC’s research shows that parking is overbuilt throughout the region in both urban and suburban communities. Communities that adopt a more data-driven approach to decision-making are better able to respond to changing demographics, unique building characteristics, new transportation technologies, and evolving commuting practices.

The Commonwealth should further incentivize local parking reforms by creating mechanisms that allow municipalities to become eligible for certain grant funding opportunities if they make appropriate policy changes. These might include reducing or eliminating parking requirements entirely, especially in transit-rich locations, or requiring parking to be unbundled from housing costs. Municipalities that enable more opportunities for shared parking in their zoning bylaws and ordinances should also receive funding priority. This not only includes allowing residents to park in municipal off-street lots overnight, but also allowing other property owners to make their parking spaces available for rent

by residents. The state’s Housing Choice program already does this by recognizing municipalities that have reduced their parking requirements in the last five years, with no more than one parking space per unit required at multifamily sites. Similar state-level incentives for other grant programs could spur additional zoning changes to better regulate parking.

- ▶ **Action 2.2: Codify site design principles into regulations to prioritize walkability and connectivity to the surrounding neighborhood.** High quality urban design and public realm characteristics enhance an area’s walkability and sense of place and can positively impact economic development. While there is no one-size-fits-all design, municipalities can apply several principles and characteristics that do the job. These include orienting buildings to public ways, allowing a mix of uses, locating parking to the rear and sides of buildings, ensuring driveways and new roadways do not encourage high-speed vehicular travel, safe pedestrian crossings, sidewalks throughout the site, bicycle facilities, a high percentage of windows for ground-floor commercial uses, and high quality open spaces accessible to the public.

Cities and towns play a big role to ensure these high-quality development and site characteristics occur in smart growth locations. At a minimum, local zoning should be updated to allow and encourage mixed use development, including “vertical mixed-use development” (a mix of uses in the same building) and “horizontal mixed-use development” (a mix of uses across multiple buildings in a parcel). In addition to allowing for a mix of uses, zoning should include the various elements listed above as part of the requirements for site plan approval. Incorporating aspects of form-based code can clearly communicate a municipality’s expectations in a straightforward and non-subjective manner. Alternatively, advisory design guidelines can supplement zoning bylaws/ordinances and be utilized in ways that strongly encourage their incorporation for site plan approval.

On the state level, Chapter 40R currently allows for the option to include design standards. The program should be strengthened by including several high-level requirements that must be applied to all developments within a 40R district unless an applicant can show that an alternative design would better improve walkability, the public realm, or further other smart growth measures. In addition, because mixed-use zoning and design guidelines require a high level of technical expertise and expense, the state should ensure funding for technical assistance grant programs continues.

- ▶ **Action 2.3: Ensure affordability and optimize land use around transit and smart growth locations.** A significant portion of our region’s population relies on public transportation to get around. Therefore, it is critical that transit-oriented development provides housing opportunities across the income spectrum. Without policy interventions, housing around transit tends to be high cost due to its desirability and only accessible to a more affluent demographic. Municipalities, therefore, should ensure all smart growth locations within their communities apply a suite of tools to manage neighborhood change, such as requirements for inclusion of deed-restricted

affordable housing through linkage or inclusionary zoning, as well as other measures. Depending on market conditions, areas around transit should often have a higher affordability requirement than other parts of the community. See “**Ensure adequate protections against displacement for communities and residents of color, low-income communities, and renters**” for a detailed discussion of these issues and policies.

State actors also have a role by including affordability as part of the criteria for evaluating various grant funding. For example, MassWorks contains several elements for scoring applications; inclusion of affordable housing and displacement protections should be an explicit part of the scoring criteria.

Strategy 3

Require new developments to focus their transportation mitigation on producing fewer single-occupant vehicle (SOV) trips.

Development projects, especially larger ones, often require the developer to mitigate the negative impacts, with these efforts are often focused on alleviating the development’s impacts related to increased transportation demand. Traditionally, transportation mitigation focused on impacts associated with increased vehicular traffic and attempts to accommodate these increases, often through roadway widening efforts. In addition, traffic modeling and projections often overstate vehicular impacts on surrounding communities. A better approach to reducing congestion spurred by new development is to focus on reducing SOV trips through the utilization of improved data, combined with stronger transportation demand management techniques and the implementation of Complete Streets strategies.

► **Action 3.1: MassDOT and the Department of Environmental Protection should require developers to use local data to accurately estimate vehicle trip generation to avoid overestimating impacts.** To forecast trip generation as part of local and state permitting, developers most frequently cite models established through the Institute of Transportation Engineers (ITE), which provide vehicular trip estimations based on a development’s size and land use. From a regulatory perspective, ITE is nearly irrefutable because it is peer tested and reviewed. In the words of transportation consultants, “ITE is the gold standard.”³ However, the bulk of ITE’s data is from suburban, automobile-oriented locations across the country with relatively unconstrained parking availability and mostly single land uses (i.e., land zoned for only one type of use).⁴ The models reflect these contexts and are, therefore, ill-suited to urban areas well served by transit and active transportation infrastructure.

As a result, ITE routinely overestimates trips generated by new development in Greater Boston communities by 25-35 percent or more.⁵ This overestimation often results in mitigation focused on wider intersections and other roadway changes that come at the expense of pedestrians and cyclists. Additionally, this overestimation of auto trips exacerbates local

3 MAPC (2019). Roundtable with Transportation Consultants.

4 ITE (2018). Trip Generation Manual: 10th Edition.

5 MAPC (2019). Analysis of Massachusetts Trip Generation Estimates and Observed Counts.

opposition to new development, which can lead to smaller development sites with fewer housing units and less density in areas that are well suited for smart growth.

Therefore, MassDOT should develop a database derived from the actual post-development trip counts based on similar projects in similar areas to better forecast future trip generation rates, and more accurately account for walking, biking, and public transit trips. This data would more accurately capture actual travel habits within urbanized parts of Massachusetts than do national models. Similar undertakings have occurred in San Francisco, California,⁶ Washington, DC,⁷ and Houston, Texas.⁸ It is feasible to amass information on land use, project size, and trip generation projections and actual counts at the local level because the data already exists; all Massachusetts Environmental Policy Act (MEPA)-reviewed projects must include traffic monitoring commitments. MassDOT is the most appropriate state agency to monitor and maintain the proposed database. In addition, partnering with ITE to build, maintain, and analyze this database would lend projects additional credibility. In the meantime, with support from MAPC and the Central Transportation Planning Staff (CTPS), MassDOT should submit post-development trip count information to ITE for projects as they come online, as this will help to strengthen national estimates.

- ▶ **Action 3.2: The Executive Office of Energy and Environmental Affairs should require new development sites that trigger MEPA to measure their transportation impacts based on vehicle miles traveled (VMT).** Current development review practices characterize transportation impacts using inherently auto-centric level of service (LOS) metrics, which describe vehicular flow and driver delay. Incorporating a more holistic metric that measures the impact of driving will better align transportation impact analysis and mitigation outcomes with the Commonwealth's goals to reduce greenhouse gas emissions, encourage infill development, and improve public health through more active modes of transportation. Measuring transportation impacts using VMT would require communities to consider how to shift transportation from dependence on single-occupancy vehicles to other modes of transportation to reduce VMT.

In Massachusetts, placing less emphasis on LOS would require a shared understanding that reducing VMT is necessary to attain the Commonwealth's Global Warming Solutions Act and Next Generation Roadmap Act goals. The Executive Office of Energy and Environmental Affairs could use its regulatory authority under the Global Warming Solutions Act, or the Legislature could follow California's example by explicitly tying transportation-related greenhouse gas emission goals to new development under MEPA regulations (see below). To supplement this effort, as part of the local permitting process, municipalities should pass ordinances requiring all future developers to characterize and mitigate transportation impacts focused on reducing VMT.

6 https://default.sfplanning.org/publications_reports/TIA_Guidelines_Travel_Demand_Memo.pdf.

7 <https://nelsonnygaard.com/wp-content/uploads/2014/04/2014-01-Urban-Trip-Generation-Final-Report.pdf>.

8 https://bigreddog.com/wp-content/uploads/2019/01/BRD_Small-Data-Local-Trip-Generation_Dan-Hennessey.pdf.

Best/emerging practice: Prompted by legislation passed in 2013, California adopted final rules in 2019 replacing LOS with VMT to measure impacts during Transportation Impact Analyses under the California Environmental Quality Act (CEQA).⁹ CEQA requires that municipalities establish a threshold at which additional VMT from a project requires environmental mitigation. California defines the threshold using a statewide emissions target. The California Office of Planning and Research has released materials that provide guidance on establishing reasonable thresholds and prescribing mitigation in line with the state’s climate, public health, and transportation goals.¹⁰ California anticipates that replacing LOS with VMT will help advance development that is more transit-oriented, walkable and bikeable, sustainable, and healthier.

► **Action 3.3: The Legislature should allow municipalities to require employers to reduce the VMT by their employees.** Mitigating the transportation impact of growth occurs when new development sites go through local or state permitting processes. Requiring employers and large property owners to fund incentives to reduce auto travel to and from these sites is challenging. Therefore, the Legislature should allow municipalities to require new VMT reduction strategies for existing employers through local ordinance.

The Department of Environmental Protection’s Rideshare Program requires that businesses with 1,000-plus commuters and/or businesses with 250-plus commuters that are subject to the Massachusetts Air Operating Permit Program must provide the following trip reduction incentives: ride matching (carpool and vanpool), preferential carpool and vanpool parking, bicycle incentives, on-site transit pass sales (only employers within one mile of transit), on-site route and schedule information (only employers within one mile of transit) and negotiation with transit providers for additional bus and/or transit services (only employers within one mile of transit).¹¹

A shortcoming of both these requirements is that regulations pertain only to large-scale developments or employers. Therefore, municipalities should be allowed to enact local ordinances to decrease VMT from other local employers. For example, this could include regulations that require businesses with 20 or more employees to offer (1) a pre-tax benefit - a monthly pre-tax deduction, up to \$260/month, to pay for transit or vanpool expenses or parking cash out, (2) an employer-funded monthly subsidy for transit or vanpool expenses equivalent to the price of the MBTA’s monthly Link Pass, or (3) employer-provided transportation – a company-funded bus or van service to and from the workplace. To offset the disproportionate impact on small businesses, the state could offer financial support to promote compliance.

Washington, DC,¹² Seattle, WA,¹³ San Francisco, CA,¹⁴ New York City, NY,¹⁵ and the state of New Jersey¹⁶ have commute trip reduction laws directly tied to statewide air quality management regulations and require businesses with 20 or more employees to comply with more stringent TDM requirements.

9 Vehicle Miles Traveled (VMT) is the amount of automobile travel in a given area over a period of time. VMT is calculated by multiplying the number of vehicle trips that a proposed development will generate by the estimated number of miles driven per trip. In the context of SB 743, VMT is the amount of automobile travel attributable to a project or plan.

10 <http://opr.ca.gov/ceqa/updates/sb-743/>

11 <https://www.abettercity.org/docs/Effective%20TRO%20Final.pdf>

12 Sustainable DC Omnibus Amendment Act of 2014.

13 Seattle Community Benefits Ordinance; Commute Trip Reduction Law (1991).

14 San Francisco Commuter Benefits Ordinance (2008).

15 NYC’s Commuter Benefits Law (2014).

16 S1567: Statewide Commuter Benefits Law.

The City of Santa Monica,¹⁷ Berkeley, and Richmond¹⁸ require compliance from businesses with ten employees or more. Locally, the City of Cambridge's Parking and Transportation Demand Management Ordinance is a strong example because it includes robust staff oversight and enforcement.

- ▶ **Action 3.4: The Legislature should allow a municipality or groups of municipalities, to pool mitigation funding for multiple development sites and across municipal boundaries to support public transit infrastructure and cycling/walking trails.** A regional mitigation fund (RMF) is a mechanism used to levy and pool mitigation payments from multiple developments over time and sometimes across municipal boundaries. Private development and mobility are inherently connected. A development's success hinges on access to the site, so transportation systems must be able to accommodate the changes in vehicular, foot, and bike traffic associated with redevelopment. RMFs pool payments over time and across developments to enable larger-scale improvements to public transit systems or roadways, accounting for future growth. In California, payments are developed in accordance with the California Mitigation Fee Act, which requires the county entities administering the fees to update them periodically. This ensures they are aligned with future growth projections, project costs, and other factors.¹⁹ In Massachusetts, RMFs could serve as a mitigation requirement triggered by MEPA review or through local permitting processes. Funds should be prioritized for projects that will expand walking, biking, and public transit infrastructure in the Commonwealth. Mitigation payments from new development could then be used in high priority development areas to ensure expanded bus service and other transit modernization without placing the financial burden of providing increased transit service on the MBTA or RTAs. Similarly, RMFs could be used to improve pedestrian and cyclist mobility by expanding trail networks. MAPC can assist in this effort by connecting with municipalities to gauge interest in pursuing this funding mechanism and learning more from states and cities that have successfully harnessed RMFs to recognize the link between private development and transportation accessibility. The Kendall Square Transit Enhancement Program, a partnership between the City of Cambridge, MBTA, MassDOT, and Boston Properties (the developer) to facilitate the approval for one million square feet of development in Kendall Square,²⁰ may serve as a model for this type of approach.

17 Santa Monica Municipal Code, Article 9, Division 6, Chapter 9.53

18 City of Berkeley Commuter Benefit Program Ordinance MC 9.88 (TRACCC); as nestled in California Health and Safety Code Section 40717.

19 https://leginfo.ca.gov/faces/codes_displayText.xhtml?lawCode=GOV&division=1.&title=7.&part=&chapter=5.&article=

20 <https://www.cambridgeredevelopment.org/kendall-transportation>.



Recommendation: Address regional water challenges

Strategy 1

Establish a Massachusetts Integrated Water Resources Management framework at watershed and ecosystem scales that advances from philosophy to comprehensive water policy, funding, and regulation.

Integrated Water Resources Management refers to an approach that coordinates across the major water sectors, including water supply, wastewater, and stormwater. Traditionally, these have been managed in “silos” that are artifacts of separate laws and funding sources, such as the Safe Drinking Water Act, the Clean Water Act, and the “MS4” Stormwater Permits. Administratively, both the US Environmental Protection Agency (EPA) and Massachusetts Department of Environmental Protection (MassDEP) are structured along the lines of these sectors. Integrated Water Resource Management facilitates to optimize solutions that achieve multiple benefits across these sectors.

Over the last 20 years, Massachusetts has developed several forward-looking water policy initiatives, but not an overall integrated water management framework. These include the Watershed Initiative led by the former Executive Office of Energy and Environmental Affairs (EEA), the Integrated Water Management Planning Guidelines proposed (but not implemented) by MassDEP, the Water Assets Study prepared by EEA, and the current Sustainable Water Management Initiative (SWMI). The Watershed Initiative provided the most comprehensive framework, organized into teams for each major watershed and engaging stakeholders from state agencies, municipalities, and NGOs. It showed much promise until it was abruptly terminated before being fully implemented. SWMI, the most recent initiative, is based on robust watershed science provided by the US Geological Survey that was not available just a decade ago. However, its focus on groundwater withdrawals and impervious cover limits its ability to serve as a truly integrated water management framework. By revisiting, updating, retooling, and coordinating these initiatives under a broad integrated framework, and adding a focus on equity and climate change, Massachusetts could bring water management fully into the 21st century.

► **Action 1.1: Perform a statewide comprehensive analysis of the state's watersheds and existing programs to evaluate options for managing water at the ecosystem level, across water sectors (drinking water, wastewater, and stormwater), and through the lens of climate change projections and impacts and equity.** The analysis will identify data gaps, evaluate watershed and ecosystem level interventions toward management, and analyze impacts of climate change precipitation projections on drinking water supply, pollution, ecosystem function, and water utility infrastructure. The plan should create design standards and efficiencies that enable natural and hard water utility systems to function for climate resilience while complying with the Clean Water Act, as well as identify dam removal opportunities that enhance ecosystem function and flood control for best water management practices. It should also use projections to identify the amount of green infrastructure that effectively recharges aquifers, reduces/eliminates stormwater runoff, and supports healthy freshwater and marine systems at the watershed and/or water catchment level.

► **Action 1.2: Based upon the results of a comprehensive watershed analysis, create an Integrated Water Resources Management (IWRM) plan for the Commonwealth that outlines regulations and policies across jurisdictions and state agencies.** Using the information gathered from the statewide analysis of the current state of existing watershed management programs, the Commonwealth should devise a framework for an Integrated Water Resources Management plan. The IWRM should begin on a pilot basis, focusing on one or two of the highest stress watersheds, then apply lessons learned to other areas of the state. Priority should go to watersheds with high Sustainable Water Management Initiative (SWMI) designations and significant Total Maximum Daily Loads (TMDL).¹ This process should include ongoing coordination with regional and statewide watershed stakeholders.

The MA Executive Office of Energy and Environmental Affairs (EEA) would be responsible for directing implementation across sectors and departments (e.g., MassDEP, Department of Conservation and Recreation, Department of Energy Resources, Water Resources Commission, Water Infrastructure Advisory Committee, etc.). The plan would manage water at the water catchment/ecosystem level, across utilities (drinking water, wastewater, stormwater, and water use), and through the lens of climate change projections and impacts and water equity. Following the United Nations standards for Integrated Water Resources Management, the Commonwealth should create, evaluate, and track benchmarks for degrees of success across sectors and institutions. The benchmarks will promote positive social, economic, and environmental impacts at the watershed and multi-jurisdictional levels.

► **Action 1.3: Create institutional arrangements such as intermunicipal or district/watershed agreements for implementation of the Integrated Water Resources Management Plan.** The Commonwealth should provide technical assistance to address existing stormwater management deficiencies and support the development of new infrastructure aligned with the Integrated Water Resources Management Plan. Following the development

¹ The Sustainable Water Management Initiative (SWMI) is a science-based framework that evaluates watershed and fishery impacts from streamflow alterations and water withdrawals.

of an IWRM Plan, the Commonwealth should be prepared to furnish technical assistance and facilitate agreements to support implementation of the plan's recommendations. In these intermunicipal or district/watershed agreements, all water-related infrastructure improvements and projects would utilize the framework of the IWRM Plan and permitting approvals would be contingent upon adherence to the plan. To support implementation and regional collaboration, the Administration should establish regional watershed grant programs to incentivize collaboration and intermunicipal agreements. At the same time, the Commonwealth should provide resources to cities and towns to support implementation of IWRM locally. Alongside support from regional planning agencies, this should include creating accessible databases and GIS tools to plan, monitor, and enforce performance requirements.

- ▶ **Action 1.4: Devise a consistent, science-based approach to coordinating local management of drought on a watershed basis.** The Massachusetts Drought Management Task Force has made significant progress, including an updated state Drought Management Plan in 2019, but the state still lacks authority to broadly implement water use restrictions during times of drought. Consistent regional, watershed and/or statewide measures are necessary to avoid confusion, create equity, and protect water supplies. An Act relative to maintaining adequate water supplies through effective drought management ([S.530/S.617/H.898](#), filed by Senators Jamie Eldridge and Bruce Tarr and Representative Carolyn Dykema) would establish a statewide drought task force and enable EEA to pursue statewide water conservation measures. To ensure these measures also happen at the local level, the Commonwealth should provide resources for cities and towns to implement water system-specific drought plans that take regional watershed conditions into account. These plans should provide flexibility for developing redundancy to allow water withdrawals to shift away from more impacted sources during droughts.

Strategy 2

Create sustainable funding sources for water infrastructure that enable an Integrated Water Management approach and support investments in water quality and quantity and climate resilience, with a particular focus on equity.

The Water Infrastructure Finance Commission's report to the Legislature projected a then \$21.4 billion funding gap for water (drinking water and wastewater) infrastructure investment statewide over 20 years.² It should be noted that this report is now almost a decade old, and the needs have likely increased in the interim. There was uncertainty about the costs for stormwater because the MS4 permit had not been issued, but the Commission estimated unfunded stormwater needs at an additional \$18 billion. The Commission considered various scenarios to reduce the funding gap over the next 20 years. The scenarios assume a range of \$50 million to \$200 million annual capital contributions by the state, paired

² Legislative Commission on Water Infrastructure Finance, 2012.

with a range of local water and sewer rates from 0.75 percent to 1.25 percent of Median Household Income. The commission proposed that the then \$21.4 billion funding gap could disappear within 20 years with a \$200 million annual capital contribution by the state along with local water and sewer rates equivalent to 1.25 percent of median household income. These estimates do not take into consideration any federal funding (water infrastructure investments are an eligible use of American Rescue Plan Act funds). Achieving this result would require a partnership that shares the costs between the state and the municipal water systems. The proposed Blue Bank described below builds upon and revamps this concept by leading with Integrated Water Management, climate change resiliency, and equity.

- ▶ **Action 2.1: Create a Blue Bank, a statewide water infrastructure bank to provide adequate capital investment for municipal and regional water supply, wastewater, stormwater, and green infrastructure.** Following on the recommendations of the Massachusetts Water Infrastructure Finance Commission for a Massachusetts Water Trust Fund, a Blue Bank would supplement the existing State Revolving Fund (SRF), which has proved insufficient to meet infrastructure improvement needs across the Commonwealth. A Blue Bank would fund projects that implement the Integrated Water Management framework, and inherent to this concept is that equity and green infrastructure are primary and fundamental to water infrastructure. Blue Bank funds should also be prioritized to address per- and polyfluoroalkyl substances (PFAS) contamination. The Commonwealth should ensure participation of all affected stakeholders in developing a Blue Bank, including municipalities, water and wastewater utilities, watershed groups, water users, and others.

Initially, a Blue Bank could be capitalized using federal recovery or infrastructure funding. Long-term, funding sources for a Blue Bank could include water rates, fees imposed for non-essential outdoor watering violations, the state match to the SRF, and state infrastructure bond funds. Water rates should be structured to meet three goals: (1) affordability, (2) encourage conservation, and (3) include the true cost of water, including environmental and sustainability costs. Water rate structures should not put environmental mitigation in opposition to affordability, but accommodate both, either by subsidizing water costs for some users, reducing costs for minimum daily usage, and/or increasing costs for excessive levels of water use.

- ▶ **Action 2.2: Mainstream the implementation of local and regional Stormwater Enterprise Funds or Stormwater Utilities.** Stormwater traditionally has no dedicated local revenue source to maintain and improve the infrastructure. Municipalities may establish local Stormwater Enterprise Funds under state law, but to date only about 15 cities and towns have done so, about half of which are in the MPAC region. Barriers toward implementation are often pushback on instituting new fees and taxes at the municipal level. EEA should work with cities and towns to identify strategies to reduce these barriers and enable more widespread use of enterprise fees. Widespread

adoption enables water quality advancements, water quantity baselines, and resilience to climate change extreme precipitation events. Statewide, this would help close the overall funding gap identified by the Water Infrastructure Finance Commission, as described below.

- ▶ **Action 2.3: Pass state enabling legislation to expand use of water banking as a tool to increase water efficiency and accommodate growth in existing systems.** Water banking entails levying a small fee on new development to capture the impact it has on local water infrastructure and to make necessary improvements. A handful of communities, including Danvers and Weymouth, have implemented Water Banking, but many communities are hesitant to employ this important tool without state enabling legislation. The Legislature should pass [S.2499/H.2152](#), An Act providing for the establishment of the sustainable water resources fund, filed by Senator Jamie Eldridge and Representative Carolyn Dykema. The bill would make explicit the authority of cities and towns to leverage a fee on new development dedicated to a Drinking Water Infrastructure Enterprise Fund.

Strategy 3

Strengthen and expand tools for minimizing and eliminating water pollution.

In addition to supply, water quality is a critical issue for the Commonwealth and cities and towns to address. As is the case in other regions, there are several sources of water pollution, but the primary challenge in Massachusetts is related to stormwater runoff. The Massachusetts Clean Water Trust is a state agency that works to improve water quality in the Commonwealth by providing low-interest loans to municipalities and other eligible entities. The Clean Water Trust provides several targeted funding programs designed to address various issues that affect water quality, including lead abatement programs, asset management planning grants, and community septic management. PFAS, a family of chemicals widely used to manufacture common consumer goods, are of increasing concern. The Clean Water Trust recently awarded \$3 million in PFAS mitigation grants to cities and towns to reduce the presence of this substance in our water supply. Managing water quality issues is a complicated and ever-evolving challenge, but there are actions the state and cities and towns can take to ensure a consistent clean water supply in the future.

- ▶ **Action 3.1: Ensure existing statewide conservation programs require a program for restoration of degraded wetlands, waterbodies, and aquatic habitat to accelerate natural solutions to climate change and minimize water degradation.** Natural lands in themselves are an effective defense to minimize water pollutants through runoff. However, lands for parks and open space often contain degraded ecosystems with invasive species, compacted soils, or degraded wetlands. Utilizing existing conservation programs to require a restoration plan accelerates natural solutions to climate change and minimizes water quality degradation. All EEA grants related to conservation, parks, and open space (LAND, PARC, LWCF,

Landscape Partnerships, Community Partnerships) and other conservation programs (Community Preservation Act, Conservation Restrictions) should require natural system restoration plans that support an integrated water management approach for climate resilience, clean water, and ecosystem health.

Best/emerging practice: The California Water Resilience Portfolio implements the existing “Make Conservation A Way of Life” laws (SB 606 and AB 1668, 2018), which create new efficiency standards for residential use and reporting requirements for agricultural use.³ The portfolio of actions was selected and designed to ensure the state’s long-term water resilience and ecosystem health. This blueprint will help California become more resilient to the growing threats posed by extreme droughts and floods, rising temperature, increased reliance on groundwater, and other climate related challenges.

- ▶ **Action 3.2: Operationalize green infrastructure and low-impact development across the Commonwealth for an interconnected and integrated stormwater management strategy by requiring that all new and redevelopment capture and/or retain stormwater on-site at the parcel level.** Enforcement of stormwater regulations occurs through the site plan review and building permit process. In 2012, Boston Water and Sewer Commission (BWSC) filed a consent decree settlement with the EPA, the Department of Justice, MassDEP, and the Conservation Law Foundation to enhance its ongoing efforts to comply with the Clean Water Act and to clean and revitalize Boston Harbor and its tributaries, including the Charles, Neponset, and Mystic Rivers. As such, BWSC mandates all new and redevelopment must capture the first inch of stormwater onsite at the parcel level and enforces it during permitting. In 2016, EPA issued the Massachusetts Municipal Storm Sewer System Permit, which requires most cities and towns to implement similar requirements through local bylaws and ordinances. Local regulations should require redevelopment projects to match peak runoff rates to undeveloped conditions to the maximum extent practicable, rather than matching existing (degraded) conditions. In some stormwater systems, older grey infrastructure (such as dams, seawalls, pipes, and water treatment plants) will complement newer green infrastructure. The Commonwealth should ensure cities and towns have adequate resources to upgrade and/or maintain the grey infrastructure components to ensure effective performance of the entire system and to protect water quality.
- ▶ **Action 3.3: Update the Commonwealth’s land use regulations, including the Wetland Protection Act, and provide municipalities resources to update zoning laws to reflect climate change projections related to sea level rise, flooding, and precipitation changes.** Updates to land use regulations should maximize climate change resiliency measures, such as flood protection, clean water, and minimized stormwater in concert with the Integrated Water Resources Management plan. As a first step, the Commonwealth

³ https://waterresilience.ca.gov/wp-content/uploads/2020/07/Final_California-Water-Resilience-Portfolio-2020_ADA3_v2_ay11-opt.pdf.

should update the Wetland Protection Act to ensure it continues to follow the most up to date climate projections and centers on the needs of Environmental Justice communities.

Additionally, given that most land use and zoning powers rest with municipalities, the Commonwealth should provide them with technical assistance and incentives for the adoption of “water smart” land use policies and regulations. This includes zoning changes that enable sustainable and “smart growth” land use policies to address sources of water quality and water quantity impacts, particularly reduction of impervious surfaces. State policies and regulations should support the adoption of best practices such as local subdivision controls on wetland, floodplain, water quality, and water quantity protection, as well as reducing impervious surface to minimize stormwater runoff. For example, local subdivision bylaws should require that all runoff and stormwater be infiltrated at the parcel level and require drought tolerant and native species plantings. Calculation of runoff volumes should be based on updated precipitation data, as well as climate projections of more intense and larger storms in the future.

- ▶ **Action 3.4: Prioritize infrastructure improvements to existing stormwater systems to accommodate the impacts of climate change, including more frequent and intense precipitation, inland flooding, and sea level rise in coastal communities.** The threat of climate change is already taking a heavy toll on the region, and we need to invest in resilient water infrastructure now to minimize the impacts to the extent possible. As the Commonwealth devises an IWRM Plan and directs additional funding for water infrastructure improvements, priority should go to investments in areas that are most likely to see the effects of climate change today. This includes more frequent and intense precipitation, inland flooding, and sea level rise in coastal communities. Environmental Justice communities, which already face an undue share of environmental burdens and associated economic and public health consequences, should also receive priority. For more details on how the Commonwealth can prioritize these investments, see Action 2.2 in **“Prepare for and respond to the threats of climate change.”**

Strategy 4

Ensure all communities have access to safe, clean, affordable drinking water and wastewater services.

The drought of 2016 was the second worst in Massachusetts history, and climate change projections of increasing temperatures and changing precipitation patterns indicate that drought will likely be a more frequent and severe event. In 2019, the state updated its Drought Management Plan, revamping categories of drought stages, revising drought tracking status, and modifying indicators of drought stage declaration. Less than six months after its adoption, Massachusetts announced drought conditions in the spring of 2020 in several regions. The Southeast region and the Charles River watershed were the most affected areas of the 2020 drought.

One indicator of the stress on local water supplies is the prevalence of water use restrictions declared by municipal water suppliers. These restrictions are more frequent and severe during periods of drought. During the drought of 2016, eastern Massachusetts, including much of the MAPC region, had the highest concentration of restrictions, particularly in the highest category of one day or less of outdoor watering per week. Although water restrictions are less frequent in the core of the MAPC region, which is served by the Massachusetts Water Resources Authority (MWRA), water is a common resource that needs to be managed across all municipal boundaries and watersheds. Water restrictions illustrate the limits of many local water systems outside of the MWRA service area, which rely on groundwater and surface water withdrawn from local aquifers and relatively small watersheds. There are several actions the Commonwealth and municipalities can take to get ahead of future droughts and to ensure equitable access to clean water supply.

- ▶ **Action 4.1: Create a water equity commission to ensure clean, healthy, and plentiful water systems in underserved communities.** The Commission would coordinate with the Blue Bank to prioritize water quality and quantity investments in underserved and overburdened communities. A newly created water equity commission would be designed to shift the decision-making authority to those affected most by water disparities. It would coordinate with the Blue Bank (see Action 2.1 above) to prioritize water quantity and quality investments in underserved communities, including but not limited to green infrastructure for greening cities for health, water quality, and climate resilience. It would also ensure that water and sewer rates are structured equitably. In addition, the commission would identify strategies to prioritize the provision of water supply and wastewater services to support affordable housing. The commission should identify consistent metrics, such as gallons of water used per person per day, to ensure uniform evaluation of water use.

Water equity refers to just and fair inclusion – a condition in which everyone has an opportunity to participate and prosper. Water equity occurs when all communities have access to safe, clean, affordable drinking water and wastewater services; are resilient in the face of floods, drought, and other climate risks; have a role in decision-making processes related

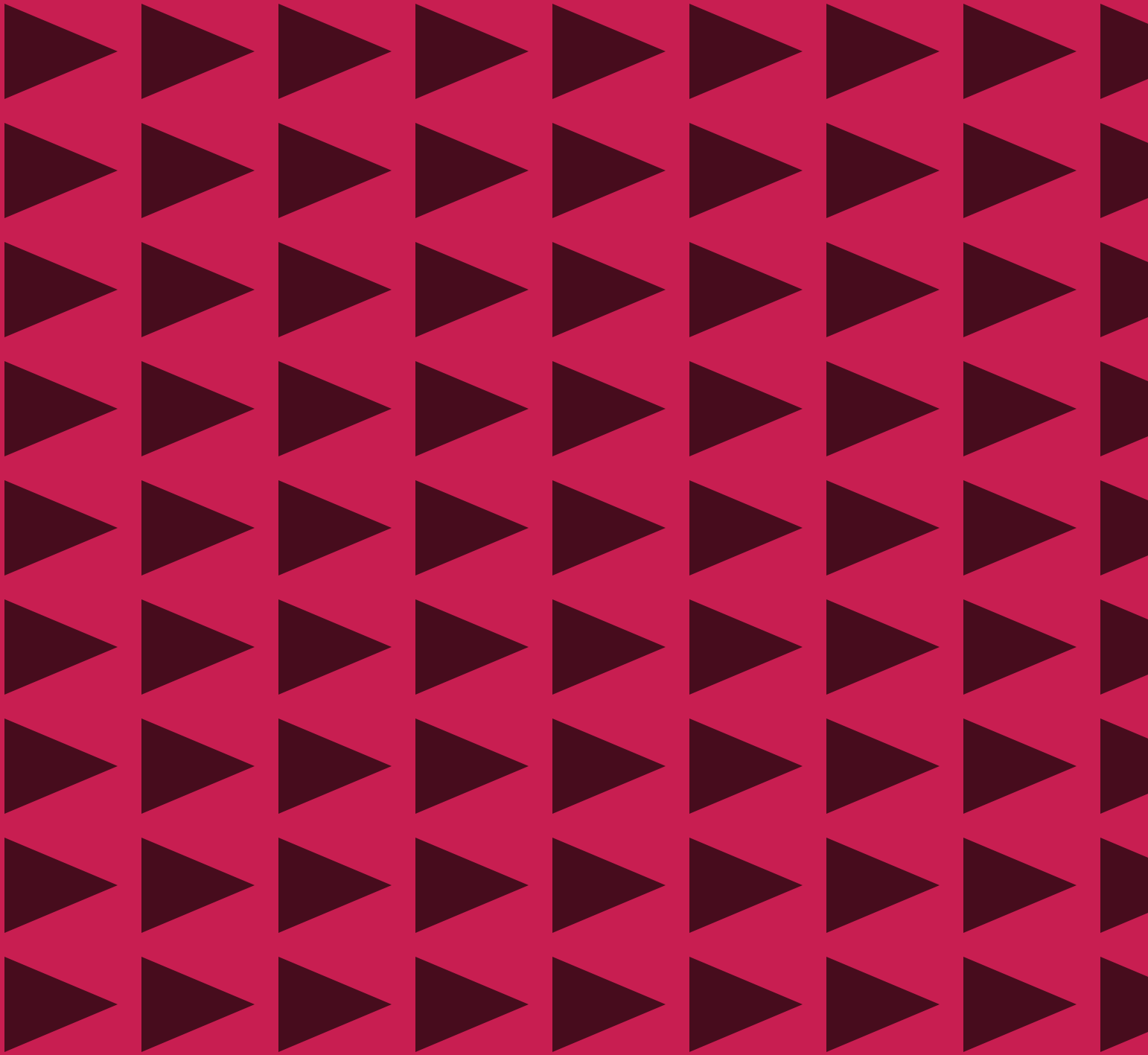
to water management in their communities; and share in the economic, social, and environmental benefits of water systems. Other essential aspects of water equity include access to water-based open space and recreation areas, such as rivers, streams, and coastal waters. For more information on promoting equitable access to open space in the region, see “**Ensure land preservation, conservation, and access to recreational spaces.**”

- ▶ **Action 4.2: Advance a regional approach to water distribution and management to ensure equity in water quality and quantity.** Efforts to regionalize must be made in the context of local land use policies that foster smart growth rather than sprawl. Water is the most important natural resource shared across jurisdictions. However, water’ distribution and supply are not equitable everywhere. Aged infrastructure contributes to water inequity, particularly for disinvested or low-income cities. Neglected neighborhoods are more likely to have water quality issues and deteriorating infrastructure, and low-income communities may have difficulty replacing infrastructure due to costs. For example, since 2018, the City of Chelsea has been working to replace its water infrastructure to eliminate lead pipes.

There are also significant regional differences in water availability. The Ipswich River watershed, for example, is more stressed than most other parts of the state. In some cases, regional approaches such as interconnections with less stressed water systems or a regional solution such as the MWRA may alleviate stressed watersheds and/or inequity in supply. However, such connections should incorporate local land use policies that foster smart growth rather than sprawl. A series of centralized drinking water systems with strategically planned improvements and the direct involvement of leaders that represent the neighborhoods and communities served by the system will create more drinking water equity, provide water supplies to stressed watersheds to support healthy ecological systems and climate resilience, and minimize localized supply stress from drought.

- ▶ **Action 4.3: Significantly reduce and/or eliminate non-essential outdoor water use wherever and whenever possible.** Non-essential outdoor water use should be charged at higher rates, and use of second water meters for outdoor use should be restricted, or their rates should be set higher than those for essential water use. Non-essential water use does not include food production, nurseries and other uses of water as part of a business operation; for the most part it is irrigation of lawns and landscaping. Non-essential outdoor water use should be charged higher rates, with proceeds directed to the Blue Bank (Action 2.1) watershed fund or other grants for water quality/quantity equity programs in communities underserved by clean and plentiful water. Outdoor watering puts stress on both water supply systems and the surface and groundwater sources they rely upon, which can lead to impacts on stream flows that affect entire watersheds and the health of their supporting ecological systems. In the MAPC region, the Ipswich River watershed is perhaps the most notable, but not the only example of seasonal low flow stress.

- ▶ **Action 4.4: Support community efforts for public education and local policies and programs that directly or indirectly reduce water use in more natural ways.** There will inevitably be resistance to measures to reduce nonessential water use. To confront these challenges, cities and towns need to be prepared to collaborate with community groups and volunteers to educate residents on the benefits of more mindful water consumption and strategies for reducing water use. There are some efforts municipalities can pursue on their own, such as revising lawn mowing requirements. Cities and towns can also encourage residents to pursue xeriscaping, which is the practice of designing landscaping that reduces or eliminates the need for water. Cities and towns should identify local entities, such as conservation commissions, groups of committed volunteers, or other organizations, to support these public awareness and education campaigns.



Recommendation: Enable wealth creation and intergenerational wealth transfer

Strategy 1

Enable more people to build and maintain wealth.

Nationwide, economic mobility has been on the decline for decades. While this trend is evident across the several ways in which people build wealth, including savings, real estate, and investments, it is particularly true with respect to earnings. The proportion of Americans making more than their parents dropped from 92 percent for individuals born in 1940 to 50 percent for individuals born in 1984.¹ There are a multitude of factors that have influenced these outcomes, including skyrocketing housing and higher education costs, consolidation of corporate power, wage stagnation, and disintegration of the social safety net. Systemic racism has catalyzed and exacerbated these trends.

In the Commonwealth, the ability to secure a well-paying job, build adequate savings, and gain access to a range of economic opportunity continues to vary sharply across racial lines. While 70 percent of White households in Massachusetts own a home, just over a third of households of color are homeowners. Non-white households are more likely to have student loan and medical debt. And there is the oft-cited disparity of median net worth being close to a quarter million for white households in Metro Boston, but just \$8 for non-immigrant Black households in the region.^{2,3} In addition to burdens at the individual and community levels, disparities in racial wealth hurt the economy of the Commonwealth as a whole. The Massachusetts Taxpayers Foundation estimates that if Massachusetts were to close racial divides in wages, housing, investments, and wealth, the Massachusetts gross state product could increase \$25 billion over five years.⁴ By limiting the ability to build wealth today, we are setting up future generations for continued inequities in the absence of significant reform.

In addition to the actions described below around increasing wages and access to benefits, expanding the availability of high-quality jobs is also critical to addressing racial disparities in wealth generation and quality of life. Since low-income individuals are disproportionately employed by small businesses,⁵ strengthening the resiliency of small businesses and promoting their integration to the broader regional economic development landscape will benefit their employees as well. (See “**Expand and promote the resiliency of small businesses, particularly those owned by people of color, and encourage large employers to invest in local economies and advance equity**” for specific recommendations.) Additionally, more flexible schedules and more predictable work hours would not only help more

1 https://www.nber.org/system/files/working_papers/w22910/w22910.pdf.

2 <https://www.bostonfed.org/publications/one-time-pubs/color-of-wealth.aspx>.

3 A recent study by the Federal Reserve Bank of Boston found that, when considering pensions and Social Security, the racial wealth gap narrows significantly. However, on average, White families still have on average three times as much as wealth Black families. While the methodologies for measuring wealth vary, studies consistently demonstrate a persistent racial wealth gap in the region. <https://www.bostonfed.org/news-and-events/news/2021/08/racial-wealth-gaps-shrink-using-new-measure-accounting-to-boston-fed-study.aspx>.

4 https://masstaxpayers.org/sites/default/files/publications/2021-05/ClosingtheRacialDivide-FLNAL_0514.pdf.

5 <https://www.gallup.com/education/309911/characteristics-good-jobs-low-income-workers.aspx>.

people retain employment while balancing additional responsibilities, but also improve overall quality of life. (See “Improve quality of life and reverse the rising rate of chronic diseases, particularly among populations experiencing health inequities” for more details on how to offer more workers this kind of stability.)

► **Action 1.1: Institute a statewide pilot of guaranteed income and a baby bonds program.** The COVID-19 pandemic has renewed momentum for universal basic income (UBI), which provides individuals with a small, fixed amount of unrestricted cash provided on a regular basis. Proponents of UBI highlight the flexibility of the relief provided as a primary benefit of the program. Unlike other forms of aid, which recipients can use for specific purposes such as education, housing costs, or groceries, UBI programs provide residents with the flexibility to spend funds where they are most needed. While cities around the country have been piloting UBI during the pandemic to support individuals most impacted by the economic consequences of COVID-19, other government entities have long provided their residents with guaranteed income. Shortly after it achieved statehood, Alaska created a state-owned investment fund to hold oil proceeds, and dividends from that fund have been paid out to residents for the last 40 years.⁷ Since 1997, the Eastern Band of Cherokees established a casino dividend program that would distribute a portion of casino revenue to all reservation residents. Importantly, studies have found that these two programs have had no demonstrable effect on labor force participation, and, in the case of the Eastern Band of Cherokees, program participants experienced improved mental health outcomes in the long-term.⁸ The Commonwealth should advance a guaranteed income pilot, potentially using federal pandemic recovery dollars to fund the program. The state could limit the pilot to individuals under a certain income threshold, and should require a robust data collection effort to determine how funds are utilized as well as what resources would be needed to sustain the program in the long term.

Working in tandem with universal basic income, baby bonds can help address some of the disparities in wealth early on, before they are exacerbated into adulthood. Economists William Darity and Darrick Hamilton have led renewed interest in baby bonds to reduce the racial wealth gap. Baby bonds are typically publicly funded trust fund accounts provided at birth. Contributions would be made annually, with the largest contributions going to low-income families. Individuals are generally able to access the funds at age 18, and can only use them for wealth building purposes, such as purchasing a home, starting a business, or getting an education. At the federal level, Sen. Cory Booker (D-NJ) and Rep. Ayanna Pressley (D-MA-7) have proposed the American Opportunity Accounts Act, which would create a national baby bonds program. Each child’s account would receive an initial \$1,000 deposit, with additional contributions made annually. Children from the lowest-income households would receive the maximum annual contribution of \$2,000. Recently, Connecticut became the first state in the nation to implement a statewide baby bonds program. After July 1, 2021, children in Connecticut whose birth is covered under the

6 <https://apfc.org/>.

7 https://www.salon.com/2016/06/21/many_countries_are_weighing_cash_payments_to_citizens_could_it_work_in_the_u_s/.

8 <http://pinguet.free.fr/nber24337.pdf>.

state's Medicaid program are eligible to receive \$3,200 in a trust account, which will accumulate until the child is able to access the fund at age 18.⁹ The Commonwealth should institute its own baby bonds program to work in tandem with the existing Massachusetts Baby Steps savings plan, the state's universal educational savings program. These efforts should happen alongside an expansion of the Family Self Sufficiency (FSS) program (see Action 2.1)

Best/emerging practice: During the pandemic, the City of Chelsea launched the **Chelsea Eats** program, which provided about 2,000 households a small monthly stipend for six months. Chelsea was among Massachusetts municipalities most severely impacted by the COVID-19 pandemic and subsequent economic downturn. In September 2020, the City shifted away from an extensive food distribution system to instead pool local and state resources with philanthropic aid to launch the Chelsea Eats initiative.¹⁰ The program enabled residents to purchase their own food using a pre-paid card with \$200-\$400 loaded monthly over the pilot period. While the City of Chelsea did not expressly require families to only spend money on food purchases, nearly three-quarters of card spending occurred at locations that primarily sell food: grocery stores (50 percent), wholesale club (12 percent), restaurants and restaurant delivery (seven percent), and markets and convenience stores (six percent).

► **Action 1.2: Finance tuition free community college for low-income individuals, including older adults.** Higher education remains a key factor in one's ability to find high quality, well-paying work. However, across community colleges, public universities, and especially private institutions, costs are rapidly rising. In FY2021, the average total cost of annual tuition and mandatory fees at Massachusetts community colleges was nearly \$6,800, up 22 percent since FY 2016.¹¹ At the same time, the percentage of undergraduates coming from low-income families is growing. In 1996, 13 percent of dependent undergraduates at public two-year institutions were living in poverty, compared to 27 percent in 2016.¹² During the same timeframe, the percentage of nonwhite undergraduates has grown from 31 to 50 percent. While expanded access to educational opportunity is critical to addressing wealth inequality, it should not come with a disproportionate financial burden to low-income families.

As such, Massachusetts should institute statewide tuition free community college for low-income individuals. The Commonwealth should look to the City of Boston's Tuition Free Community College initiative to structure a comparable statewide program that considers student income, eligibility for federal aid, and other factors. While the state would likely target a program of this nature at high school students, older adults who meet the eligibility criteria should be able to participate as well. There is ample precedent for scaling up a free tuition model – 17 states have launched tuition free college programs. Many are structured as last dollar programs, covering mandatory tuition fees and costs after accounting for federal aid and grants.

9 <https://portal.ct.gov/-/media/OTT/Press-Room/Press-Releases/2021/PR070121---CtMakesHistoryTodayCtBabyBondsforCtChildrenintoPoverty.pdf>.

10 <https://www.hks.harvard.edu/centers/taubman/programs-research/rappaport/research-and-publications/special-collections/covid-19-relief-chelsea-ma>.

11 <https://www.mass.edu/datacenter/tuition/appendixtuitionfees-weight7.asp>.

12 <https://www.pewresearch.org/social-trends/2019/05/22/a-rising-share-of-undergraduates-are-from-poor-families-especially-at-less-selective-colleges/>.

► **Action 1.3: Expand access to retirement savings accounts for freelance and contract workers through portable benefits solutions and other state-sponsored options.** According to the AARP Public Policy Institute, workers are 15 times more likely to save for retirement when they can do so through an employer payroll deduction savings plan.¹³ Low-wage workers are less likely to have access to such plans, exacerbating wealth inequities in the long-term. In Massachusetts, only 28 percent of workers making less than \$28,000 annually have access to an employer-sponsored retirement plan, compared to 71 percent of individuals making over \$100,000 annually.¹⁴ These challenges are poised to become more complex as the gig economy grows. From 2010 to 2019, the share of gig workers increased 15 percent, and gig work is poised to remain a key feature of our economy into the future.¹⁵ As this kind of flexible work continues, the Commonwealth needs to innovate new approaches to ensure all workers can save for the future.

In 2012, Massachusetts created the CORE plan, a tax-deferred and post-tax 401(k) savings plan developed for eligible small nonprofit organizations that expands retirement savings options to employees of these organizations. The Administration should explore expanding the eligibility of this plan to employers that primarily hire freelancers and independent contractors.

Another option is to require companies to offer a portable benefits solution to their workers. Portable benefits expand retirement savings accessibility by tying benefits to workers, not employers. Universality is a key feature of portable benefits - workers accrue benefits regardless of the number of hours worked or the type of work arrangement.¹⁶ A bill was recently introduced in the New Jersey Senate that would require contracting agents with at least 50 workers to pay into a portable benefits package for their workers. Employer contributions would be based on the number of hours worked or the amount of money made. This bill could serve as a model for a similar program in Massachusetts. While portable benefits will not necessarily benefit the lowest-income workers, this option would begin to expand benefit access to workers who otherwise have limited options. The Commonwealth should continue to consider opportunities to expand access to retirement savings for the lowest-income residents.

► **Action 1.4: Create a statewide commission to study the use of reparations in Massachusetts.** Increasingly, there have been efforts at the local, state, and federal level to assess how reparations can begin to confront the deep and enduring legacy that slavery, Jim Crow, generations of residential, economic, and educational segregation, and other elements of systemic racism have had on the Black community. The National African American Reparations Commission (NAARC) has developed a 10-point framework for reparations centered on repair, healing, and restoration of communities harmed by fundamental human rights violations enacted by governments or corporations.¹⁷ NAARC has led advocacy for the passage of HR.40, filed by Congresswoman Sheila Lee Jackson (D-Texas), which would establish the Commission to Study and Develop Reparation Proposals for African Americans. A number of state legislatures are reviewing bills to create statewide reparations commissions, and in May 2021, California became

13 <https://www.aarp.org/ppi/issues/security/>.

14 <https://www.pewtrusts.org/en/research-and-analysis/data-visualizations/2016/employer-based-retirement-plan-access-and-participation-across-the-50-states>.

15 <https://www.adp.com/-/media/adp/resourcehub/pdf/adpri/illuminating-the-shadow-work-force-by-adp-research-institute.ashx>.

16 <https://www.aspeninstitute.org/wp-content/uploads/2019/06/Designing-Portable-Benefits-June-2019-Aspen-Institute-Future-of-Work-Initiative.pdf>.

17 <https://reparationscomm.org/reparations-resources/#reparations-faqs>.

the first state to create a reparations task force. Cities and towns are also leading efforts to bring reparations to their residents. Evanston, Illinois created the Restorative Housing Program for Black residents or descendants of residents who experienced housing discrimination from 1919-1969, when redlining and use of racial covenants was a standard practice. In June 2021, Amherst Town Council voted to allocate over \$200,000 in a budget surplus to establish a reparation fund and created the African Heritage Reparations Assembly, which will develop the town's reparations plan.

Confronting these historical and ongoing injustices is long overdue, and momentum toward reparations is building across the country. As we look to advance an equitable and resilient recovery, focusing on the households and communities that suffered the brunt of the pandemic and recession, this is a particularly important moment to advance a statewide commission to study reparations in the Commonwealth. A statewide commission should be tasked, firstly, with determining whether and how reparations could be used to address long-standing inequities facing Black residents of Massachusetts; and, secondly, with determining appropriate sources and uses for such funds. To be effective, such programs should draw on the engagement and recommendations of Black community leaders, and they should also be accompanied by additional efforts to dismantle the racism that continues to operate in many sectors of our society, government, and economy.

Strategy 2

Expand the social safety net to lift families out of poverty.

The foundation of the modern American social safety net began during the New Deal era and took off post-World War II. The Great Society era was marked by a multitude of programs designed to reduce poverty, expand access to jobs and educational opportunities, and grow the economy. Today, programs such as Head Start, SNAP (i.e. food stamps), the Community Action Program, and many others remain central features of the support system in place for low-income individuals and families. However, deregulation and growing stigma toward “the welfare state” has led to a weakening of many of these programs. While the Commonwealth has stepped in to strengthen and complement existing federal safety net programs in some instances, there is opportunity to continue these strategic investments. Federal recovery dollars have given us an opportunity to make meaningful investments in our social safety net programs in the Commonwealth. The pandemic has illuminated how quickly individuals and families can find themselves in need of healthcare, housing, and food assistance. Strengthening and expanding programs that provide for these basic needs can help build a more resilient Commonwealth. Social safety net programs can boost economic mobility and begin to address some of the adverse health outcomes associated with prolonged periods of poverty. These measures are particularly critical for immigrants, individuals whose primary language is not English, and indigenous communities, who continue to face undue barriers to accessing these resources and services.

► **Action 2.1: Increase funding for the Family Self-Sufficiency Program to mitigate the cliff effect and adopt an opt-out model so funding is automatically available to qualifying residents.** The Family Self-Sufficiency (FSS) program helps families who receive Section 8 Housing Choice Vouchers connect with a variety of public and private resources to build assets. Through case management and financial coaching services, the FSS program leverages other resources to help families access job training and education opportunities over a five-year period. As families make use of these resources and pay more in rent or earn higher wages, FSS deposits additional money into an escrow account that is available upon graduation from the program. The Department of Housing and Community Development (DHCD)'s FSS program is the seventh largest in the country, and already includes some innovative options for participants, including access to Jump Start funds, incentives to start and complete job training and post-secondary education, and a bonus for FSS graduates who leave the program early to pursue homeownership or the private rental market. Under DHCD's program, the escrow account is capped at \$25,000. While Congress should expand funding for the program, the Commonwealth should invest supplemental resources to grow the program across the state. Initial support for this could potentially come through federal recovery dollars. Additionally, DHCD should consider an opt-out model to ensure all residents who are eligible do not miss the opportunity to participate and build wealth.

► **Action 2.2: Expand financial support for low-income families and individuals.** Massachusetts has several programs for families and individuals in need of economic assistance. Transitional Aid to Families with Dependent Children (TAFDC) is available to eligible families with children, pregnant people, and caregivers. The TAFDC program not only provides individuals with cash payments for direct economic relief, but also enrolls participants in MassHealth and provides referrals to free childcare and employment and training programs. TAFDC benefits have lost half of their value since 1988, and the maximum grant available provides income at less than one-third the federal poverty level.¹⁸ In the FY2022 budget, the Legislature removed the asset limit eligibility requirement, which will help make TAFDC benefits available to additional families in need. During the previous budget cycle, the Legislature increased TAFDC funds by 10 percent, the first increase since 2000. Funds for this program should continue to increase to keep pace with need as the region advances an equitable economic recovery. To more comprehensively strengthen the TAFDC program, the Legislature should pass [S.96/H.199](#), An Act to lift kids out of deep poverty, filed by Senator DiDomenico and Representative Decker. This bill would gradually increase TAFDC until grants reach 50 percent of the federal poverty level.

Emergency Aid to the Elderly, Disabled, and Children (EAEDC) is a similar cash assistance benefit for individuals with disabilities, individuals over the age of 65, and certain families with children who do not qualify for TAFDC. In the FY2021 budget, the Legislature increased EAEDC funds by 10 percent, the first increase since 1988. This was an important step forward, and

¹⁸ <https://www.masslegalservices.org/content/introduction-tafdc-guide>.

funding for this program should continue to increase each year to similarly keep up with need. *An Act relative to assisting elders and people with disabilities in the Commonwealth* ([S.411/H.750](#), filed by Senator Pat Jehlen and Representative Jim O'Day) codifies valuable reforms to strengthen the program, including linking the maximum amount eligible participants can receive to the Consumer Price Index, and requiring that unhoused individuals who are eligible for the program receive the same payment rate as individuals who incur shelter costs.

In addition to expanding resources available for these programs, it is also important to ensure coordination across different assistance programs to ensure residents are receiving the resources they need. An Act to streamline access to critical public health and safety-net programs through common applications ([S.761/H.1290](#), filed by Senator Sal DiDomenico and Representative Jay Livingstone), would establish a streamlined application process that allows individuals to apply for multiple needs-based benefits programs and services at the same time. It would allow for individuals applying for or renewing MassHealth coverage to simultaneously apply for the Supplemental Nutrition Assistance Program (SNAP), Department of Transitional Assistance cash benefits, and other benefit programs.

- ▶ **Action 2.3: Increase resources available to organizations that participate in Volunteer Income Tax Assistance (VITA) to help families utilize all available tax benefits.** The Volunteer Income Tax Assistance (VITA) program is a free basic tax return preparation assistance program designed for: individuals who generally make \$57,000 or less annually, individuals with disabilities, and individuals who are proficient in languages other than English. The program plays a critical role to help individuals ensure they are maximizing their tax benefits. The Commonwealth should increase resources available to organizations that serve as VITA sites during tax filing season and promote stronger coordination with social service agencies to ensure qualified residents are aware of this resource. Additionally, some VITA sites around the country serve as Certifying Acceptance Agents (CAA), which are entities authorized to help individuals who do not qualify for Social Security but need an Individual Taxpayer Identification Number (ITIN). The Commonwealth should identify VITA sites that could also serve as CAAs to help more individuals secure an ITIN.

Strategy 3

Amend the Massachusetts Tax Code to be more progressive.

The Institute on Taxation and Economic Policy ranks Massachusetts as the 20th most equitable tax system of any state in the country.¹⁹ While not the worst on the list, there is room to improve the state tax code to make it more progressive and lessen the tax burden on low-income individuals. By having the highest earning households and corporations pay taxes at a rate that is proportional to their wealth, the Commonwealth can generate much needed revenue to expand housing opportunity, invest in a world-class transportation system, strengthen public schools and improve educational outcomes, ensure equitable access to health care, and much more. The federal COVID relief and recovery dollars have provided an unprecedented opportunity to address some vulnerabilities made most deeply evident during this time, including expanding rental assistance and addressing food insecurity. Considering the scope of need, however, these federal dollars are just a short-term fix. A more progressive tax code would mean more revenue to make permanent some changes that helped residents hit hardest by the pandemic gain access to economic opportunity and provide for their families.

- ▶ **Action 3.1: Adopt a graduated income tax.** Currently, Massachusetts residents pay a flat 5 percent tax on income. The Commonwealth is one of nine states that have a flat income tax rate. While nine other states have no income taxes, the remaining 32 have some form of graduated income taxes, meaning the tax rate increases as income increases. Adopting a graduated income tax will allow the Commonwealth to expand services provided to residents without increasing financial hardship on low-income families. This is particularly critical as the Commonwealth looks to sustain and make permanent some housing, workforce development, and public health investments made in part to accelerate an equitable and resilient economic recovery.

As the structure of a graduated income tax is devised, the Commonwealth should implement a temporary one percent increase in the income tax, with mechanisms necessary to protect low-income individuals. A one percent increase on the income tax is estimated to generate \$2.5 billion per year. This change should include mechanisms to protect low-income individuals, including increasing the Earned Income Tax Credit and the dependent care tax credit. This increase should last five years, while efforts toward a graduated income tax take shape. Further recommendations related to expanding the Earned Income Tax Credit are available in Action 3.2 in “**Improve quality of life and reverse the rising rate of chronic diseases, particularly among populations experiencing health inequities.**”

- ▶ **Action 3.2: Increase and expand taxes on unearned income.** To craft a more equitable tax system and generate sustained funds for additional needed services, the Commonwealth should look to increase taxes on unearned income. This includes enacting a one percent increase in the capital gains tax. Capital gains are the profit realized from the sale of stocks, real estate, artwork and other assets. Currently, the state taxes long-term capital gains at five percent, and short-term capital gains (assets sold within one year) at

¹⁹ <https://itep.org/whopays/>.

12 percent. Each one percent increase on long-term capital gains could raise \$365 million annually for Massachusetts. An increase in the capital gains tax would primarily impact households with the greatest ability to pay, making for a more equitable tax system.

Additionally, the Commonwealth should adopt an inheritance tax, which six states currently levy. An inheritance tax would allow Massachusetts to collect taxes from out-of-state beneficiaries, so long as the benefactor resided in the Commonwealth. Massachusetts currently levies an estate tax on estates valued over \$1 million. While an estate tax is charged against the estate itself, the beneficiary of the estate would be charged the inheritance tax. Maryland currently levies both an estate and an inheritance tax. As is the case with the existing estate tax, the inheritance tax should only apply to estates valued above a certain threshold. Additionally, all these tax mechanisms should include exemptions for low- and moderate-income seniors and disabled persons.

- ▶ **Action 3.3: Increase the corporate income tax from 8 to 9.5 percent.** Taxing corporate profits is one of the primary ways Massachusetts generates income from businesses. Today, the Commonwealth applies an eight percent tax on most corporate profits, though tax rates and tax bases vary across industries. There is a minimum excise tax of \$456 for corporations. Increasing the corporate income tax rate to 9.5 percent could generate \$375 million to \$500 million per year.²⁰ This increase would return the tax to pre-2009 levels. In July 2008, Governor Deval Patrick signed into law a corporate tax reform package that steadily reduced the corporate income tax rate on Massachusetts-based businesses while closing loopholes that enabled multi-state and multi-national corporations to report lower taxable income. This change was meant to keep Massachusetts competitive as the nation emerged from the Great Recession. While the COVID-19 pandemic has brought about its own set of economic challenges, many large corporations saw profits remain the same or even grow while small businesses experienced greater financial insecurity. Previously, there have been efforts to establish a tiered minimum corporate income tax. The Massachusetts House included this provision a transportation revenue package proposed during the 2019-2020 legislative session.

²⁰ https://www.massbudget.org/reports/pdf/FactsAtAGlance_CIT-Increase_FINAL_8-6-2020.pdf



Recommendation: Improve the accessibility and efficacy of the Commonwealth’s workforce development infrastructure

Strategy 1

Adequately invest in the workforce development system structure.

The federal framework of the Workforce Innovation and Opportunity Act (WIOA) is the fourth iteration of federal workforce policy since 1963.¹ WIOA funds make up the bulk of workforce development funding in the state of Massachusetts, but federal funding has been consistently decreasing since 2001, leaving workforce development infrastructure chronically underfunded. Massachusetts’ allocation of WIOA dollars is distributed across the 16 MassHire Workforce Boards that serve the Commonwealth. Workforce development is also supported by the Wagner-Peyser Act of 1983, which established a nationwide system of public employment offices, known as the Employment Service.² Employment Service offices seek to connect job seekers with employers looking to hire. The Act has been amended under WIOA to build upon other workforce development reforms, requiring colocation of Employment Service offices into Workforce Board offices and aligning performance measures with other federal workforce programs. There are ways the Commonwealth can modify its use of WIOA dollars and other federal workforce funding to ensure that these scarce resources are allocated to areas of greatest need.

Finally, it is important to note that for unemployment rate to be a useful indicator of workforce participation and worker satisfaction, there needs to be a deeper investigation of the source of the unemployment. Unemployment rates can be a result of a lack of available jobs in general, or a lack of available jobs that match the skillset of the workforce. Understanding these underlying conditions will not only help guide meaningful workforce investments, but also inform complementary efforts to increase the availability of high quality, well-paying jobs in the region. This recommendation focuses on investments in workforce development but, as the region emerges out of the COVID-19 pandemic, ensuring people are returning to high quality jobs with sufficient pay and benefits is essential. For more information on MAPC’s research on the future of work and how we can build an equitable, economically prosperous region, please see this [presentation](#) on the future of work in Metro Boston and MAPC’s [priorities for an equitable and resilient economic recovery](#).

1 <https://www.dol.gov/agencies/eta/wioa/about>.

2 <https://www.dol.gov/agencies/eta/performance/results/wagner-peyser>.

How Workforce Development is Funded

Congress appropriates WIOA funding annually, and then the US Department of Labor divides up funds between the states. There is a formula that the Department of Labor uses to allocate funds once appropriated by Congress, which is primarily based on unemployment rate and numbers of disadvantaged adults.³

⁴ However, there are no criteria that Congress uses in determining the size of the appropriation in the first place.

Once the funding gets to the states, Massachusetts divides the total allocation between the various MassHire Workforce Board regions. Many states opt to utilize the Department of Labor's funding formula in allocating WIOA dollars to the Workforce Boards. This current funding allocation system has two major flaws:

1. Relying on the unemployment rate as the primary indicator used in funding allocations results in the state underfunding the system when times are "good" (low unemployment). This shortchanges the system at a time when those who are not in the labor market typically have more barriers to employment, therefore making it more costly to help move them into good jobs.
2. Since the formula lags (i.e., is based on the unemployment rate at the time of appropriation cannot be updated), states find themselves in situations such as the economic downturn during and following the COVID-19 pandemic. In this example, the system was funded as if the unemployment rate was still at its pre-pandemic level of under 3 percent, when it is was actually much higher. Relatedly, each state's allocation is based on unemployment relative to other states. In the case of national economic downturns, if the country is experiencing a rise in unemployment, Massachusetts will not necessarily see its share of WIOA dollars increase, despite increased need.

Massachusetts has 16 Workforce Board regions that vary widely in size, some serving over 40 communities, and some serving only five or six. The City of Boston has its own Workforce Board, the Boston Private Industry Council. All Workforce Board regions serve communities with varying amounts of resources, which, depending on the size of the region, may skew the regional unemployment rate down since high numbers of unemployed individuals are usually concentrated in specific communities. For example, in 2020, the unemployment rate for the Merrimack Valley Workforce Board as a region was 11percent, but the unemployment rate for one major city in the region, Lawrence, was 20 percent.

- **Action 1.1: Convene a task force to recommend revisions to the Commonwealth's WIOA funding formula that would target areas of high need.** While there is a need to increase WIOA funding at the federal level, the Commonwealth has the flexibility to adjust how it allocates its share of dollars so that these resources are available to areas where need is greatest. The Commonwealth's WIOA funding formula should be adjusted to better distribute resources to regions with high concentrations of individuals in need and ensure sufficient funding to serve hard to reach populations. This means more giving more consideration the root causes of barriers

3 H.R. 803 – 88, 132 B ii - <https://www.congress.gov/113/bills/hr803/BILLS-113hr803enr.pdf> (pg 87 - 92)

4 Disadvantaged adults refers to an adult whose income, individual or as part of a household, does not exceed the federal poverty line or is 70% of the lower living stand income level, whichever is higher.

to entry into the workforce, including housing stability, transportation accessibility, and public health concerns. To guide the development of a modified formula, the Commonwealth should convene a task force comprising workforce board operators, public health officials, and affordable housing advocates to discuss specific criteria for evaluation. The task force should develop principles that guide how funding decisions are made, and it should receive technical support from data analysts to help identify possible criteria and formula updates. Some criteria to consider may include percentages of discouraged workers (individuals no longer seeking work or unable to find work after long-term unemployment), continued unemployment claims, and concentrations of non-English speakers. The Commonwealth should consider similar revisions to other sources of federal workforce development funding, including resources available through the Wagner-Peyser Act.

- ▶ **Action 1.2: Commission a task force to review the current geographical designations for MassHire Workforce Boards and evaluate alternative or supplemental designations that would provide more effective programs in high needs communities.** The number of municipalities and individuals served by each of the Commonwealth’s Workforce Boards varies widely. The geography of the Workforce Boards is not necessarily tied to the economic conditions in each region, leaving some serving more residents in greater need of workforce support than others. Furthermore, the COVID-19 pandemic has left a lasting but disparate economic impact on the Commonwealth. Small businesses and restaurants will take longer to recover than businesses that were easily able to shift to virtual operations. Additionally, some consumer preferences that have shifted toward e-commerce during the pandemic are likely to last into the future. The Commonwealth should commission a task force to review the geography of the Workforce Boards in light of these evolved economic conditions. This will allow a more targeted use of WIOA dollars to better meet areas in need of workforce support. This evaluation should also take into consideration transportation accessibility in each Workforce Board region, as well as commuting patterns and percentage of workers that are able to work remotely at least part-time. The task force should also evaluate alternative or supplemental designations that would provide more targeted and effective programs in areas in need of greater workforce support.
- ▶ **Action 1.3: Allocate state funds to invest and upgrade digital capacity for the MassHire Workforce Boards and Career Centers to provide remote services.** The COVID-19 pandemic has accelerated the transition to digital work, learning, and service provision. Expanding digital access will be an important component of a robust and equitable economic recovery. The Commonwealth should allocate resources to enhance the Workforce Boards’ digital presence and to expand their capacity to provide remote services. This will allow the Workforce Boards to reach a broader population, as evidenced by the growth in participation seen in remote and hybrid meetings across the Commonwealth. The Workforce Boards’ Career Centers should provide more services digitally and offer services that will better prepare workers for remote and hybrid work opportunities.

Strategy 2

Integrate capacity to address upstream barriers to skill building within the workforce system network.

The delivery of workforce development services such as hard and soft skill training, interview and resume prep, or higher educational attainment are among the easier components of the workforce development system to address. Many of the upstream factors that prevent individuals from accessing training, skill building, or educational services in the first place are more critical to address to ensure successful program delivery. These barriers include transportation, digital access, housing stability, health/mental health support, language access, and childcare, to name a few. An equitable economic recovery will require a strong foundation in not only supporting education and skill building, but also addressing many of those upstream factors. To do so will require a holistic approach to integrating the workforce development community into conversations with stakeholders that focus on addressing these upstream factors. A more active approach to addressing these upstream barriers and integrating the necessary supports within workforce development activities is needed. Planning for this future will require policy makers to move beyond the limiting designation of economic development and toward a new perspective of economic resilience.

► **Action 2.1: Restructure the Governor’s Workforce Skills Cabinet as the Economic Resilience and Recovery Cabinet and add in Secretaries of Health and Human Services and Transportation and the Commissioner of Education.**

The mission of this new cabinet would be to coordinate an integrated approach to economic recovery and resilience. This new cabinet should begin its mission by evaluating the upstream social and spatial factors that created such an uneven economic burden on low wage workers in the Commonwealth in terms of job losses, housing instability, and lack of critical services such as childcare and digital access. The cabinet should then work to develop inter-departmental recovery and resiliency strategies that are responsive to both upstream issues that impact economic mobility and downstream needs of individuals and businesses. This new Cabinet could be modeled on the Honolulu Office of Economic Revitalization.⁵ Early in the pandemic, the Mayor of Honolulu reorganized the Office of Economic Development into a new entity to lead economic recovery and revitalization. This effort has allowed the City to address issues with a more holistic and upstream approach and should be used as a model for Massachusetts’ Economic Resilience and Recovery Cabinet.

► **Action 2.2: The Commonwealth should require Regional Workforce Blueprints to integrate chapters that specifically address how the partners will identify and address upstream barriers and allocate additional supplemental funding for implementation.**

In 2017, the Governor’s Workforce Skills Cabinet led an effort to develop regional workforce blueprints for seven regions across the Commonwealth. This regional planning effort brought together educators, workforce, and economic development professionals to identify labor gaps and develop growth strategies used to inform policy decisions and investments designed to strengthen the Massachusetts economy.

⁵ <http://www.honolulu.gov/cms-csd-menu/site-csd-site-articles/1305-site-csd-news-2020-cat/38966-07-20-20-city%E2%80%99s-office-of-economic-revitalization-fills-key-positions.html>.

To make these blueprints more effective, the Cabinet should update the template blueprint to require a discussion of the key upstream barriers in each region. The stakeholder group charged with developing these blueprints should be broadened to incorporate individuals with expertise in the relevant upstream barriers, which may include housing stability, transportation access, and digital connectivity. As the blueprints incorporate this broader focus, the Commonwealth should allocate additional dollars to support implementation of these more holistic measures.

- ▶ **Action 2.3: Convene community colleges with state and local actors to evaluate options for housing, childcare, and digital access to support students in need.** Community colleges play a critical role in advancing workforce development services in the Commonwealth. They offer education on in-demand services, make connections between employers and job seekers, and collaborate with employers to provide training for incumbent workers. To ensure community colleges are empowered to serve as an essential feature of our workforce infrastructure, the Administration should employ a cross-sectoral approach to elevating the role of community colleges in future workforce activities. Representatives from the Commonwealth's new Economic Resilience and Recovery Cabinet and the MassHire Workforce Boards should work with the Massachusetts Association of Community Colleges to develop a strategy for better integrating community colleges into strategies for alleviating upstream barriers to workforce development. Stakeholders should include representatives with expertise in housing stability, childcare provision, and digital accessibility, as well as municipal staff and local officials representing a variety of community types.

Strategy 3

Integrate MassHire Workforce Board activities into economic development efforts.

As a home rule state, Massachusetts municipalities are granted substantial authority over local business development and regulation. Most economic development planning occurs at the municipal level, with activities varying between cities and towns based on available resources and community interest. The Executive Office of Housing and Economic Development is tasked with advancing the Commonwealth's priorities around economic development, which generally focus on overall competitiveness in key industries such as health care, life sciences, and technology. Similarly, MassDevelopment, the state's economic development authority, is primarily responsible for site- or business-specific development and technical assistance.

While the MassHire Workforce Boards are regional in scope, there are no entities specifically tasked with regional economic development. The lack of a regional network of economic development entities that mirrors the Workforce Board system undermines workforce development efforts in several ways. Workforce Investment Boards are stretched thinner, spending time on private sector engagement in addition to their primary function of serving unemployed and

underemployed individuals. This limits the efficacy and reach of the MassHire system and makes it more difficult to build connections between the workforce community and municipalities where MassHire does not have a direct presence. New regional economic development entities would also complement local economic development planning efforts, which is particularly critical for municipalities with limited staff capacity. Investing in regional economic development strategies can fill a gap in our economic development efforts, while building a stronger connection between the economic development and workforce development community.

- ▶ **Action 3.1: The Executive Office of Housing and Economic Development (EOHED) should facilitate the creation of independent regional economic development authorities across the Commonwealth.** EOHED, in conjunction with regional planning agencies, should create regional economic development authorities based on shared labor markets, business composition, municipal structure, population demographics, and other factors. These authorities could function similarly to the Jobs Ohio Network.⁶ Comprising six different regional economic entities, all designed to serve each region's unique strengths and needs, the Network is guided by nine industry targets and five cross-sector strategies, and serves as a partner to both the private sector and cities and towns in advancing regional economic development efforts.

For a similar effort to be successful in Massachusetts, the mandate of these authorities should be to advance strategic economic development initiatives that build an equitable, cohesive, and sustainable regional economic system focused on supporting quality job development in the region. These authorities should work in partnership with the Workforce Boards, using the Workforce Boards' workforce planning processes to inform their work. Similarly, the Workforce Boards should work with the authorities to target training programs and funding in ways that support regional economic development. Structuring the authorities around the same geographies of the Workforce Boards would assist in coordinating program development, stakeholder engagement, and resource allocation.

- ▶ **Action 3.2: Develop a grant program aimed at implementing regional economic development initiatives that require a coordinated Workforce Board and municipal led approach.** Until the Commonwealth creates new regional economic development authorities, cities and towns should work with their Workforce Boards to scale up local economic development efforts and identify opportunities for coordination across municipal boundaries. To incentivize this approach, the Commonwealth (either through the current Workforce Skills Cabinet or independently through EOHED) should create a grant program that encourages municipalities and their respective Workforce Boards to work together to produce cohesive regional economic development plans. These plans should mirror some of the issues reflected in the Regional Workforce Blueprints to ensure alignment with regional workforce development and economic development efforts, and can help lay the groundwork to identify the critical functions of the regional economic development authorities. For more details on complementary economic

⁶ <https://www.jobsohio.com/>.

resiliency strategies, see Action 1.1 in **“Expand and promote the resiliency of small businesses, particularly those owned by people of color, and encourage large employers to invest in local economies and advance equity.”**

Action 3.3: Require industry partners to integrate sector based and private sector driven partnerships as components of Regional Workforce Blueprints.

The Regional Workforce Blueprints require an assessment of priority industries and occupations and an accompanying asset and gap analysis. This allows the blueprints to describe the key opportunities for workforce development in each region and determine what resources already exist to fill gaps and expand job growth or training opportunities there. To make the blueprints more actionable and aligned with ongoing economic development efforts, they should expressly identify sector based and private sector driven partnerships. This will give the Workforce Boards and other regional partners a better sense of the stakeholders that need to be at the table as the Commonwealth progresses toward a more integrated approach to workforce and economic development.

Strategy 4

Continue to expand workforce development and career pathways within the K–12 system.

Massachusetts has long struggled with producing enough local talent to fill many of the jobs being created by the state’s strong technology, healthcare, and industrial industries. Many of these jobs require specialized training or an advanced degree. While the number of these jobs has steadily increased over the last decade, the number of state residents graduating from four-year programs has increased only marginally and completely stagnated in certain demographic groups.

At the same time, Massachusetts vocational schools have seen a strong increase in demand due to the successes of these programs in preparing students for employment in many of the Commonwealth’s well-paying sectors. Many vocational schools are regional and some serve a particularly large geographic area, further straining supply and enabling some vocational technical schools to only offer seats to the highest performing students. This, in turn, closes off opportunities to vocational programs for many students who may otherwise be unable to access these types of training opportunities. It is critical the Commonwealth expand the pipeline of students to college and vocational programs to meet demand in these growing industries.

- ▶ **Action 4.1: The Commonwealth should revise regional vocational technical school district areas to better serve communities with greater need.** Similar to the Workforce Board’s geographical challenges, the district size of the Commonwealth’s vocational technical schools varies widely. In the absence of adequately scaled resources to meet demand, this means that some larger districts are unable to meet the need in their region. For example, the Northeast Metro Tech Regional High School in Wakefield serves the communities of Chelsea, Malden, Melrose, North Reading, Reading, Revere, Saugus, Stoneham, Wakefield, Winchester, Winthrop, and Woburn.

Together, these communities have approximately 15,000 high school aged students. Northeast MetroTech has a current enrollment of only 1,249, which allows only a small fraction of students from each community to attend. To balance resources available across Massachusetts, the Commonwealth should revisit the size of the population served by each regional vocational technical school and the demand for seats at these schools.

- ▶ **Action 4.2: Increase funding available for Early College programs and ensure that local governments and the workforce community have a role in shaping the long-term goals of these programs.** In 2017, the Baker Administration created the Early College Initiative, which is intended to build and maintain partnerships between the Commonwealth’s school districts, high schools, and public colleges. The goal of the Initiative is to give thousands of Massachusetts students, especially first-generation collegegoers, access to college completion and career success.⁷ The Early College Joint Committee is tasked with coordinating and administering the Early College Initiative. Early data from the program has found that it has made a demonstrable impact in encouraging higher education enrollment. The Department of Elementary and Secondary Education found that Early College participants attended college at rate 20 percent higher than their school or state peers. The difference was more pronounced for Black and Latinx students. Black Early College graduates enrolled in college at rate 25 percent higher than their school peers; for Latinx Early College graduates, the differential was 30 percent.⁸

To ensure the long-term efficacy of this program, the Commonwealth should increase funding available to community colleges and public universities to cover costs incurred by Early College programs. Additionally, the Joint Committee should be expanded to include representatives from local governments and representatives from the workforce development community. Bringing these voices to the table will ensure Early College programs are aligned with local, regional, and statewide workforce and economic development needs and goals.

- ▶ **Action 4.3: Expand incentives for employers to participate in summer youth jobs programs.** Summer jobs provide youth the opportunity to earn an income, get experience in a potential career path, and gain skills that can be applied across a variety of fields. Employers that offer youth employment opportunities are making a valuable investment in the future workforce. The Commonwealth currently offers some youth summer jobs programs through the MassHire Workforce Boards and programs such as YouthWorks, operated out of the Commonwealth Corporation.⁹ ¹⁰ In 2015, the Attorney General’s Office created the Healthy Summer Youth Jobs Program, which provides summer employment opportunities for youth in public health-related fields, with a specific focus on supporting organizations that work in low-income communities and Environmental Justice communities.¹¹ The Commonwealth should increase investments in these programs, targeting expansion efforts toward youth residing in low-income communities, youth

7 <https://www.mass.edu/strategic/earlycollege.asp>.

8 Department of Elementary and Secondary Education. Early College Students Show Strong Gains in College Enrollment. 2020. Early College Students Show Strong Gains in College Enrollment. <https://www.mass.edu/about/newsreleases/nr-20200826.asp>.

9 <https://www.mass.gov/masshire-youth-training-and-employment-opportunities>.

10 <https://commcorp.org/programs/youthworks/>.

11 <https://www.mass.gov/info-details/healthy-summer-youth-jobs-program>.

with proficiency in languages other than English, and others who may encounter disproportionate barriers to entering into the workforce.

- ▶ **Action 4.4: Address funding disparities between the Commonwealth's community colleges and state universities.** Community colleges comprise 42 percent of the Massachusetts higher education system's student body but receive proportionately less funding than state universities.¹² The Commonwealth attempted a revision to its community college funding scheme, using a performance-based formula from 2012-2016.¹³ This effort was met with several challenges, including exacerbating inequities in per-student funding as community college enrollment dropped in 2013. The pandemic has taken a toll on enrollment across all higher education systems, including community colleges, which enrolled 26 percent fewer students in 2020 than they did the year before.¹⁴ Community colleges are a critical component of our workforce development infrastructure and will be essential through economic recovery and beyond. The Commonwealth should increase funding for community colleges, ensuring a stable funding stream as enrollment levels return to pre-pandemic levels. Simultaneously, there should be a coordinated effort to assess opportunities to leverage private funding for community colleges as another route to putting these institutions financially on par with state universities.

12 <https://masscc.org/fast-facts/>.

13 <https://www.tbf.org/-/media/tbf/reports-and-covers/2018/grade-in-complete-report.pdf?la=en>.

14 <https://www.wbur.org/edify/2021/02/12/pandemic-massachusetts-community-colleges-struggle>.

Equity of Wealth and Health
Ensure all residents are provided
equal protection and support by
law enforcement agencies and
within the justice system



Photo courtesy of Connor Gleason, Curry College



Recommendation: Ensure all residents are provided equal protection and support by law enforcement agencies and within the justice system

Ensuring safety for all residents of the region requires a mix of solutions, many of which involve creating the right economic, health and social conditions that confront the legacy of structural racism and allow people to thrive. We recognize that Black residents and other people of color are disproportionately impacted by the criminal justice system and are more likely than White residents to be the victims of violence by police, to be arrested or cited, and to face stiffer sentences for similar offenses. These recommendations therefore aim to address such disparities, through a variety of changes in policy, practice, and funding priorities. We are committed to work with our partners and allies in both government and in our communities, who have been instrumental in crafting these recommendations, to continue to push for meaningful and equitable public safety policies.

At the same time, we recognize the urgency to advance violence prevention initiatives and alleviate the social, economic, and physical toll violence has in the region, and especially in communities of color. The need to address the epidemic of gun violence in the United States is long overdue, and meaningful change will require leadership at all levels of government. These changes must be coupled with supporting existing and successful violence prevention state programs like the Senator Charles E. Shannon Community Safety Initiative and Safe and Successful Youth Initiative, which have been touted as models by the Giffords Law Center. Violence prevention programs must not only consider enforcement tactics, but also require a community based and prevention approach in order to be successful and sustainable.

However, programs that address public safety practices and violence prevention will not, on their own, achieve our public safety goals. Making our communities safer for everyone will require many other complementary changes in public policy. For example, access to transitional jobs for youth and young adults is a key tool to address economic insecurity, which is a driver of violence. We must therefore maintain and expand funding for successful jobs programs in our region.¹ Affordable housing and housing stability are essential tools to lower recidivism rates and to make reintegration into society after incarceration easier. Housing stability and community reinvestment are correlated with improved social cohesion, which is believed to be a key determinant of community safety and rates of violence.² Access to affordable mental health care is also critical to

1 Washington Post, "Chicago gave hundreds of high-risk kids a summer job. Violent crime arrests plummeted." Dec 8, 2014. <https://www.washingtonpost.com/news/wonk/wp/2014/12/26/chicago-gave-hundreds-of-high-risk-kids-a-summer-job-violent-crime-arrests-plummeted/>

2 <https://nij.ojp.gov/topics/articles/collective-efficacy-taking-action-improve-neighborhoods>.

ensuring individuals receive the support they need before crises escalate and police are called. Many of these themes are addressed in other recommendations in MetroCommon.

While these policy changes are critical, they cannot happen in the absence of comprehensive police reform. Following the murders of George Floyd, Ahmaud Arbery, and Breonna Taylor in 2020, the Massachusetts Black and Latino Legislative Caucus led efforts to address systemic racism and police brutality. In response, the Governor filed legislation to address some (though not all) of the key issues, and the Legislature subsequently passed [S.2963, An Act Relative to Justice, Equity and Accountability in Law Enforcement in the Commonwealth](#), which the Governor signed it into law as the [Chapter 253 of the Acts of 2020](#). MAPC was actively engaged in this debate, along with our Metro Mayors and North Shore coalitions. While we were pleased to see some of our initial recommendations included in the final piece of legislation, there were also important provisions missing that are included as part of these MetroCommon recommendations.

The following recommendations aim to make the region safer and fairer for all its residents, but we recognize there are many topics relating to safety not addressed here that are also important – bail reform, domestic and sexual violence, use of facial recognition technology, and the privatization of police and security services are just a few other areas that should be further explored. These recommendations similarly do not tackle issues around disaster/emergency preparedness and response which, as the COVID pandemic has shown, are critical to protecting area residents. Some of these recommendations are addressed in “**Prepare for and respond to the threats of climate change.**” and “**Reverse the rising rate of chronic diseases, particularly among populations experiencing health inequities.**” The policies chosen here relate to priorities expressed by regional stakeholders and align with some of the current programming MAPC is currently undertaking. This agenda is likely to be broadened over time, in continued partnership with these stakeholders and allies.

Strategy 1

Develop innovative models for public safety response and intervention that rely less often on fully armed law enforcement officers as the only or primary responder.

Cities around the country and the world have been pursuing alternative public safety approaches and interventions that promote de-escalation, reduce violence, and seek to address the underlying causes of incidents. In some cases, these models look to deploy non-police personnel where appropriate and divert people from enforcement and prosecution by providing them resources and support versus arrest. Expanding these models could allow police more time to focus on higher priorities and areas where the risk of violence is most pronounced. Such reforms include expanding use of the co-responder models, which enable police forces

to respond to calls alongside behavior and mental health professionals. Further recommendations relating to mental health support are available in Action 2.3 in **“Improve quality of life and reverse the rising rate of chronic diseases, particularly among populations experiencing health inequities.”**

At the same time, additional changes are needed to reduce the likelihood a crisis response or public safety intervention will turn violent. While individual police departments have made progress in this regard, and the actions presented below build upon some of these local efforts, national trends reveal there is still work to be done. A study of death due to lethal force by law enforcement shows that in nearly 25 percent of cases in which lethal force was used by a law enforcement officer, the case was directly related to concerns about a person’s mental health or substance-induced disruptive behavior.³ This study further demonstrates disparate outcomes by race – while most victims were white (53 percent), victims were found to be disproportionately Black (32 percent). Black victims were also more likely to be unarmed than victims of other races. Being more selective about when there is need for armed officer response is a step toward alleviating these disparate outcomes, while enabling local police departments to use their resources more efficiently and effectively.

- ▶ **Action 1.1: Support and provide incentives for municipalities to adopt a spectrum of alternative dispatch, co-response, and alternative response models.** Models nationwide have demonstrated the effectiveness of alternative response methods to crisis intervention and dispatch response by reducing incidents of violent encounters, issuing fewer citations, and providing better wraparound services and follow up interventions. Effective examples rely on collaboration among law enforcement agencies, community leaders and organizations, and social service partners, in creating co-responder models where police response and intervention is supplemented or substituted by social service, mental health, or other professionals. As municipalities take local actions⁴ like reviewing police budgets, assessing allocation of funds, and re-evaluating responsibilities that are currently performed by police, this action can help address all three of these issues. Some communities in MAPC’s region already have begun to implement co-response models and additional resources should be provided to strengthen these efforts. To be successful, communities should have multi-disciplinary teams and staff that can identify cases where service referrals can be made and assist individuals to find supports that would benefit them. Cities and towns participating in these efforts should convene to share best practices and identify areas for investment so that such effective practice(s) can be expanded.

3 [https://www.ajpmonline.org/article/S0749-3797\(16\)30384-1/fulltext](https://www.ajpmonline.org/article/S0749-3797(16)30384-1/fulltext).

4 <https://www.mapc.org/news/massachusetts-municipal-leaders-pledge-to-take-action-on-systemic-racism/>

Best/emerging practice: Models nationwide, like [CAHOOTS](#) (Crisis Assistance Helping Out On The Streets) in Eugene, Oregon; [MACRO](#) (Mobile Assistance Community Responders of Oakland) in Oakland, California; and [STAR](#) (Support Team Assisted Response) in Denver, Colorado, have demonstrated the effectiveness of alternative response methods to crisis intervention and mental health intervention. Many municipalities in Massachusetts have begun to explore such models, including [Northampton](#) and [Cambridge](#). The **Town of Winthrop** created its [CLEAR](#) (Community and Law Enforcement Assisted Recovery) Program, to offer an intra-departmental and community-team based approach to connect people struggling with substance use disorders to recovery resources. The program uses police data to identify people in the community with such needs who are then contacted directly by police and social service partners to offer them support. The City of [Lynn](#) also recently allocated \$500,000 for an unarmed response team that is based off the CAHOOTS model.

- ▶ **Action 1.2: Explore opportunities for police to engage residents and respond to incidents without firearms more often.** Police forces in other parts of the world often have officers conduct a range of work without carrying firearms. This could reduce the potential for deadly interactions, build trust and de-escalate certain situations. The Commonwealth and cities and towns should examine areas where unarmed enforcement could be implemented, such as transit fare evasion, traffic violations, and other civil infractions. It should be recognized that the prevalence of firearms in the United States makes it dangerous and difficult to achieve this action at scale, even as rates of gun violence in Massachusetts are well below the national average. For a more transformative shift in the prevalence of armed police forces in the United States, it is essential that the federal government pursue stricter gun control measures at the national level.

Best/emerging practice: London’s Metropolitan Police overwhelmingly comprises “bobbies on the beat,” who do not carry firearms – and whose priority is to deescalate and diffuse conflicts. This dates back to the founding of Metropolitan Police based on the principle of “policing by consent,” or policing based on mutually devised and agreed upon principles between the public and the select few who are tasked with enforcement. The approach helps promote transparency, accountability, and greater trust between police forces and the public. While this differs from the framework under which policing in the United States developed, this rethinking could be a model to assess when devising opportunities to use non-armed police units to respond to non-violent or low-risk calls.

- ▶ **Action 1.3: Ensure police officers across the Commonwealth receive the highest quality training with respect to engaging and supporting individuals with mental/behavioral health needs.** The implementation of co-response and alternative response mechanisms will not eliminate the need for law enforcement officers to receive more advanced training on the topics of trauma-informed care, substance abuse, domestic violence, and mental health emergencies, which officers will likely continue to confront. The Commonwealth should provide adequate resources for such training and facilitate collaboration between the Municipal Police Training Committee (MPTC) and state agencies such as the Department of Public Health and Department of Mental Health to improve the quality of training.
- ▶ **Action 1.4: End state and local deputization by federal immigration enforcement agencies.** Allowing local and state law enforcement to be deputized into immigrant enforcement efforts is a critical misuse of limited police resources. Furthermore, agreements between Immigrant and Customs Enforcement (ICE) and local police departments like the U.S. Immigration and National Act 287(g) program, which enables the Department of Homeland Security to deputize selected state and local law enforcement officers to enforce federal immigration law, create more mistrust between the community and law enforcement. Massachusetts is the only state in New England with such agreements in place. Residents are less willing to report crime and cooperate with investigations if they suspect local police departments are cooperating with federal immigration enforcement efforts, inhibiting effective community policing. This also has a negative toll on the quality of life and physical and mental health of our immigrant communities: a 2013 study found that 70 percent of undocumented immigrants surveyed indicated they were less likely to report if they were a victim of a crime.⁵

Strategy 2

Reduce instances of police misconduct and/or misuse of power and provide greater transparency.

In 2020, the Massachusetts Legislature took an important step forward with the passage of Chapter 253 of the Acts of 2020: An Act relative to justice, equity, and accountability in law enforcement in the Commonwealth. The law addresses several aspects of police transparency and accountability, including creating a mandatory certification process for police officers, requiring a court order when conducting a facial recognition search except in emergency situations, and placing strict limits on the use of no-knock warrants. While these are all important measures towards a more accountable system, there is still a lot more that needs to happen to uphold accountability and to create a more transparent public safety system. Now that this bill has been signed into law, the Commonwealth should maintain the momentum that helped pass this legislation to see these reforms through and enact deeper, more systemic change. To do so will require confronting the root causes of systemic racism that are evident in our public safety system but also permeate across all sectors of our society.

⁵ https://www.policylink.org/sites/default/files/INSECURE_COMMUNITIES_REPORT_FINAL.PDF.

- ▶ **Action 2.1: Provide resources to implement policies and practices enacted in Chapter 253 of the Acts of 2020 and pursue further reform.** Even before the most recent law, a 2019 report by the State Auditor found that police departments throughout the state had not met the Commonwealth’s training requirements.⁶ It is essential that the Commonwealth provide the budgetary, financial and personnel resources necessary to ensure compliance with new laws, standards and training requirements and seek meaningful consequences for failing to do so. Further reforms to policing that should be pursued include clearer definitions around use of force, requiring decertification findings to be referred to independent prosecutors, loss of all or part of pension benefits in certain circumstances if officer is found guilty of misconduct, and reforms to the arbitration system to ensure that misconduct results in timely and effective discipline and dismissal where warranted.
- ▶ **Action 2.2: Reform the Civil Service exam and recruitment process to pursue greater diversity and more thorough vetting of future law enforcement officers.** The current Civil Service recruitment system is a barrier to forming police forces committed to anti-violence and reflecting the diversity of Greater Boston. The use of a single exam to provide a list of potential police recruits is not sufficient to properly vet candidates. The Special Legislative Commission to Study and Examine the Civil Service Law should recommend legislation that allows any community to take their police departments out of the civil service system by a simple majority vote of their Town Meeting or City Council, without requiring legislative approval. That legislation should also ensure that leaving the civil service is not considered a working condition change that triggers renegotiation of collective bargaining agreements.
- ▶ **Action 2.3: Require police departments to consolidate and make data relating to police involvement and arrests and other metrics publicly available in a specified data standard.** The 2020 police reform bill already includes language requiring that the Department of Elementary and Secondary Education (DESE) and DPH collect information relating to police arrests, police-involved injuries, and deaths. However, the law does not specify the way in which data is published or reported. Some of the data sets shared should be disaggregated by categories including but not limited to age, race/ethnicity, sexual orientation, and gender identity. This data will help inform recommendations about non-armed policing and analyze other patterns to understand more fully trends in policing and crime. As a complementary strategy, the Commonwealth could develop a standard community survey that could measure the public’s trust in law enforcement.

⁶ <https://www.mass.gov/news/auditor-bump-calls-for-expanded-resources-and-accountability-for-municipal-police-training-in>.

Best/emerging practice: Citizens are overwhelmingly supportive of police worn body cameras.⁷ Governor Baker and the Executive Office of Public Safety and Security have established a five-year, \$20 million program for municipal departments to equip police officers with body cameras. While not a panacea for transparency, body camera footage can provide for officers' security, training, accountability, and community trust. Additionally, body camera footage can support the successful implementation of Actions 1.3, 2.1 and 2.3. The Law Enforcement Body Camera Task Force created under [Chapter 253 of the Acts of 2020](#) is establishing its recommendations now, and we hope it addresses concerns relating to footage tampering, sustainable funding for providing cameras, access to recordings, and privacy. MAPC is able to help municipalities procure police body cameras.

► **Action 2.4: Standardize and disaggregate data collected by law enforcement agencies to share with other public safety partners more easily like EMS and public health entities.** Public safety and public health entities are both working to address the opioid crisis and other substance abuse challenges, but they collect and report different sets of data that shed further light on the impact of this crisis on our cities and towns. The Commonwealth should create a data sharing standard for police to use when sharing data with EMS and other public health entities. This data sharing would facilitate better coordination across jurisdictions to respond more effectively to calls such as opioid overdoses, and to direct civilians to appropriate follow up services. This data should not be made available to the public and should be held to highest information privacy and security standards.

Best/emerging practice: In 2018, state officials created the Pennsylvania Opioid Overdose Network, which is a central repository for law enforcement entities and public health officials to use to track overdoses, naloxone administration, and investigative drug information.⁸ ODIN is now used by more than 1,300 agencies in all 67 counties in Pennsylvania, including 1,000 municipal police departments. This information has been used to help identify overdose hotspots and assess what resources are needed to give residents the support they need. Locally, communities such as Chelsea and Medford, have created what are called HUB-models, where the police department convenes municipal, social service and health care parties every week to consider effective post-incident supports for individuals who suffer from mental health or substance use disorders. Information shared at HUB-meetings is protected appropriately to ensure individual privacy and is not used for further police enforcement but to connect people to needed services.

⁷ <https://www.cato.org/policing-in-america/chapter-4/police-body-cameras>

⁸ <https://www.attorneygeneral.gov/data/overdose-information-network-data-current-county-state-police/>.

Strategy 3

Reduce incarceration and recidivism rates in the region, with a particular focus on at-risk youth.

The United States has the highest incarceration rate in the world, with about two million people (or nearly 1% of the U.S. adult population) in prison at any given time. This is largely a result of specific policy decisions made by federal and state governments, with the War on Drugs catalyzing a rapid rise in incarceration rates that continue to impact Black people disproportionately. While Massachusetts has among the lowest incarceration rates in the country, these disparate impacts are the same: Black people comprise seven percent of the total population in Massachusetts, but 18% of the Commonwealth's jails and 27% of its prisons.⁹ While Massachusetts has seen a decline in its total prison population (down 20 percent since 2000) and jail population (down ten percent since 2000), incarceration rates have been on the rise since mid-2020, signaling a potentially troubling trend.¹⁰

The pervasive social, economic, and public health impacts of mass incarceration cannot be overstated. Being in prison exacerbates a host of chronic health conditions, including asthma, hypertension, and diabetes, and worsens mental health. These stressors have dire consequences: former prisoners are 12 times more likely than the general public to die of any cause in the 2 weeks following release and 129 times more likely to die of a drug overdose.¹¹ Impacts extend beyond the individual, too. Research has shown that, when accounting for social costs (such as childcare, foregone wages, and increased criminality of children with incarcerated parents), the true cost of incarceration in the U.S. is close to \$1 trillion, about half of which is borne by families of the incarcerated and their communities.¹² Efforts to reduce recidivism and provide more resources to at-risk youth, coupled with broader reforms to our criminal justice system, can help alleviate the intergenerational burdens of incarceration and create the conditions that allow more people to thrive.

- ▶ **Action 3.1: Reduce prosecuting many low-level misdemeanors and continue to enact sentencing reforms that recognize that long-term incarceration for non-violent crimes can be counterproductive and exacerbate racial disparities in criminal justice.** Not prosecuting low-level misdemeanor offenses, such as shoplifting, disorderly conduct, and petty theft, not only keeps people out of the criminal justice system, but also reduces likelihood of reoffending. This policy has been implemented by Suffolk County District Attorney Rachael Rollins and a study of its impacts showed that individuals who were not fully prosecuted (i.e., did not have the case go beyond arraignment or conviction) were less likely to reoffend in the following two years.¹³ Additional DA offices in the Commonwealth should pursue similar policies to expand these benefits across the region. As an alternative, the parties should consider mediation, diversion efforts or other dispute resolution techniques to address such infractions.

⁹ <https://www.vera.org/downloads/pdfdownloads/state-incarceration-trends-massachusetts.pdf>.

¹⁰ <https://www.vera.org/downloads/publications/people-in-jail-and-prison-in-2020.pdf>.

¹¹ <https://www.annualreviews.org/doi/full/10.1146/annurev-publhealth-031811-124614>.

¹² https://www.prisonpolicy.org/scans/iajre/the_economic_burden_of_incarceration_in_the_us.pdf.

¹³ <https://www.nber.org/papers/w28600>.

- **Action 3.2: Expand and provide more funding for programs, such as treatment and harm reduction support, that support individuals with underlying mental health and substance use disorders and diverts people from the criminal justice system.** While estimates vary, mental health challenges are pervasive in the criminal justice system. Approximately 20 percent of inmates in jails and 15 percent of inmates in state prisons have a serious mental illness. The psychological toll of being imprisoned will only exacerbate any mental health challenges an individual may have been experiencing prior to their incarceration. Experiencing mental health challenges is not a crime, and there needs to a critical rethinking of how resources are allocated to support individuals in need of treatment, both within the population at large and among incarcerated individuals.

The Massachusetts Department of Mental Health has provided funding for local Police-Based Jail Diversion Programs (JDP) since July 2007, and these funds have been used to support first responder police training, local police-based projects, and local resources for diversion.¹⁵ The Commonwealth should continue to increase funding for this program, and consider opportunities to enhance coordination with other mental health treatment and harm reduction programs that are similarly working to provide more mental health support to residents.

- **Action 3.3: Expand re-entry programs that provide supports and services to youth and other individuals coming out of the justice system.** In order to determine successful strategies, the Commonwealth should fund professional evaluations of state, local, and private programs that aim to help former inmates to find jobs, stable housing, and treatment to see what local efforts are working. Harvard University’s Institute of Politics 2019 report titled Successful Reentry: A Community Level-Analysis recommended efforts focusing on addressing “health, employment, housing, skill development, mentorship and social networks, as these factors have the most significant impact on reentry success.”¹⁶ One example to consider is the now defunct Boston Reentry Initiative.¹⁷ Launched in 2001, the Boston Reentry Initiative was an interagency effort between the Suffolk County Sheriff’s Department, the Boston Police Department, the U.S. Attorney’s Office and the District Attorney’s Office to support male inmates between the ages of 17 and 30 at the highest risk of committing violent offences upon their release from jail. The program entailed providing mentoring services, case management, social service assistance, and vocational development to program participants, and was found to have a measurable impact in reducing likelihood of reoffending. The program lost federal funding in 2017, but its successes should provide a framework to launch similar programs in the Commonwealth.

14 <https://www.treatmentadvocacycenter.org/storage/documents/backgrounders/how%20many%20individuals%20with%20serious%20mental%20illness%20are%20in%20jails%20and%20prisons%20final.pdf>.

15 <https://www.mass.gov/doc/fy2019-annual-report-on-jailarrest-diversion-grant-program/download>.

16 https://iop.harvard.edu/sites/default/files/sources/program/IOP_Policy_Program_2019_Reentry_Policy.pdf

17 <https://youth.gov/content/boston-massachusetts-reentry-initiative-bri>.

- ▶ **Action 3.4: Broaden the expungement of records for youth with juvenile court records.** A criminal record can present a barrier for youth who are looking to get a job, receive financial aid for higher education, and receive professional licensure in some professions. Expungement allows youth to begin their lives as adults with a clean slate. This is particularly important in the case where low-level misdemeanor offenses continue to be prosecuted (see Action 3.1). While the [Chapter 253 of the Acts of 2020](#) addresses a subset of these cases, current laws still include arbitrary limits on number of offenses and timeline for expungement. The Legislature should build upon these changes and revisit these limits on expungement eligibility and the feasibility of automatic expungement in certain circumstances. In a similar vein, the Legislature should also pursue legislation like Illinois¹⁸, which prohibits sharing fingerprints of minors with FBI databases.
- ▶ **Action 3.5: Raise the age of juvenile jurisdiction to 20 years old and consider further age increases in future years.** Studies have shown that recidivism rates are lower for individuals processed in juvenile courts versus adult criminal courts.¹⁹ Therefore, keeping more cases out of the adult system can reduce crime and help emerging adults to exit the criminal justice system and not return. The Department of Youth Services (DYS) system could currently absorb 18-year-olds without additional funding or new facilities; the agency would need to reorganize their funding and programming to do so. As it further transitions to take on young people up to 20, an evaluation of funding and facility capacity would be worthwhile. However, one of the benefits of the juvenile system is that as many as half of its participants are in the community, and community-based programs are much more cost effective than adult prisons. Since Massachusetts raised the age to include 18-year-olds, caseloads in the system actually went down²⁰. Overall, raising the age will likely save money, reduce pressure on facilities and produce better outcomes for those engaged.

Best/emerging practice: The state of Vermont raised the age for juvenile jurisdiction to include 18- and 19-year-olds by 2024.²¹ The new law includes certain exceptions for serious violent crimes that would be handled in adult criminal court. Raising the age of juvenile jurisdiction can be done in a step-by-step process over the next five years to reach 19 from the current 17, enabling the youth justice system to transition effectively.

Action 3.6: Create and fund a new state budget line item for youth diversion programs by examining and researching data to determine which offenses should have diversion mandates. Currently, no state entity that provides guidance or technical assistance on how to shape effective programs. Instead, youth diversion efforts are left to the discretion of police, clerk magistrates, district attorneys, and judges. Some DA offices, including the Middlesex DA and the Cape and Island DA, have advanced their own programs. A report from the Juvenile Justice Policy and Data Board found that there is wide variation in diversion program and policies across the

18 <https://www.njjn.org/uploads/digital-library/Illinois-Prohibits-Sending-Juvenile-Arrest-Records-to-FBI-SB-1030.pdf>

19 <https://digitalcommons.newhaven.edu/cgi/viewcontent.cgi?article=1032&context=criminaljustice-facpubs>.

20 <https://www.sentencing-project.org/publications/bringing-more-teens-home-raising-the-age-without-expanding-secure-confinement-in-the-youth-justice-system/>

21 <https://www.juvjustice.org/blog/1174>

state, and this lack of standardization is likely exacerbating inequitable outcomes in our criminal justice system. To confront these challenges, the Legislature should fund a new budget line item to create a statewide youth diversion program. A state youth diversion entity should provide guidance and standards for such programs and offer technical assistance to help new programs get started and enable sharing of best practices. These guidelines and standards should be informed by data as to which offenses are most appropriate for diversion. Other examples to look to when establishing a statewide framework include the Juvenile Diversion Policy of the District Attorney of Johnson County, Kansas, and the Court Designated Worker Program in Kentucky.^{22, 23}

Strategy 4

Ensure that police departments and community-based organizations have the necessary resources to work together to prevent crime and support at-risk individuals.

Violent crime and the threat of violent crime takes a serious mental toll on individuals and communities. Academic achievement, for example, is negatively impacted by exposure to violence, as instances of local violence can often weigh on the minds of children as they approach cognitive assessments, reducing test scores in a statistically significant way.²⁴ Studies have also linked exposure to violence to health problems such as trouble sleeping, asthma, obesity, and high blood pressure.^{25, 26, 27} Nationally, violent crime has declined in almost every major American city from its high point of the early 1990s, although most recent data shows that homicides and shootings rose particularly as COVID-19 restrictions started to ease. In the City of Boston, the murder rate fell by more than 50% between 1993 and 2014. The significant gun violence reductions Boston has witnessed since the late 1990s have improved quality of life in many of its neighborhoods. Community-based strategies were an important part of that story but so were aggressive policing tactics focused particularly in communities of color. In some cases, these approaches created their own victims and deepened perceptions of policing as inherently biased. Avoiding a return to the levels of violent crime observed the 1980s and 1990s is vital to the future of our region and should be achieved through strengthened community-based interventions and targeted policing aimed at the small number of people most responsible for violence.

- ▶ **Action 4.1: Increase funding for programs that take a community-centered approach to reducing gang and youth violence, including the Senator Charles E. Shannon Jr. Community Safety Initiative and the Safe and Successful Youth Initiative.** The Charles E. Shannon, Jr. Community Safety Initiative is an annual grant program that funds regional and multi-disciplinary approaches to combat gang violence through both suppression and prevention activities. Specifically, the Shannon Grant encourages applicants to “propose programs that target geographical locations that demonstrate high levels of gang violence”. The Legislature should increase annual

22 <https://da.jocogov.org/juvenile-diversion>.

23 <https://kycourts.gov/Court-Programs/Family-and-Juvenile-Services/Pages/Juvenile-Services.aspx>.

24 <https://www.pnas.org/content/pnas/107/26/11733.full.pdf>.

25 Sternthal MJ, Jun HJ, Earls F, Wright RJ (2010) Community violence and urban childhood asthma: A multilevel analysis. *Eur Respir J* 36:1400–1409.

26 Heissel JA, Sharkey PT, Torrats-Espinosa G, Grant K, Adam EK. Violence and Vigilance: The Acute Effects of Community Violent Crime on Sleep and Cortisol. *Child Dev.* 2018;89(4):e323-e331. doi:10.1111/cdev.12889.

27 Functional connectivity in central executive network protects youth against cardiometabolic risks linked with neighborhood violence. Gregory E. Miller, Edith Chen, Casey C. Armstrong, Ann L. Carroll, Sekine Ozturk, Kelsey J. Rydland, Gene H. Brody, Todd B. Parrish, Robin Nusslock. *Proceedings of the National Academy of Sciences* Nov 2018, 115 (47) 12063-12068; DOI: 10.1073/pnas.1810067115.

funding for both the Shannon Grant and the Safe and Successful Youth Initiative (SSYI), two programs that dedicate resources to the places and people who need them the most. Eligible uses of program funds should remain flexible to meet specific community needs, and any requirement that recipients of funding contribute to a statewide gang database should be reevaluated, in the context of collateral consequences of a gang label. Additionally, there should be enhanced and expanded opportunities for regional collaboration within these programs.

- ▶ **Action 4.2: Increase funding for state and federal-level programs that provide funding for collaborative efforts among police departments, nonprofits, community organizations, and others.** This includes federal grants from the Department of Justice, like the Edward Byrne Memorial Justice Assistance Grant (JAG) program. Several MAPC communities received federal grants through the JAG program, which provides critical funds to municipalities for crime prevention, mental health programs, drug treatment, victim assistance and witness protection programs.

Strategy 5

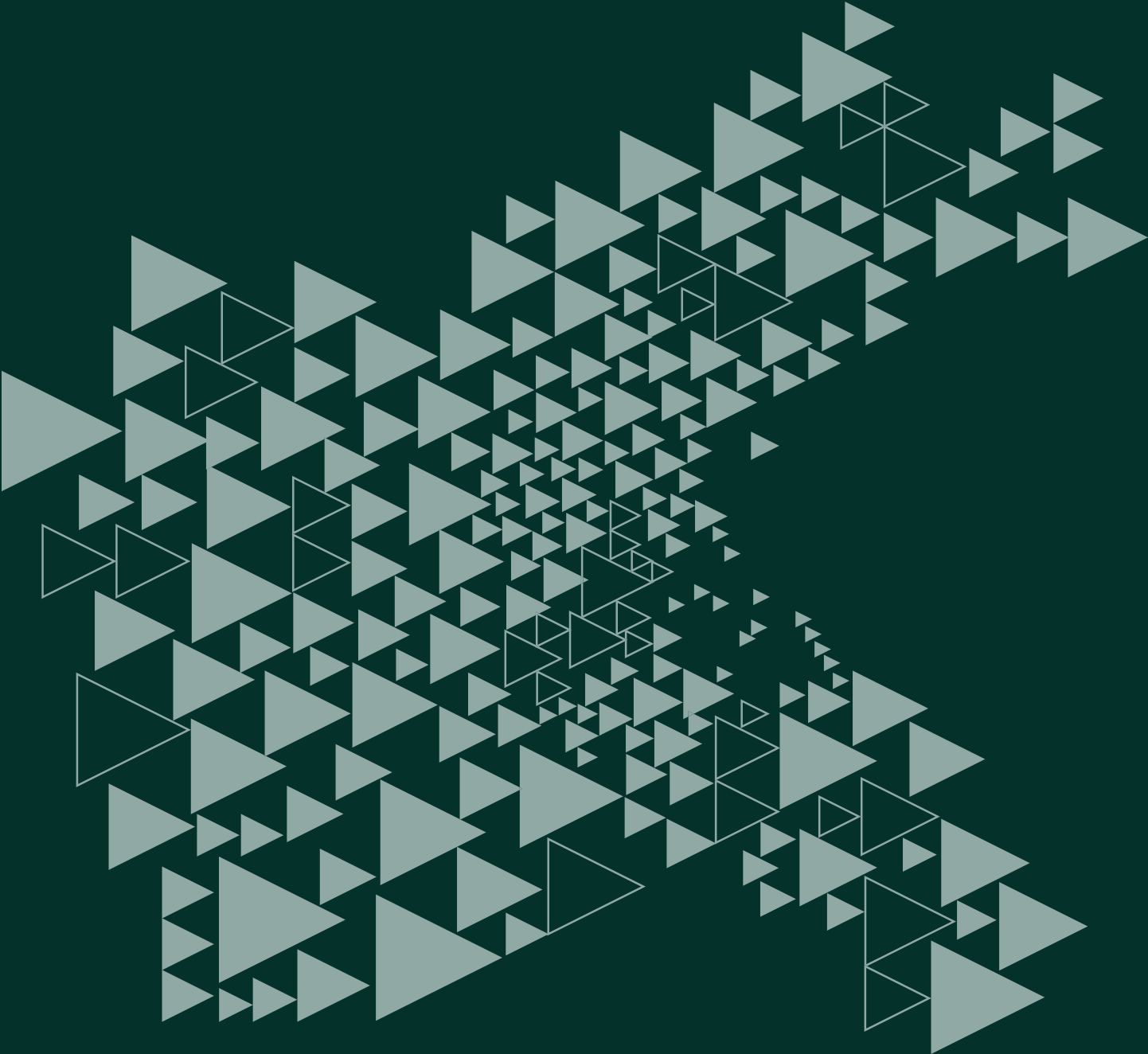
Provide increased resources and education for reentry into society. Investments in reentry programs are a key strategy for reducing recidivism.

There are several reentry programs in operation in Massachusetts today. The Massachusetts Parole Board operates several regional reentry centers across the state. Staff help former inmates to obtain food assistance, renew a driver's license, find work, open a bank account, among other activities. The District Court of Massachusetts also offers the Court Assisted Reentry Effort (CARE), designed for individuals with substance abuse history, and the Reentry: Empowering Successful Todays and Responsible Tomorrows (RESTART) program, which entails a weekly support court session and cognitive behavioral therapy. In addition to more resources to strengthen these programs, the Commonwealth should look to other means of ensuring home communities obtain the resources they need to support reentry, and that formerly incarcerated persons are treated with dignity as they reenter society.

- ▶ **Action 5.1: Change how inmates are counted in the US Census so that it is based on home address of the incarcerated individual, not the location of the incarceration facility.** Currently, people incarcerated are counted in the community where the facility is located, which ultimately leads to a higher count in that location and therefore more funding, since population counts are used in funding formulas. In many instances, these correctional facilities are located in wealthier and rural municipalities. Instead, inmates should be counted based on their home address, which will help to generate resources that are often needed by communities heavily impacted by the criminal justice system. Those additional resources might even support reentry efforts.

► **Action 5.2: Restore the right to vote to individuals incarcerated on felony charges and standardize education and outreach to all incarcerated individuals about their voting rights.** In Massachusetts, people convicted on felony charges temporarily lose their right to vote during their sentence. The right to vote is restored upon release from prison if they re-register to vote. Restricting one's ability to vote does not advance reentry efforts and has negative rehabilitative consequences. In fact, disenfranchisement in Massachusetts happened relatively recently – legislation passed in 2002 through a ballot initiative. The Commonwealth should reverse course and restore the right to vote for individuals incarcerated on felony charges. Voting rights and criminal justice advocates point to examples of returning citizens not voting after they were incarcerated (regardless of the charge), because there is little information made available specifically regarding re-registering to vote upon release. Currently, Maine, Vermont, and Washington D.C. allow individuals with felony charges to vote in elections even while they are incarcerated.

MetroCommon 2050 × Scenario Planning
Planning for an Uncertain Future



MetroCommon 2050 is Greater Boston’s long-term land use and policy plan. It looks out nearly three decades to the year 2050. It’s a long time away, but even as we focus on the needs of today and tomorrow, we need to think about how our present-day actions will set us up for a sustainable, equitable, and prosperous region 30 years from now.

Introduction to scenario planning

Three decades ago, our region looked very different than it does today. In 1990, cell phones were rare accessories for business executives, and a massive, elevated highway split downtown Boston. Now there’s a high-powered computer in nearly every pocket and a beautiful greenway stretching north to south across the city’s downtown. It’s hard to know what 2050 will look like, but we can be sure it will not look the same as today.

Some of the changes will be of our own choosing. Just as the region decided to tear down the Central Artery and build a park in its place, we can take the initiative to build new infrastructure, change development rules, or provide new services and supports to the region’s residents. Yet even as we take charge of our future, the world will be changing around us, and we will need to respond to conditions and constraints outside of our control.

Unfortunately, we don’t yet know what those changes will be. There could be new technologies or societal trends that make it easier to achieve our goals, or much harder. The COVID pandemic has shown us just how quickly the world can change and how little certainty we should have about things that seem fixed. MetroCommon acknowledges this unpredictability and seeks to create a framework for responsible long-term planning – even in the context of deep uncertainty.

Policies tailored to today’s needs may not work in the same way under radically different conditions. For example, it seems like a no-brainer to fix leaky natural gas pipelines that are contributing to climate change; but if technology, federal policy, and market conditions enable rapid electrification of home heating and cooking, those pipelines (and their leaks) may become obsolete by the year 2050. How should the region decide how much, and where, to spend resources on fixing pipes when we don’t know how long those investments will be useful? The way we tackle conundrums such as this one will determine whether the people of 2050 see the decisions of the next few years as prescient, short-sighted, or futile.

If we hope for prescience, we must be aware of the many uncertainties we face. What are the powerful societal, economic, and political trends that could shape the world? What emerging technologies and practices could have a major impact if they take root? What seemingly inevitable transformations might “fizzle out” leaving the world unchanged?

Once we have a good sense of key uncertainties, we can assess how those uncertainties might affect the urgency, efficacy, or relevance of potential policy interventions. Some policy ideas are “robust,” meaning they will be effective across a wide range of conditions. These policies can be pursued without much risk. Others may be contingent on external conditions – successful under some, while ineffective or even counterproductive under others. In these cases, it will be critical to track conditions and determine when those policies should be initiated, accelerated, adjusted, or discontinued, as conditions warrant.

Key Uncertainties

With the assistance of public participants, external advisors, and extensive research, MAPC identified four key uncertainties likely to have an outsized impact on the region’s future.

► **Regional Demographics**

Changes in our population will influence housing demand, tax revenue, and transportation needs. In this section we examine who might live in the region by 2050, what kinds of homes might they want, and what services they might need.

► **The Economy**

Changes in our key industries and the nature of work will have large impacts on the labor force needed in Metro Boston, what kinds of jobs may be available, and the training needed for the workers of the future.

► **The Future of Travel**

Technology and new forms of mobility will affect travel demand, traffic congestion, transit revenue, and the environment. We examine how autonomous vehicles and emerging transportation services might – or might not – radically change getting around; and we explore how the explosion of remote work, virtual communication, and delivery services could reduce the need for travel.

► **Federal Policy**

Metro Boston and Massachusetts operate within a federal context that expands or constrains what we can do, and the resources we have available. We look at how changes in federal healthcare policy could affect our residents, hospitals, and healthcare firms; how federal regulations could foster or impede economic opportunity; and the resources we may have available for transportation, social programs, and climate adaptation.

What We Learned

Over the course of the MetroCommon planning effort we engaged people in the region to better understand what it means to be ready for uncertainty. Our discussions led to four main takeaways to better plan for policy and action.

- ▶ **Centering equity is not only important to eliminate existing disparities, but it will also make the region stronger and more resilient in the long-run.**

We know that the fewer disparities that mark our population, the easier it is for us to adapt to uncertainty. Many participants noted that when the economy is doing well it should be harnessed to increase equity in the region, invest in public needs, and make us better able to withstand periods of economic decline.

Along the same lines, it's critical that we center the voices of those most disenfranchised in our planning efforts to better understand the needs of all residents. Without this framework, it's easy to think of certain future uncertainties "in aggregate," for example, "What happens if we all work from home in the future?" The truth is, working from home will never be possible for some front-line workers. Sanitation workers, childcare workers, health aids, and service workers all need to attend their jobs in-person and probably will need to do so for decades to come. It's critical that our policy conversations center the experiences of everyone, particularly those who will be most impacted by future changes, or who might be left behind when the rest of us see change.

- ▶ **We need bold action to get to our goals, so we must make the most sustainable, equitable choice the path of least resistance, even if it means deprioritizing short-term profit.**

Our MetroCommon goals are bold. They imagine a future where everyone is able to thrive and our region is able to withstand a variety of challenges. Doing this will require financial and regulatory incentives and disincentives that enlist the private sector as a partner in reaching our vision for 2050. Participants also noted that it is critical that desired choices, such as smart-growth development and low-emission travel, become the easiest path for investors and individuals to make.

- ▶ **We need new collaborative frameworks for decision-making that center residents' needs**

A number of participants noted the need for regional collaboration to address any major challenges that may come our way. In addition to collaboration, a recentering of power is needed. A government should be the working body for the people, so it is critical that all people are able to discern and detail their desires. If distrust of the federal government continues to increase, it is critical for local governments to distinguish themselves as an effective working system. Challenging the "status quo" can be difficult, but responding to future uncertainties may provide unique opportunities to change priorities incrementally over time and express our values in new ways.

► **We need to be both proactive and adaptive in the way we tackle and respond to the future.**

This insight stresses the need to create flexible systems and structures, but creating these systems ahead of time will help avoid the need to be reactionary. For example, if agencies switch to flexible online forms and database structures, they will be able to collect, organize, and analyze data in predictable ways – regardless of regulation need. In every workshop, participants noted that “how and where people live will change.” This stresses our need for flexibility in the systems and structures we create to respond to the new ways that people live and work. Participants also noted the need for government to adapt quickly to new technology and regulate for-profit companies before they use their powerful influence over policy to decide the rules for themselves.

The Action Areas explore the history and challenges of creating a more equitable, sustainable, and collaborative region. With this learning, we aimed to develop robust policy recommendations that can succeed regardless of how the future unfolds. Examples of these robust recommendations include reducing racial disparities in wealth and health outcomes, investing in climate-forward green infrastructure and design, protecting our critical natural resources, and improving the performance and decision-making of our local and regional governments. And we include many recommendations that modify the existing regulatory environment and create new incentives to spark the change we will need to reach our long-term goals.

What is MetroCommon 2050 and how does scenario planning fit in?

MetroCommon 2050 is Greater Boston’s long-term plan. It’s about ways the Boston region can become more equitable, more prosperous, and more sustainable. MetroCommon is built on goals – that is, what people have told us they want. It defines action areas that give today’s issues context, and that reveal systems that require intervention. It goes deeply into key topics, finding insight in the trends, patterns, and idiosyncrasies of the region: research. The plan thinks through key uncertainties, looking at how the world and region might change, and how those changes could affect us and what policy-makers should be taking into account. And it makes specific recommendations for policy changes that can get us to our goals. The part of the plan you’re looking at now is scenario planning.

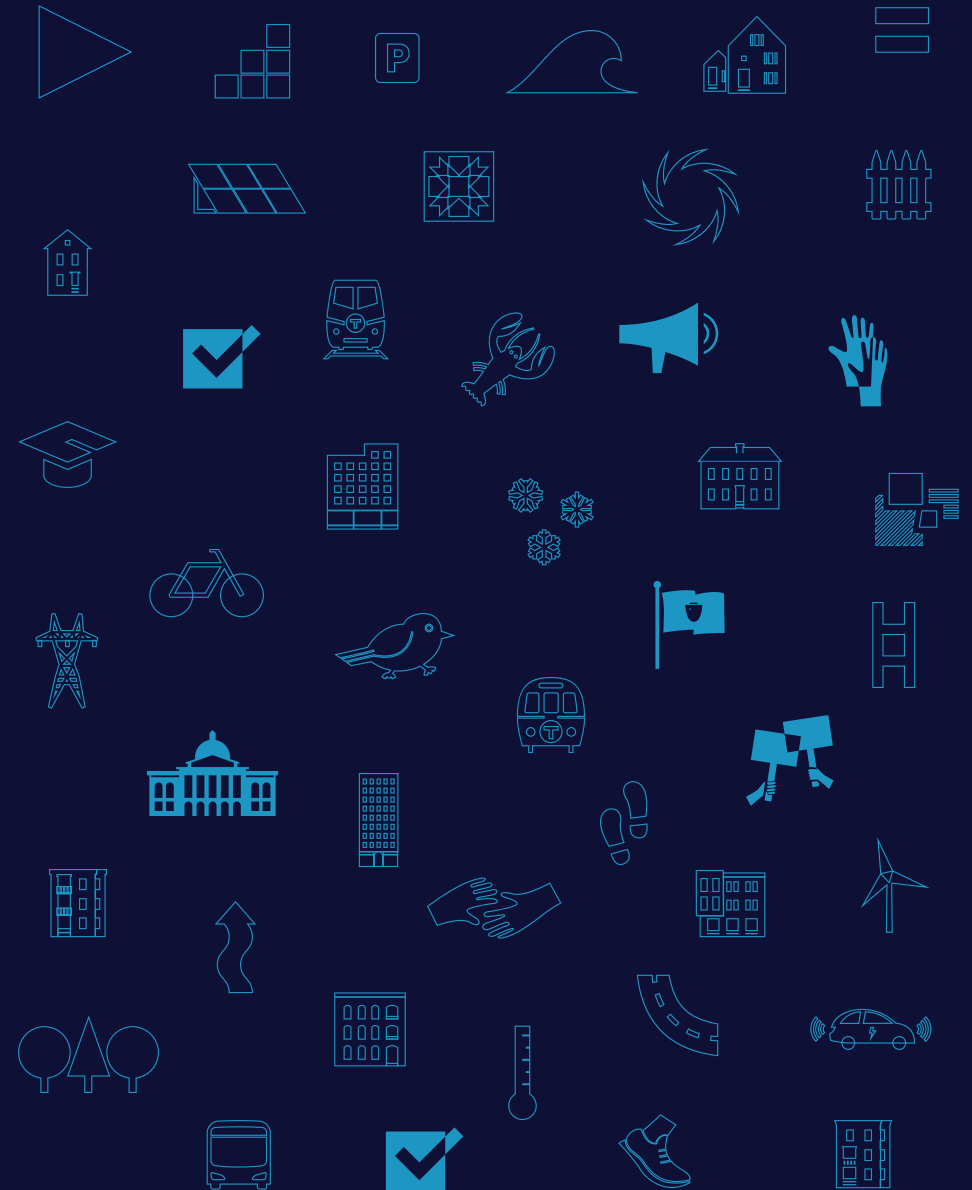
How did MAPC get input on the MetroCommon 2050 scenario planning?

Community engagement is a core practice at MAPC. So is the practice of confirming and challenging what we think we know. We “ground-truthed” every component of MetroCommon 2050 with people too often left out of planning processes to make sure the plan was worth implementing. The MetroCommon 2050 scenario planning was shared for feedback in the following ways:

- ▶ Scenario planning **developed by diverse team of staff**
- ▶ **Scenario Planning Advisory Committee** [\[link\]](#) formed
- ▶ Scenario planning **vetted by Scenario Planning Advisory Committee**

Read more about our MetroCommon 2050 community engagement [\[link\]](#).

Future Uncertainties



The Economy is Made of People



How many jobs Greater Boston will offer in 2050, and in which industries and occupations, are factors that can't be known for sure – but they'll influence the region profoundly. That makes our future economy a major uncertainty for which we must prepare.



There are some things we know about our thirty-years-from-now economy: it will be made up of workers – regardless of how much of life becomes automated. And some goods and services will be the same as ours today, and some will be different.



Remembering that our economy is based on workers reminds us of the importance of housing and transportation as ways to grow the economy. Ultimately, the region's available labor force will impact how many jobs our region can hold.

What We Know

- ▶ **Wage polarization, benefits elimination, and worker reclassification** has reduced economic security for many workers. That trend will likely continue if unchecked.
- ▶ **A limited supply of workers** will lessen the likelihood of robust job growth. Current racial disparities in education and training, if they continue, will limit potential for current residents to meet industry labor needs.
- ▶ The **demand for care work and other in-person jobs** that require human skill and emotional intelligence will likely grow.
- ▶ Our region's **economic competitiveness** is rooted in knowledge industries, especially medicine, biomedicine, technology, that are often linked to institutions of higher education



What We Don't Know

- ▶ Changes in higher education may fundamentally alter the region's role as a magnet for students and researchers. Nationally, the population of college-age people has declined. Add to that, there's an increase in the quality and perceived value of remote learning, and a growing aversion to student debt. Will these or other factors reduce enrollment at universities and the number of students living and working in the region?
- ▶ Automation and digital platforms may substantially alter the need for labor, but may create other employment opportunities. How will this play out?



Takeaways

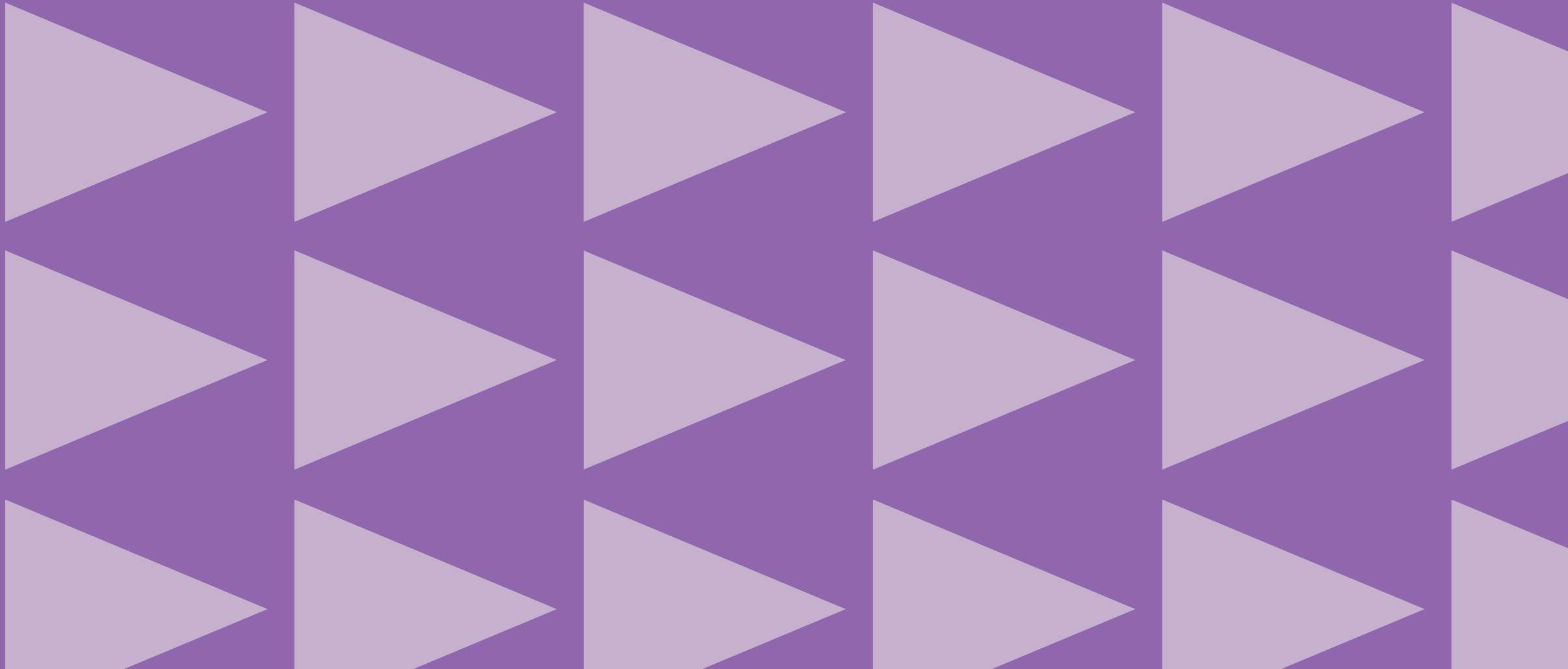
▶ The region will need to prepare for a future economy not predicated on absolute “job growth,” but on increased productivity and wage growth.

▶ To help close the racial opportunity gap and provide industry with skilled labor, we will need to make the most of our resident workforce through education, workforce development, and training programs. We will need childcare and other family supports.

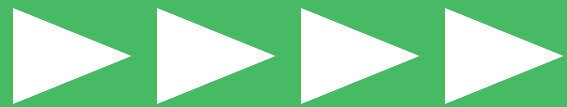
▶ Potential changes in higher education present a significant threat to the region’s major employers and region’s economic competitiveness. Higher education institutions must plan for a variety of possible changes alongside government and institutional partners.

▶ If the erosion of wages, employer-provided benefits, and federal social safety net continues, state and local governments will need to step in to create new legislation or fill the gaps.

Learn more about MAPC's research
on the future of work [here](#)



The Future of Travel



How We Move. How Often We Move.

- ▶ Transportation is a fundamentally regional issue – people travel all throughout Metro Boston, and we all share a network of roadways, transit systems, bike routes, and other infrastructure. It is already clear that the transportation system of today is incapable of meeting the needs of tomorrow. Congestion is among the worst in the nation; commuters of color experience disproportionately long commutes when compared to White commuters; transportation produces a third of our GHG emissions; deferred maintenance undermines safety and reliability; and subways and roadways are already disrupted during major storms.
- ▶ Meeting the transportation challenges of the future will require both regional coordination and local action. It will also require a sense of how the region’s travel needs, vehicles, and transportation services may change over the coming decades. As with other uncertainties, some aspects of future travel are relatively certain: most trips will start and end in places that are already built up; most travelers will value speed and convenience over other considerations; and highway expansion just induces more demand and congestion.
- ▶ Yet many other aspects of travel were highly uncertain before the COVID-19 pandemic and are even more so today. Transportation technologies and services have evolved rapidly and will continue to do so over the next three decades. The proliferation of ride-hailing, delivery services, e-commerce, e-bikes, and micromobility demonstrate how quickly new modes and services can be adopted, and how disruptive they may be to existing transport services, roadways, and communities. Just as the impact of new technologies and services would have been hard to predict in 1990, the upcoming impact of autonomous vehicles, mobility as a service, and delivery services are hard to foresee.
- ▶ Similarly, the COVID 19 pandemic has demonstrated that disruptions can also drastically reduce the need for travel. Remote work, remote school, telemedicine, and virtual parties have all allowed people to do many things without leaving their home. Certainly some – though not all – of these trends will continue after the pandemic, especially as communication technology improves and virtual reality closes the gap between virtual and in-person interaction.

What We Know

- ▶ The maintenance backlog, structural deficit, and contractual constraints at the MBTA make it difficult and time-consuming to invest in system expansions, increased service frequency, and innovative service delivery.
- ▶ Auto-oriented development and abundant low-cost parking contributes to auto ownership and lower usage of transit and other modes, even when they are available and convenient.
- ▶ Rapid growth of TNCs, an explosion of micromobility diversity, advances in autonomous vehicles, and the growth of e-commerce demonstrate the rapidity with which the transportation landscape might change in coming decades.
- ▶ Imperatives to create a climate resilient and low-emission transportation system will spur investment into new technologies and infrastructure, as well as dramatic changes in the types of vehicles available to consumers and travelers.
- ▶ The COVID-19 pandemic has demonstrated the viability and limitations of remote options for some kinds of work, schooling, events, and communications. The disparity in the racial makeup of workers in occupations with high and low potential for remote work can exacerbate inequities in time spent commuting.

What We Don't Know

- ▶ Transportation network companies operate on an unsustainable business model, losing billions of dollars each year. Their survival depends heavily on a steady stream of capital from investors, and from a driver/employee classification that keep costs low by limiting companies' obligations to provide benefits. Changes in investor preferences or labor rules could upend this business model and result in substantial contraction of service or higher prices. Will this happen and dampen ridership and transportation system impacts?
- ▶ The prospect of fully autonomous vehicles running in general traffic in the next decade remains highly speculative. Will the many technological, ethical, and economic barriers challenges be met, and result in the widespread adoption of autonomous vehicles?
- ▶ The pandemic is likely to result in a long-term increase in time spent working remotely. How many jobs will become fully remote, and how will changes will affect location choice decisions for workers and firms?
- ▶ Will remote work, e-commerce, and virtual communications reduce the overall need for travel, or enable/prompt more discretionary trips that mitigate any reduction in total trips?



Takeaways

▶ The distinction between 'public' and 'private' modes of transportation is likely to become blurrier. Public agencies should seek opportunities to leverage private transportation providers for service delivery, where that can be done equitably (for both riders and drivers) and sustainably.

▶ As new transportation technologies and services are deployed, new forms of inequity and exclusion are likely to result, prompting a need for modernized regulations and programs to ensure equitable service to different geographic areas and diverse populations

▶ If the region can decrease its individual auto ownership, it will need more evacuation and emergency response plans that can accommodate large numbers of households without a personal vehicle.

▶ Competition for road rights-of-way – for cars, parking, transit, micromobility, stormwater management, and pedestrians – will increase. If left unmanaged, this competition will contribute to congestion, collisions, and conflict. While it's unknowable which modes and vehicles will be most prevalent in the coming decades, it is clear that more proactive management of roadway space – through pricing, dedicated lanes, and reconfiguration – will be needed to ensure public benefits are maximized.

▶ Ride-hailing, e-commerce, residential dispersion, social distancing and transit aversion, autonomous vehicles all drive increased auto usage. Even if only some of these driving forces continue, indications are that underlying trends and future uncertainties will contribute to rapid increases in vehicle miles traveled (VMT) and associated congestion, energy demand, collisions, and other impacts. Interventions targeted to VMT reduction will need to be a public policy under nearly any conceivable future.

Learn more through MAPC's research on the [impact of ecommerce](#), [TNCs](#), and [automated vehicle technology](#).



The Future of Federal Policy



Massachusetts Operates in a Greater System

In addition to the many behavioral, economic, and technological factors that are out of our control, political decisions at the federal level will have a profound influence on our future.

This plan was created during a period of great political uncertainty at the federal level. While some of this uncertainty may seem to ebb and flow with the two- and four- year election cycles, it is certain that things will look different in 2030 and 2050 than they do today.

Federal policy influences almost all the work that MAPC does as an agency and cares about as an institution. However, for the purposes of this plan we have decided to focus on three major uncertainties that could have broad influences on our region and would require us to react at the state and local level.

- ▶ **The future of healthcare policy**
- ▶ **Federal environmental regulations and climate change policy**
- ▶ **Federal funding for local governments, infrastructure, and disaster relief**

What We Know

- ▶ Federal investments in research, healthcare, and education are important drivers of the region's economy.
- ▶ Public entities and individual homeowners are highly dependent on federal support for disaster response and recovery.
- ▶ The region and Massachusetts are powerless to establish fuel economy standards and face substantial political challenges when attempting to implement carbon pricing
- ▶ Local and state governments have seen an influx of funds through ARPA that provide opportunities for significant investment in coming years.



What We Don't Know

- ▶ Federal climate policy and U.S. leadership at the international level is essential to achieve global greenhouse gas (GHG) reductions and mitigate the worst impacts of climate change. The current administration has taken a proactive approach. Will these policies continue?
- ▶ Efforts to restructure the nation's healthcare system could result in a dramatically different economic environment for hospitals, biomedical and pharmaceutical companies, and insurance companies. Will these efforts create healthier environments and make healthcare more affordable? Will they diminish job growth, income, and tax revenue in Metro Boston?
- ▶ Federal subsidies for rebuilding after natural disasters are politically popular but inefficient and contribute to repetitive loss. Will disaster relief programs be reformed, and will that result in increased abandonment and retreat from vulnerable areas?



Takeaways

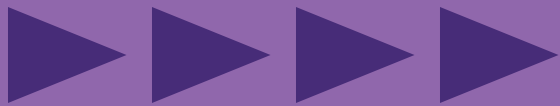
- ▶ In a future where the federal government is either ineffective, unreliable, or not offering local support, it will be more critical than ever for local governments and state actors to work together toward common goals. Federal dysfunction and diminished aid to states and localities could increase the need for local and regional revenue sources
- ▶ The biomedical and pharmaceutical industries in the region are vulnerable to changes in federal policy. Local government should work with industries to plan for future uncertainties.
- ▶ State and local interventions in workers' rights, the regulation of emerging industries, and environmental protection may be needed if legislative or judicial withdrawal from the existing federal role continues.



Learn more about MAPC's research on climate vulnerability, sea level rise, and legislative policy.



Demographic Change



How Do We Plan for Residents of Tomorrow?

- ▶ In order to plan for an equitable, sustainable, and prosperous region in 2050, we need some sense of who we are planning for. How many people should we expect? How many will be young or old? How many and what kind of units will be needed to house them? Answers to these questions will determine what type of housing the region will need, the transportation services we must invest in, along with what other public services state and local governments must provide.
- ▶ The basic components of population change are simple: everyone gets older at the same rate; babies are being born every day; some people move out of the region, while others move in; and some of our current residents will pass away before 2050. An understanding of the basic trends in these elements can allow us to prepare for generational shifts over time.
- ▶ For example, Baby Boomers still comprise a substantial share of the region's workforce and homeowners, but over the coming decades they will be entering new life stages. By 2050, all members of the Baby Boomer generation will be over 85 years old. While we don't know exactly when or how many Boomers will move out of the region, pass away, or retire, we know enough to begin estimating how their changing needs for housing, income, and services may create both challenges and opportunities for the region. For example, we can predict with some certainty that there will be a large, if gradual, exodus from the workforce. We can predict there will be a greater number of older adults in need of transportation services and a larger number of homeowners on fixed incomes.



What We Know

- ▶ Our region is getting older, and we need to prepare our housing, transportation, and other service sectors to accommodate those changes.
- ▶ We've likely hit the peak number of children in the region through 2050.
- ▶ Demographic shifts, even without changes in household formation preferences, will fundamentally change the type of households living in our region in 2050.
- ▶ New housing demand will likely outpace population growth because of declining household size.



What We Don't Know

- ▶ Will future generations have children at rates similar to those of their parents? In recent decades, birth rates in Massachusetts have declined steadily, and average maternal age has increased. In other words, mothers today tend to have fewer children, later in life. These patterns can be tracked over recent history, but how will they change going forward?
- ▶ The nation will experience more frequent and more extreme weather events related to climate change in coming decades. How would possible climate-change-related migration impact the Metro Boston region?
- ▶ What will be the rate at which seniors move out of our region after retirement and the rate at which recent college graduates and young workers remain in our region? How will this impact how many people live in our region, and the type of housing and services they'll need?
- ▶ How will changes in remote work policies impact domestic and international migration in the long term? If more jobs become fully remote, will Metro Boston experience less migration as families look for areas with lower housing costs?



Takeaways

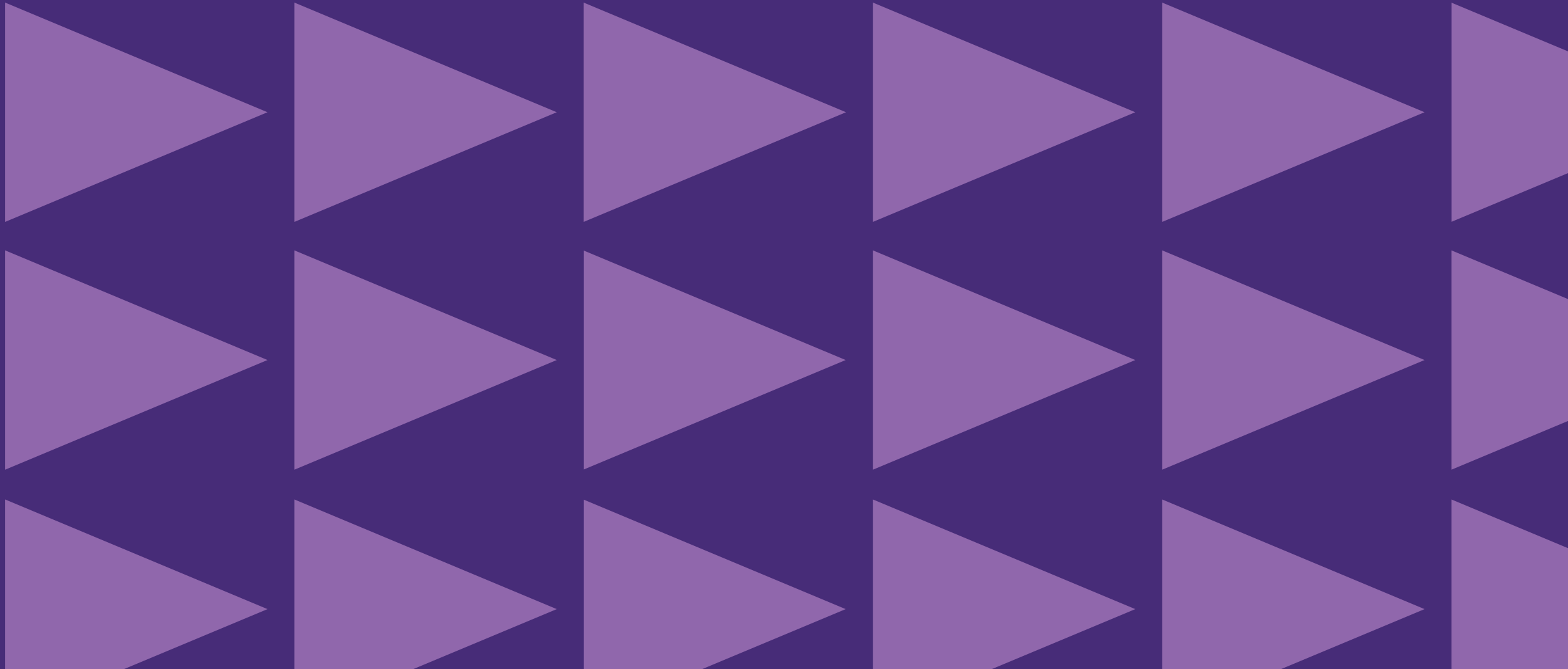
▶ Under every scenario, the region’s senior population increases significantly. More residents will be on fixed incomes and will have difficulty paying higher property taxes, and more residents will need home healthcare, accessible transportation, and other senior services.

▶ The need for new family housing depends on where and how seniors decide to live. The number of families with children in the region is likely to grow only modestly, resulting in small net increases in demand for family-sized housing. However, if current trends continue, seniors will occupy a substantial share of the family-sized units in the region, and many more 3+ bedroom units will be needed to accommodate young families.

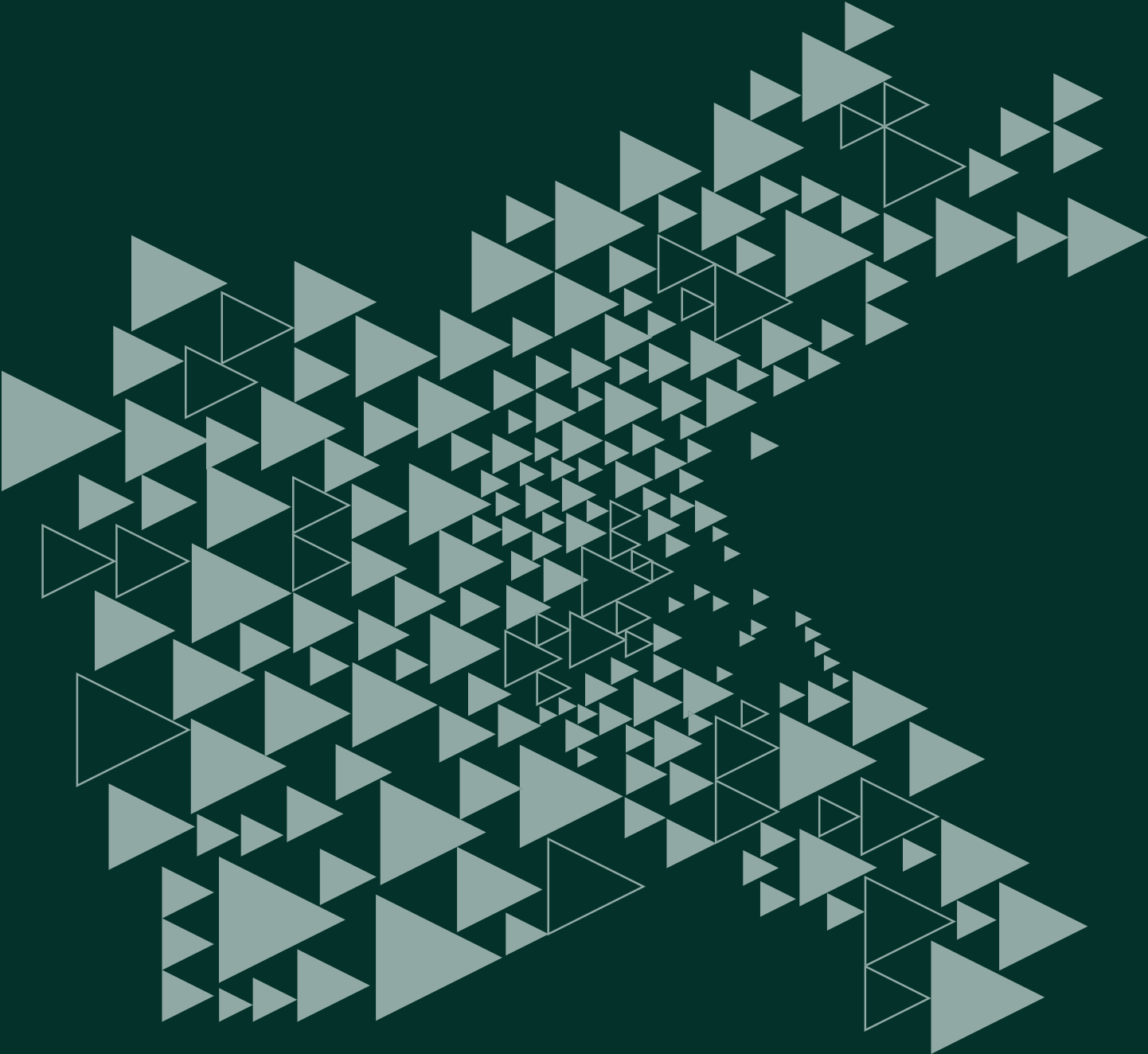
▶ Metro Boston will continue to see changes in the way people live. If future generations continue to get married later in life, or not at all, the number of households and therefore the type and size of housing units will change. The uncertainty in so many aspects of life over the next thirty years highlights our need for flexible policies, particularly around housing construction and transportation investments.



Read more about our research on demographics and scenarios for the future [here](#)



MetroCommon 2050 × Research
Understanding our Region



MetroCommon 2050 is Greater Boston’s long-term land use and policy plan. It seeks to connect the Greater Boston of today to a more just, sustainable, equitable, and prosperous future. To do this, we need to understand the conditions on the ground for our residents, workers, businesses, and ecosystems, and the trajectories along which they are moving. Research conducted as part of the MetroCommon planning process can help us to see some of the patterns and idiosyncrasies of the region, and to imagine possibilities for its future.

We used the research developed as part of MetroCommon to understand our region more fully and to provide data and evidence answering key questions. The research findings supported the development of both the Action Areas and the plan’s public policy recommendations. We held public release events throughout the planning process to highlight the new insights and tools that have been developed.

This research encompasses both in-depth reports and webtools:

- ▶ **MetroCommon Reports:** Investigations, analyses, and essays that explore some of the most important realities of our region.
- ▶ **MetroCommon Webtools:** Interactive data and analysis that will help local officials, planners, advocates, and policy makers to navigate the complexities of our region and to make the on-the-ground change envisioned in the plan.

What is MetroCommon 2050 and how does research fit in?

MetroCommon 2050 is Greater Boston’s long-term plan. It’s about ways the Boston region can become more just, more equitable, more prosperous, and more sustainable. MetroCommon is built on goals – that is, what people have told us they want. It defines Action Areas that give today’s issues context, and that reveal systems that require intervention. **It goes deeply into key topics, finding insight in the trends, patterns, and idiosyncrasies of the region: in other words, research.** And it makes specific recommendations for policy changes that can help us to achieve our goals. The part of the plan you’re looking at now is the research section.

How did MAPC get input on the MetroCommon 2050 research?

Community engagement is a core practice at MAPC. So is the practice of confirming and challenging what we think we know. We “ground-truthed” every component of MetroCommon 2050 with people too often left out of planning processes to make sure the plan was worth implementing. The MetroCommon 2050 research was shared for feedback in the following ways:

- ▶ Research agenda **developed by MAPC staff in consultation with external partners**
- ▶ Research agenda **vetted by MetroCommon 2050 External Advisory Committee**
- ▶ Draft products were **shared with partners for feedback**
- ▶ **Public events** to launch reports and webtools widely publicized through all communication channels.

Read more about our MetroCommon 2050 community engagement [link].

Research Agenda

[Greater Boston’s Local Planning Priorities](#)

[Surging Seas, Rising Fiscal Stress: Exploring Municipal Fiscal Vulnerability to Climate Change](#)

[Climate Vulnerability in Greater Boston](#)

[Crowded in and Priced out: Why it’s so Hard to Find a Family-Sized Unit in Greater Boston](#)

[Zoning Atlas](#)

[Housing Submarket Typologies](#)

[Retrofitting Suburbia \(not yet released\)](#)

[Speculative Housing Investment \(not yet released\)](#)

[Perfect Fit Parking](#)

[First Miles: Examining 18 months of Dockless Bikeshare in Metro Boston](#)

[Research: The Diversity Deficit](#)

[Residential Displacement](#)

[Industrial Displacement \(not yet released\)](#)

[E-Commerce](#)

[Future of Work \(linked in Scenario Narrative – not yet released\)](#)

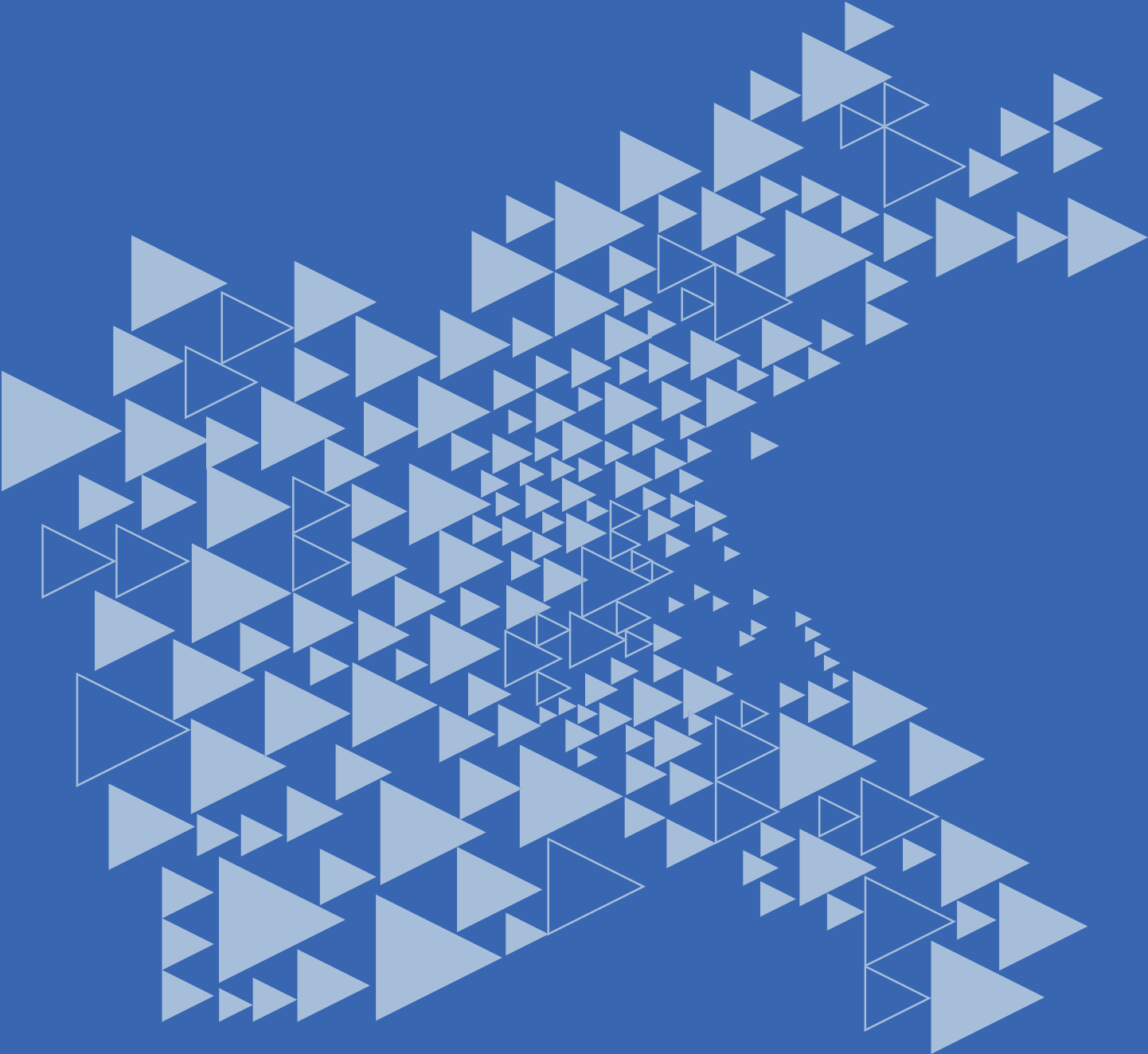
[Normative Modeling](#)

[Projections \(not yet released\)](#)

Links to other MAPC guidance

- [LandLine: Our Plan for a Connected Greenway Network](#)
- [Net Zero Playbook](#)
- [Get it Rolling: A brief guide to mobilize improvements in Greater Boston](#)
- [Arts & Planning Toolkit](#)

MetroCommon 2050 × Indicators
Program Plan



The MetroCommon 2050 Indicators program will highlight trends related to the MetroCommon 2050 goals in order to inform civic dialogue, planning priorities, and policy strategies as MAPC and our partners carry out implementing the plan. These indicators will highlight inequities and inefficiencies in the systems and conditions of the region and, if properly coordinated with policy design, can illustrate the effectiveness or ineffectiveness of a policy at achieving its goal. MAPC's Regional Indicators program developed to track MetroFuture, the regional plan MAPC published in 2008, has provided insight that has informed policy development and strategy over the last ten years.

For MetroCommon indicators, we will publish an initial set of indicators that covers at least one to three indicators for each of the ten MetroCommon goals, for a total of not more than 20 indicators. With so few indicators, we will present a set of indicators that provide valuable insight into subgoals of each goal, with the caveat that certain goals may be limited by a lack of readily available and regularly updated data.

We will present the indicators via a website that is connected on the backend to our DataCommon infrastructure and will automatically update trends as we update data in our database. The website will be designed and programmed such that it is easy to add in or swap out indicators, so that we can continue to maintain and build out more indicators with time. The indicators website will approach narrative discussion according to the following:

- ▶ Narrative will be concise so that the focus remains on the data trends. Discussion of trends for each indicator will serve as more of an annotation than a report.
- ▶ Discussion will focus on long-term trends.
- ▶ If possible from a technological perspective, discussion of recent trends will be short and automated such that the direction of the most recently available trend is automatically populated with the direction of the trend. For example, "in the most recent data available, the trend is [x]," where [x] is updated automatically with each update of the data.
- ▶ Data Services staff will review the narrative on an annual basis to ensure the automation is not broken and that the long-term trend discussion is still relevant, but will not do wholesale rewriting of the narrative regularly.

Selection of Indicators

Using Regional Indicators as a starting point, Data Services will curate an initial list of indicators that speak to MetroCommon’s goals. With time, we will consult with a team of internal and external topical advisors to help us prioritize the most compelling and informative indicators to continue to build out our portfolio.

To begin the curation process, Data Services will answer the following questions as a guide:

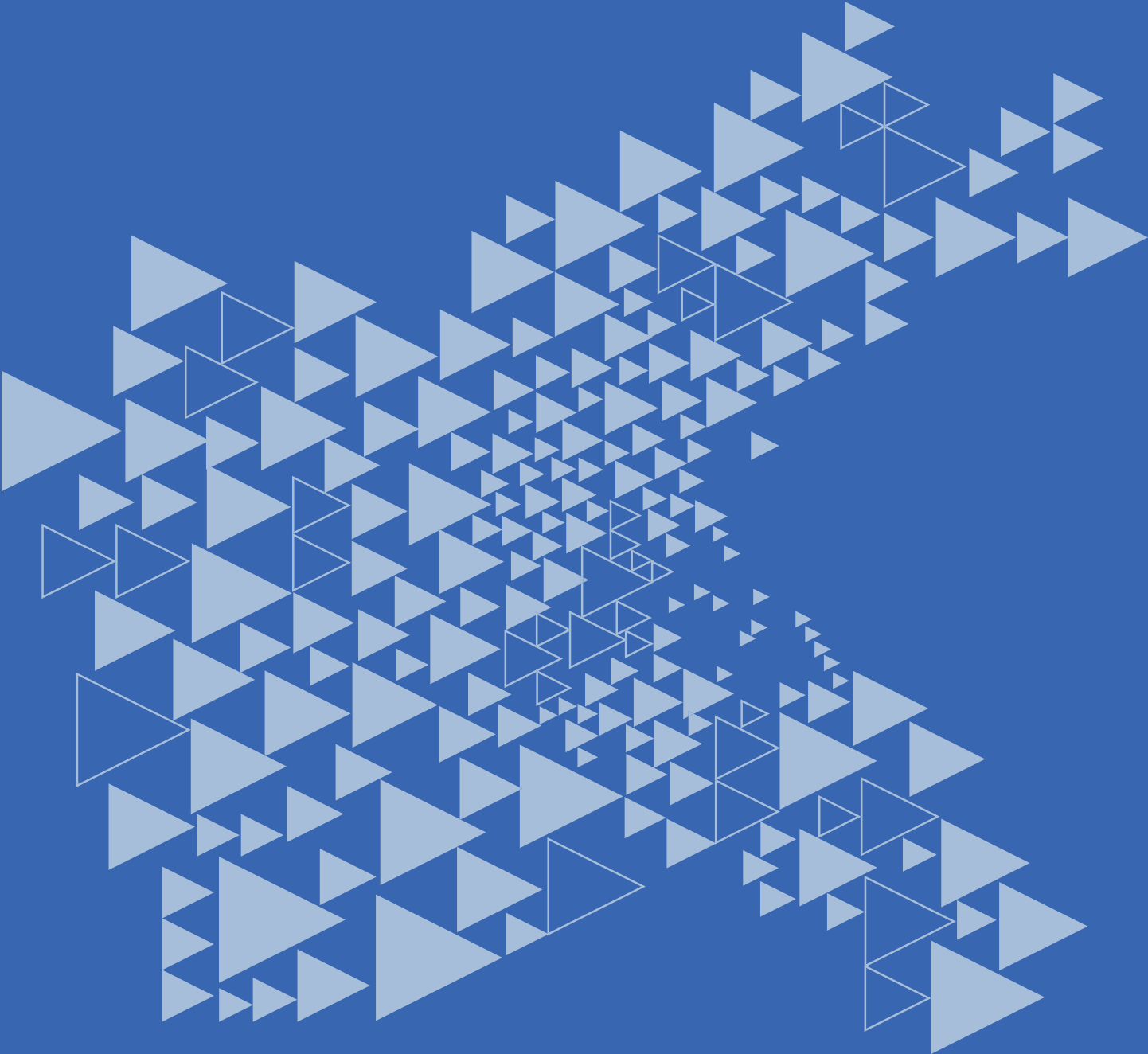
- ▶ Is the data source readily available and regularly updated?
 - Does the indicator show trends core to an element of a MetroCommon goal (even if it doesn’t explain every element of the goal)?
 - Can the indicator be expected to change noticeably over a reasonable period of time?
- ▶ Does the indicator speak to a core element of MAPC’s work? Does it reflect a regional system that we intend to change through our work?
- ▶ Is the indicator aligned with MAPC’s policy work? Or can it inform the direction of our policy work?
 - Is the indicator easy to concisely explain to a lay audience?
- ▶ Are the datasets necessary to calculate the indicator part of Data Services data infrastructure (i.e. in the central database)?
- ▶ If the datasets are not part of the infrastructure, do they meet the above requirements and might it be worth adding them into the infrastructure?

Once we’ve answered all of these questions, we’ll need to narrow further with input from internal topical advisors. These conversations will include a small amount of opening – are there any critical topics missing – but will focus primarily on narrowing to only those most critical indicators for the initial release, keeping in mind that we hope to be able to build out the indicators slowly with time.

Updates and Maintenance

MAPC will produce regular updates of the data and will have the flexibility to add new indicators to the platform each year. On an annual basis, MAPC will review existing indicators on the website to be sure they and their narrative descriptions are relevant. Each year we will also add one to five new indicators or minor website features based on input from internal and external stakeholders. Every five years, MAPC will do a more comprehensive review and update of the indicators and narrative to identify and report important emerging trends.

MetroCommon 2050 × Finance in Greater Boston
The State of Local and Regional Government



Dynamic and Representative Government

Empowering local and regional governments to meet demographic and fiscal challenges by becoming more dynamic, inclusive, democratic, and collaborative, across borders and with partners in other sectors. This challenge will involve municipal finance, political systems, civic technology, regionalization, and municipal workforce.

III. Expand and improve the way we finance local and regional government

Executive summary

Government finances form the foundation on which public policy goals are constructed. In the case of Greater Boston’s municipalities, the good news is that that foundation has remained mostly solid in the recent past, especially when compared with some of the more severe financial challenges that have hit municipalities in other parts of the country during the pandemic. The bad news is that the foundation is showing some potentially significant cracks from past and current policy decisions, and constructing new policy goals upon it without significant improvements is not going to be feasible.

This assessment reviews the sufficiency, stability, and equity of the current system of municipal finance and considers the current and future impacts of long-standing (e.g., Proposition 2 ½), new (e.g., the covid-19 pandemic), and impending (e.g., significant climate threats) circumstances on the fiscal health of the 101 municipalities in the MAPC region. (The financial status of two critical public entities that provide services regionally, MBTA and MWRA, are considered briefly on page 18.)

The revenue that provides the financial foundation of municipalities in Greater Boston comes from three main sources: property tax, state aid, and local receipts. Although the particular mix of these three revenue sources (and of the components within them) varies significantly between municipalities in the region, it is possible to make a few generalizations. (Of course, the pandemic has also led to the American Rescue Plan (ARP) Act that is providing substantial funds for municipalities to spend over the next few years, but this is a one-time revenue source that should not be considered part of the long-term picture.)

The property tax forms the largest piece of the fiscal foundation for most municipalities in Greater Boston. Its strengths as a revenue source are stability and predictability, which make it useful as part of the foundation of the region’s financial picture. At the same time, it has significant weaknesses, including inflexibility within the current Massachusetts legal framework, some regressivity, and potentially its reinforcement of systemic racism. Moreover, over the last several decades, MAPC municipalities have become increasingly reliant on property taxes, which could be seen to be reinforcing inequality and which seems to indicate future sufficiency challenges.

After the property tax, state aid is the second largest revenue source for the region as a whole. Its primary strength is that it is (in the current Massachusetts framework) more progressive. Its main weakness is that it is a less stable and predictable revenue source. When combined with a regressive property tax as the two main revenue sources, state aid helps to offset some inequality within the region, but at a cost of stability. During economic downturns that impact state aid, cuts may have the largest impact on the most economically-disadvantaged municipalities, and any swings in state aid will have a greater impact on revenue stability and predictability in those municipalities.

The third largest category of revenues is local receipts, which includes motor vehicle excise taxes and a variety of fee-based revenues. Local receipts allow municipalities to diversify their revenue sources a bit and offer some degree of local control, but they can also be significantly less stable and predictable during times of economic uncertainty.

Taking the three main revenue sources together, the first (the property tax) provides stability generally, but property wealth is not distributed equally between municipalities, and the second (state aid) mitigates some of that wealth inequality but introduces instability (particularly in those municipalities with lower income populations). Neither provides much local flexibility. The third source (local receipts) adds a bit more local flexibility and revenue diversification, but it can be sensitive to economic conditions, introducing instability

Fixed cost: A cost that largely does not vary in relation to service levels. Thus, a municipality would have limited if any control over such a cost. For example, debt service on a school building must be paid regardless of whether the school is at 60% or 95% student capacity.

Step cost (sometimes also stepped cost): A cost that changes only after a certain threshold is met (i.e., the growth follows a stair step pattern). For example, if three kindergarten students are added to a school district, there are no additional costs in terms of physical space or a teacher. However, if twenty kindergarten students are added, the district will need a new classroom and to hire a teacher.

Unfunded liability: The difference between estimated future costs and the assets that have been set aside to pay for those benefits.

Using varying combinations of these three revenue streams, the region's municipalities must support a huge array of local services, some mandatory (e.g., public education) and some discretionary but fundamental to residents' well-being (e.g., parks and recreation), as well as a large and growing number of indirect fixed costs, step costs, and unfunded liabilities. (Many of these indirect costs consistently increase at rates above what municipalities can generate from the revenue streams they control, meaning they will continue take up greater portions of annual budgets.)

Given the current set of mandatory and expected services, fixed and step costs, and unfunded liabilities, there is a strong case to be made that current revenues

are insufficient to meet the region’s needs. And given the rates of growth in many cost categories (e.g., capital costs to repair or replace essential infrastructure such as roads and bridges, health insurance costs, unfunded pension and other post-employment benefits or “OPEB” liabilities, etc.), as well as the new policy challenges facing municipalities (e.g., capital costs to respond to climate change, finding ways to proactively address issues of social and economic justice, etc.), there is an even stronger case to be made that future revenues will not be able to match future needs without significant changes.

Other than the new policy challenges being recognized, little of this picture is new. Reports going back the last several decades have pointed to similar challenges. Since that time, municipal and state officials have been creative in patching together solutions for these problems. When that hasn’t been possible, they have at times found ways to push some of the problems further down the road but in a few cases they have been forced to drastically cut services (such as during the Great Recession). There are limits to both the creativity and the pushing, and it would be best to find more systemic fixes now, before the challenge get significantly worse.

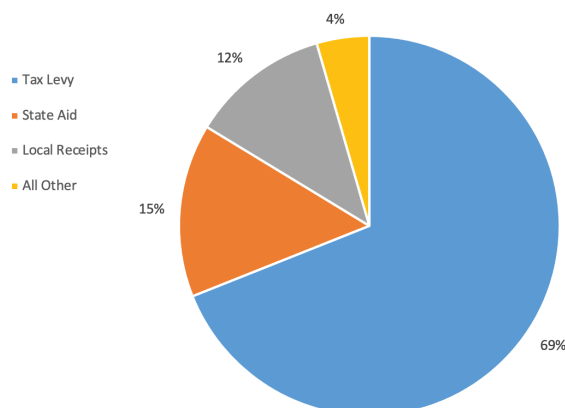
The general state of municipal finance

Understanding the current state and potential future of municipal finance is critical to understanding the region’s ability to deliver essential public services, both today and in the future. Few if any of MAPC’s MetroCommon 2050 goals can be successfully implemented without proper resources for the municipalities and regional public entities. The finances form the foundation on which the policy goals are constructed. This chapter focuses on municipal finance, although two key regional entities that provide public services are addressed briefly on page 18.

Overview of primary municipal revenue streams

Generally speaking, the 101 cities and towns in the MAPC region rely on several major revenue sources, including property tax, aid from the State, and local receipts. There are other, less significant revenue sources as well, including funds from the Federal government, bond premiums, etc. In some cases, certain operations generate their own revenue, which is typically kept separate in its own fund (called an Enterprise Fund) in order to pay for those specific services (for example water, sewer, or trash/recycling services). The chart below shows the source of all FY2020 municipal revenue in the MAPC region.

FY2020 Revenue by Source for all MAPC Municipalities



Note: The chart above does not include Enterprise Fund or Community Preservation Act revenues.

Municipalities face significantly different revenue pictures

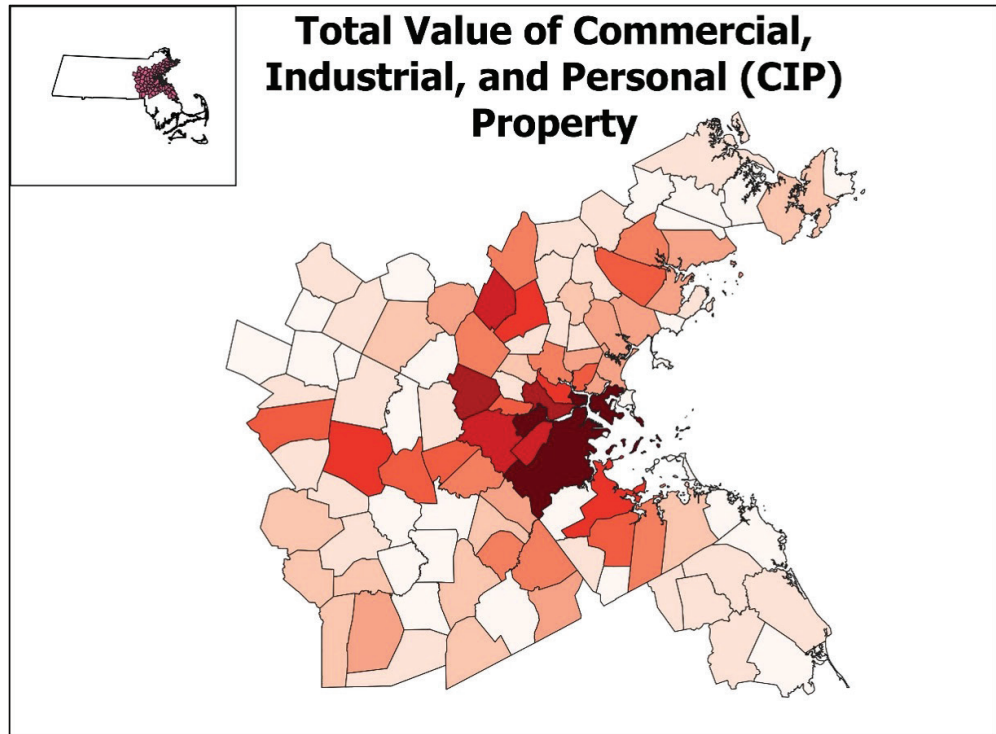
Not surprisingly, there is significant diversity among the 101 municipalities in terms of their revenue picture. Property tax revenue is typically (although not always) the most significant source of revenue for a municipality. In FY2020, all but six of the 101 cities and towns in the region raised the majority of their revenue from the property tax, and for approximately one-third, the property tax represented more than 70% of all revenue. Over the last several decades, MAPC municipalities have become increasingly reliant on property taxes. Between FY2003 and FY2020, the median level of reliance on the property tax grew from 65% of total revenue to nearly 74%. This fact has both public policy implications (e.g., around housing development and economic growth) and political implications, and it raises important questions about whether this pattern will be sustainable as municipalities face significant future costs.

About Proposition 2½

In Massachusetts, the property tax system is structured according to Proposition 2½, the law that since the early 1980s has limited property tax growth in two important ways. One, growth in the tax levy (i.e., the total raised) is limited to 2.5% each year, plus an allowance for new growth. This is called the “levy limit.” New growth is new development in the municipality or changes to properties that result in higher assessed value; it does not include increased value due to revaluation. New growth is heavily influenced by economic factors. The second overarching constraint of Proposition 2½ limits the total tax levy to no more than 2.5% of the municipality’s total assessed valuation. This limit is referred to as the “levy ceiling.”

Even as most municipalities are heavily-reliant on the property tax, there are important differences in the makeup of property tax revenue itself. Many municipalities rely nearly completely on residential property taxes, while others have significant commercial, industrial, and personal (commonly referred to as CIP) property tax revenue. The average split in FY2020 between residential and CIP tax levy is 80/20, but this belies a significant range. On the high end, one municipality receives more than 98% of property tax revenue from residential properties, whereas on the low end another receives only 34% of property tax revenue from residential properties. This situation has been consistent for at least the past 15 years. The map below shows how CIP property value is not distributed evenly across the region, but rather is heavily concentrated. While some of this concentration results from local preferences¹, some of it is outside local control due to infrastructure challenges (e.g., the need for prohibitively expensive sewer systems) or due to historical or geographical constraints (e.g., the location would not be attractive for commercial or industrial uses because of the lack of access/proximity to major transportation routes). This variability has created a situation wherein municipalities are vulnerable in different ways to revenue disruption and unsustainability.

¹ Through zoning bylaws, local ordinances, and/or policy decisions, some municipalities may by choice create a situation where commercial development is essentially disallowed or at least discouraged.



Two other key sources of revenue are state aid and local receipts. State aid includes multiple categories, but the two most significant ones are Chapter 70 Aid for Education, which is typically the majority of state aid, and Unrestricted General Government Aid (or UGGA). Municipalities in the MAPC region rely on state aid to a widely varying degree. Some are heavily-dependent upon Chapter 70 funding, whereas for others, total state aid is relatively insignificant. Local receipts can also come from a variety of sources, such as room and meals tax, fines, and permit and license fees, but typically the most significant local receipt is motor vehicle excise tax revenue.

Potential pandemic impacts on municipal revenues

Moreover, at the time of this writing, the COVID19 pandemic had stressed the municipal finance system in Massachusetts in late FY2019 and throughout FY2020, highlighting both strengths and weaknesses. For example, the property tax has proven to be a stable source of revenue during FY2020 and FY2021, although it is possible that in FY2022 commercial property values could fall, impacting those municipalities that are heavily-reliant on CIP revenue.

On the other hand, those municipalities that are heavily-reliant on state aid were unable to craft a balanced budget until the State sorted out its own budget and released state aid projections (which happened very late and well into the fiscal year). While the dire cuts to state aid that some predicted early in the pandemic did not come to fruition, many realized that some municipalities are so dependent upon state aid that such cuts would have resulted in devastating service impacts.

As predicted, many local receipts did fall during the shutdowns, but municipalities appear to have largely been able to absorb this impact at least for FY2020 and FY2021. Additionally, the American Rescue Plan (ARP) Act stimulus is providing

substantial funds for municipalities to spend over the next few years. This one-time revenue source should not be considered part of the long-term picture and funds not used to respond to the immediate crisis will ideally be used by municipalities for capital expenditures and other one-time costs, as opposed to being factored into annual operating budgets.

Taken all together, at the time of this writing, it is too early to say whether the pandemic will have continuing long-term impacts on municipal finance and, if so, how significant those impacts will be.

Overview of municipal expenditures

On the expenditures side of the ledger, municipalities overall provide essential services to residents and businesses, many of which are mandatory. All told, MAPC municipalities expended more than \$13 billion in FY2019 through their General Funds to provide these services. For most municipalities, public education expenses are the most significant category of spending, and a significant portion of that spending is not discretionary. The majority of MAPC municipalities operate their own public school district, but a handful are part of regional districts. Other essential services include police, fire, ambulance, public works, inspectional services, human services, and recreational services.

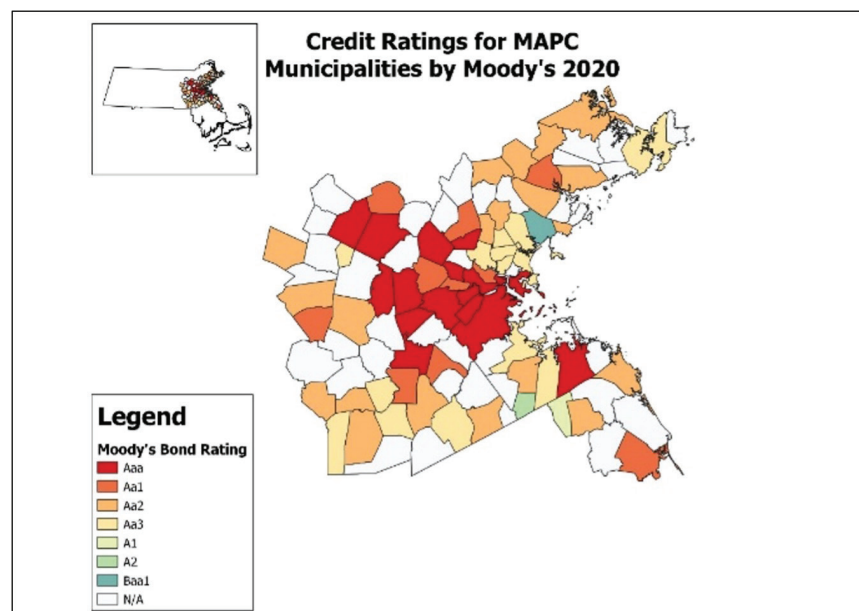
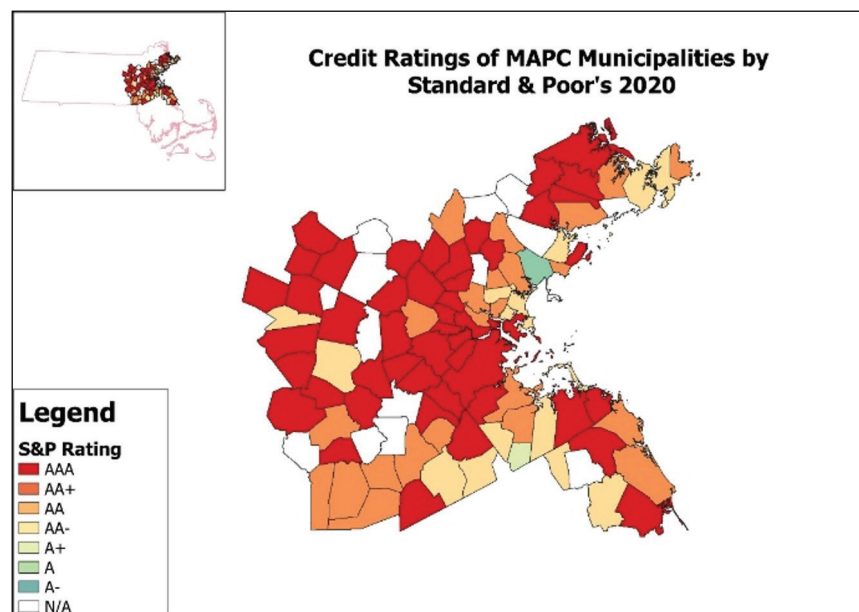
There are other costs borne by municipalities to provide these services beyond the direct expenses. Some of these are significant expenses, including funding healthcare for employees, pension and OPEB obligations for retirees, debt service, and necessary one-time capital projects. Some of these costs are fixed or step costs, such as debt service, pension contributions, and health insurance. That means that once a decision has been made (e.g., to create a fixed cost by incurring debt, or to create a step cost by offering health insurance to an employee), the municipality is obligated to pay the cost or has significantly limited flexibility in making changes to that cost. It is locked into the budget. To get a sense of these fixed costs, of the \$13 billion expended in FY2019, 14% or \$1.9 billion was for fixed costs. In addition, the region had outstanding debt totaling approximately \$7.9 billion in FY2019. Annual pension contributions and OPEB costs were not readily available for the entire region, but they are significant. State law requires municipalities to fully-fund their pension liabilities (but not OPEB) by a certain date, so this is another annual cost that they have no choice but to pay. In the aggregate, the MAPC municipalities carried nearly \$6.6 billion in unfunded pension liabilities in 2017/2018.

Additionally, in many cases, fixed costs rise faster than the increase in the property tax allowed by Proposition 2½. Health insurance, in particular, is costly one which is discussed in more detail in a later section of this review. Every time that a fixed cost increases above 2.5% plus new growth, (i.e., the increased value of new development and other growth in the tax base that is not the result of revaluation), it essentially crowds out funding for existing services and functions. In Massachusetts, municipalities are required by law to have a balanced budget, and so annually there is pressure to control costs such that essential services can be continuously provided within the confines of Proposition 2½. Municipalities are mostly able to achieve this, although it often requires trade-offs. However, in times of significant fiscal stress, such as during the Great Recession, there were cutbacks

to services that directly impacted residents, such as library closures. It remains to be seen whether the pandemic will cause similar issues and how widespread such impacts may be in the MAPC region.

Overall financial condition of municipalities

Overall, despite the pandemic, most MAPC municipalities are generally considered to be handling the short-term fiscal challenges reasonably well. Although many face future challenges that will be discussed later in this chapter, only a few face significant issues right now. Bond ratings, although widely acknowledged as an imperfect measure, provide some demonstration that many municipalities can be considered in strong or moderately strong shape in the near term.² The maps below show each municipalities bond ratings from two major credit ratings agencies, Moody's and Standard & Poor's. The vast majority of municipalities enjoy an AAA/Aaa or AA/Aa rating from one or both agencies. (AAA/Aaa and AA/Aa are the highest and second highest possible ratings, respectively.)



² The decision to use bond ratings as a proxy for financial strength was not an easy one, because the project team recognizes that they have significant flaws. As the 2009 financial crisis showed, their predictive value has its limitations. Moreover, as some have argued, their strongest correlations are with existing wealth and/or race. It is clear that they are part of a larger structure that perpetuates inequality and systemic racism. Over the long term, better external measures of financial strength would be of great use. In the meantime, as a simple marker for the current financial condition of Massachusetts municipalities, they remain as one of few externally-generated measures that are currently used universally.

And yet, even prior to the onset of the pandemic, some municipalities that appeared to be in decent financial shape based on their bond ratings were facing structural financial challenges, including overreliance on residential property taxes, insufficient funds to complete all capital needs, pressure to fund education costs at the expense of general government services, rising fixed costs, and looming pension and OPEB obligations, to name a few. Although municipal officials have found ways to work around these challenges from year to year, they will have to be addressed in the long-term to ensure continuing financial health of the region.

As with past disruptions, such as the Great Recession and the dotcom bubble of the early 2000s, the immediate and short-term financial challenges brought on by the pandemic shine a spotlight on these strengths and weaknesses of the region's system of municipal finance.

Local government as an important component of the regional economy

Beyond the importance of municipal and regional finance to the provision of critical services in Greater Boston, municipal governments and regional entities are also important in and of themselves as major economic drivers in the region. Local government (including schools) within the MAPC region is a \$14 billion industry, which is approximately 3% of the region's GDP. Local government (including schools) employs close to 177,000 people in the MAPC region, which is about 10% of the region's workforce.

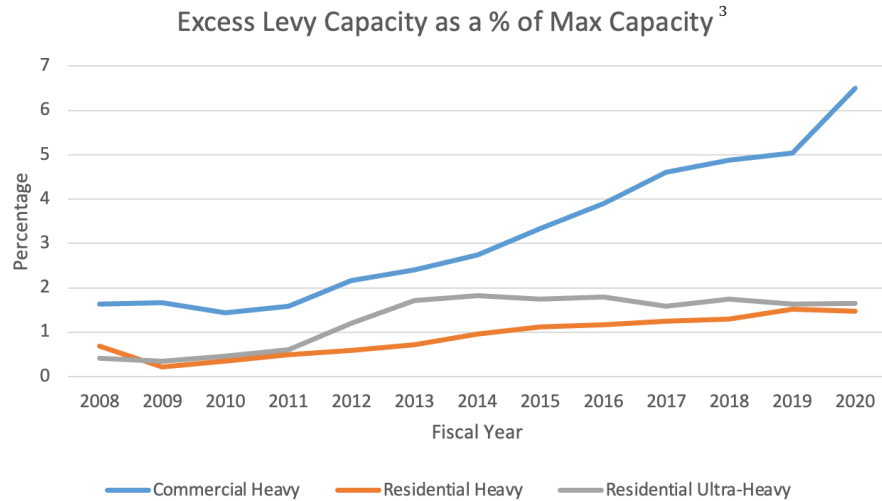
Municipal revenue is likely insufficient to fully meet existing and future needs

Although the services provided by municipal governments are to a certain extent based on the levels of service desired by residents, municipalities also have certain service responsibilities that are mandatory and financial obligations that must be met. There is some indication that the limitations of Proposition 2½ on property tax revenues, coupled with state aid support that has not kept pace with inflation and a limited ability to raise other revenues, have rendered revenues insufficient for cities and towns in the MAPC region. There is even stronger evidence that revenues will become increasingly insufficient over time, absent any changes.

How much of their taxing capacity do municipalities use?

One potential measure of current sufficiency is whether municipalities have excess levy capacity or whether they "tax to the max." When looking at excess levy capacity as a percentage of maximum levy capacity, there are clear disparities among municipalities in the MAPC region. As the chart below shows, commercial-heavy municipalities had average excess levy capacity of 6.49% in FY2020. In sharp contrast, residential-heavy and residential ultra-heavy municipalities had excess capacity of 1.46% and 1.64% respectively. Commercial heavy municipalities include those that derived at least 25% of total levy from commercial properties in FY20. Residential heavy municipalities derived more than 75% but less than 90% from residential properties that year, whereas residential ultra-heavy municipalities derived more than 90% of tax levy from residential properties.

Boston and Cambridge are outliers in the region, because of their size and budgets in excess of \$600 million, but they are both extremely commercial heavy, deriving approximately 60% and 65% of tax levy from commercial properties. Interestingly, Boston had excess capacity of 0.01% while Cambridge maintained excess capacity of 30.29% in FY2020. Excess levy capacity not only indicates in part whether municipalities have sufficient resources in the present, but also whether they have the ability to raise new own-source revenues in the future if necessary.



Proposition 2 ½ overrides

Analysis of Proposition 2 ½ override votes provides additional insight into the question of whether financial resources are sufficient. However, both the decision to seek an override and the success or failure of passage are impacted by numerous political and other factors. Any analysis must be understood in this context.

Overrides & Underrides

Proposition 2 ½ permits municipalities to seek overrides and underrides. An override is a vote by a community to permanently increase the levy limit to no higher than the levy ceiling. Conversely, an underride is a vote to permanently decrease the levy limit.

Since FY2000, there have been 404 override votes in MAPC municipalities, although the frequency of such votes peaked in 2006 and dropped sharply after 2010. Slightly more than half of these votes were to raise revenue for general operating expenses and an additional 30% were specifically for education. The rest were for various specific categories of municipal service, such as public safety or public works, as the table below shows.

³ Excludes Boston and Cambridge

History of Overrides and Success Rates Since FY2000					
Reason Given for Override	Loss	Win	Grand Total	Success Rate	As % of Total Overrides
Culture and Recreation	9	16	25	64.0%	6.2%
General Government	22	24	46	52.2%	11.4%
General Operating	52	108	160	67.5%	39.6%
Health and Human Service		3	3	100.0%	0.7%
Public Safety	5	17	22	77.3%	5.4%
Public Works & Facilities	10	10	20	50.0%	5.0%
School	32	96	128	75.0%	31.7%
Total	130	274	404	67.8%	100%

About every 2 out of 3 override votes were successful, although municipalities with a more significant commercial property base were less likely than those with a heavier residential property presence to be successful. Commercial heavy municipalities successfully passed 42.1% of override votes, residential heavy municipalities passed 57.8%, and residential ultra-heavy municipalities passed 76.6%. Override votes were most common in these extremely residential municipalities. Although they represent 35.6% of all MAPC municipalities, they were 57.2% of all override votes. Conversely, commercial heavy municipalities were 25.7% of all MAPC but only 4.7% of total override votes. Thus, it appears that overrides may indicate not only a need for more resources, but also importantly, the self-identified capacity for more tax levy revenue from the taxpayers.

During the same time period, there were also four underride votes in two communities (three votes taken in Hopkinton and one vote taken in Rockport). Underrides were slightly more common outside of the MAPC region than within it, with 6.4% of non-MAPC municipalities seeking underrides while only about 2% of those within the region did so. Overall, however, underrides are an uncommon occurrence, providing some indication that at the very least, resources are not so abundant that underrides are commonly sought.

As the analyses above show, many municipalities appear to bumping up at the limits of what they can raise in tax levy under Proposition 2 ½ - and in some cases seeking taxpayer permission to exceed those limits. Although it does appear that municipalities with substantial commercial property do have sufficient property tax revenues, since they have substantially more unused taxing capacities than other cities and towns in the region.

The challenge of fixed and step costs

Municipalities face significant future costs that will almost certainly exceed the available financial resources. The most substantial issues are the continuing rise of fixed or step costs, the need for physical infrastructure and other capital investments, and unfunded liabilities for pension and OPEB.

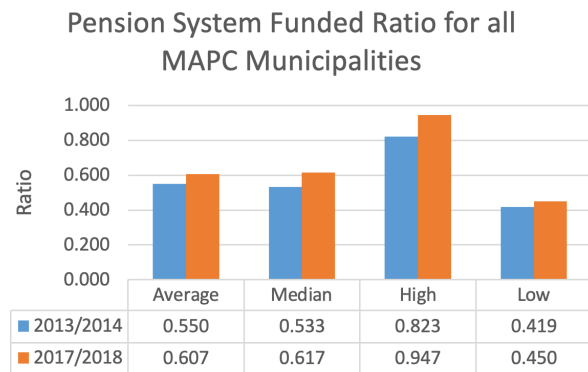
The growth of certain fixed costs (e.g., healthcare) consistently exceeds increases in property tax revenue and state aid, and will thus continue to crowd out spending on services, all other things being equal. In FY2014, fixed and step costs

represented 12.8% of total expenditures for MAPC municipalities. By FY2019, this had increased to 14.2%. Clearly, this is a significant component of the budget, over which municipal managers and finance officials have little control.

Healthcare costs are a significant portion of municipal budgets, and costs have been rising precipitously. After inflation, these costs rose 22% for MAPC municipalities from FY2010 to FY2020.⁴ However, this average belies significant variability (and volatility) when it comes to these costs. Some municipalities saw increases as high as 150% after inflation, while others saw decreases up to 70% during the same time period. (This latter is likely due to joining the GIC for the provision of health insurance.) Changes could be due to many factors, including the number and health of employees, level of benefits offered, the variety of plans offered, and reforms undertaken. Regardless, healthcare costs are one area where municipalities have faced financial uncertainty and increasing budgetary pressure, and yet there are limits on the tools each individual municipality has to address these concerns.

Unfunded pension and OPEB liabilities

It is widely recognized that outstanding pension and OPEB liabilities constitute a financial crisis for local governments across the United States. In the MAPC region, municipalities have to varying degrees funded their pension obligations. The chart at right shows that the average funded ratio for all MAPC municipalities rose in 2013/2014 from 55% to almost 61%. This progress has been aided by a State law that requires full funding by a certain date. However, the immediate impact of this progress has been budgetary challenge in absorbing the pension fund contributions on an annual basis.



OPEB liabilities are a greater challenge, because Massachusetts municipalities, broadly speaking, have not yet turned their attention fully to this problem. While there are State requirements for pension funding, there is no such law related to OPEB liabilities. Municipalities are able to establish an OPEB Trust Fund, and some have done so. However, data around liabilities and funding levels are not readily available statewide. It is likely that OPEB liabilities will continue to be a financial challenge that will one day have to be addressed. Because OPEB costs are largely retiree healthcare costs, it is reasonable to assume that as science and medicine advance these costs will grow ever more substantial as subsequent generations retire, unless there are State and/or Federal-level systemic reforms in the healthcare system in the United States.

⁴ Note that this excludes Cambridge, whose data was unavailable for the latter years of the timeframe.

The particular challenge of current and future capital needs

It is not possible to quantify the overall capital needs of the region because municipalities do not always have capital improvement plans and those that have them do not use a consistent method for assessing and quantifying capital needs. However, generally it is clear that the capital needs of municipalities outstrip the ability and willingness of the taxpayers to pay for them all. Pressures from State and Federal regulations (e.g., related to drinking water quality and the treatment of storm water), the cost of real property and construction, and the impacts of climate change, among other things, have significantly increased the current and long-term capital needs and the associated cost for municipalities. Looking to the future, it is clear that without significant new revenue streams, municipalities will continue to struggle to fund capital needs. However, the one-time substantial infusion of funds some municipalities are receiving from the ARP stimulus may help them make a dent in their outstanding capital needs.

One area of capital need of increasing concern is the potential cost to make municipal infrastructure and environments resilient to climate change. Although it is difficult to quantify the costs, it is clear that the coming decades will see increasingly extreme weather events, including increases in flooding and storm damage. One study of state and local infrastructure along the Massachusetts coast estimated that the maintenance and repair costs of coastal infrastructure will be in the tens of millions of dollars per year for the next several decades. While this study includes all coastal areas of the Commonwealth, including those beyond the MAPC region, it does not include inland communities. These communities face their own challenges with riverine flooding, winter storms, and other severe weather events. Regardless of the specific numbers, climate change will require significant increased capital spending by municipal and regional entities.⁵

⁵ Unfortunately, just as climate change is going to increase capital spending needs, it is also expected to impact municipal revenues over the long term. In the more severe sea level rise scenarios, hundreds of millions of dollars in property tax revenue would be threatened by damage to or loss of properties in low-lying areas.

Key Regional Entities – MBTA and MWRA

There are several important regional governmental entities that provide essential services to residents and businesses in the MAPC region such as water, sewer, and transportation. The financial strength of these entities is salient to the understanding of municipal fiscal health, since they are all part of the same service system. Two key entities highlighted here are the **Massachusetts Water Resources Authority** (MWRA) and the **Massachusetts Bay Transportation Authority** (MBTA).

The MWRA provides water and/or sewer services to 61 municipalities and public districts in the Commonwealth, including 51 of the 101 MAPC cities and towns. These are essential services that municipalities would themselves likely provide in the absence of the regional authority. MWRA has strong and stable revenue through the assessments it levies upon its member communities to fund its operations and capital needs. It is important to note that the ratepayers are the same taxpayers that municipalities raise revenue from, so both water/sewer rates and taxes need to be taken into consideration when looking at total financial burden on residents.

The MBTA, a department within the Massachusetts Department of Transportation, operates much of the public transportation system in Greater Boston, including bus, subway, commuter rail, and ferry systems, as well as providing paratransit services. The MBTA operates within the geographic boundaries of many MAPC municipalities, serving residents of the entire region. Public transit is a key service for residents and a driver of residential and commercial development decisions. The MBTA not only has a direct impact on municipal budgets, since they are assessed a portion of costs but also a significant indirect relationship through public transit's impact on property values, commercial investment decisions, and the overall desirability of the municipality.

Thus, the MBTA's long-standing fiscal challenges are a key concern for municipalities within its service region. Although it has been the subject of some debate, MBTA has long claimed to have a structural budget deficit and has been reliant on annual legislative appropriations to supplement fare and other own-source revenue, which is common among peer systems in the United States. The pandemic has exacerbated this challenge with its immediate and significant negative impact on ridership and revenue. State officials project that ridership may not recover for many years, and it remains to be seen how the pandemic may permanently alter work and commuting patterns.

The financial condition of these key regional entities can also have impacts on inequality in the region. Given that many low-income individuals depend on public transportation to get to work and to make other necessary trips, the MBTA's ongoing financial troubles, and the service cuts and fare increases, can exacerbate inequality by making it more expensive and slower for lower-income workers to get to jobs. Access to clean drinking water and wastewater services are essential services and rate affordability is an equity concern.

The property tax is predictable and stable, but state aid and other revenues are less so

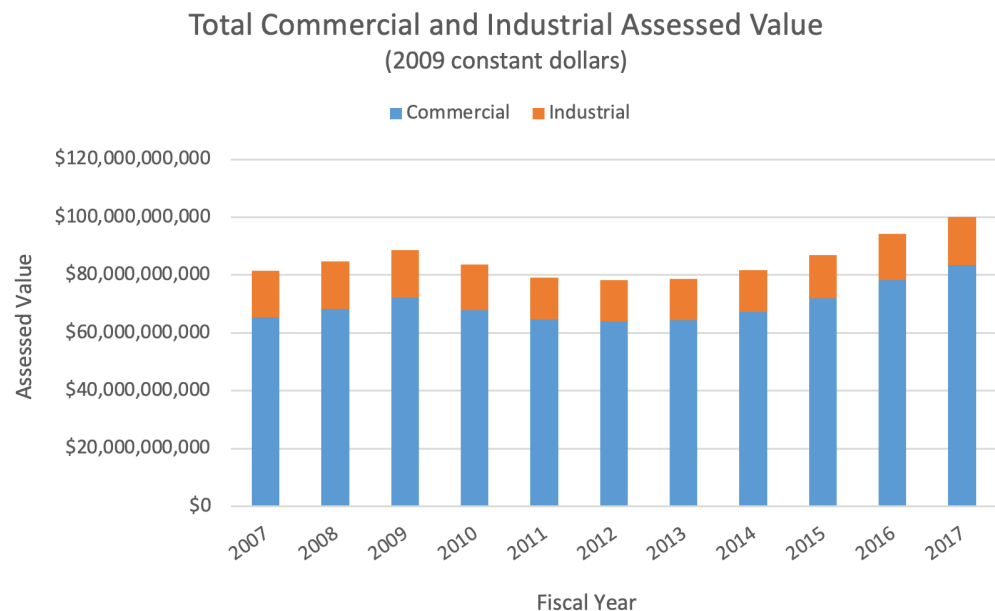
The property tax provides stability

The property tax, which is typically (but not always) a municipality's most significant source of revenue, is very predictable and stable. Even in periods of economic recession, the property tax has largely proven to be a steady revenue source. This trend has been borne out thus far during the pandemic. The main reason for this stability is the statutory framework that allows municipalities to collect this tax. This stands in stark contrast to other parts of the country, where municipalities which rely heavily on local sales or income taxes have faced catastrophic revenue loss during the pandemic.

Exceptions to the property tax's stability

There are a few cases where the property tax's overall stability masks particular problems. First, there have been some historical cases where economic recession has caused municipalities to "hit" their levy ceilings, a constraint of Proposition 2 ½. In essence, this means that the municipality cannot raise its annual levy limit the full 2.5% or add amounts generated by new growth because this will bring its levy limit above the levy ceiling. In a municipality that taxes to its levy limit, this would mean that the budget would be stagnant from year-to-year until the levy ceiling rises. Although this is a rare circumstance (to date), it has occurred outside of the MAPC region and is a concern with Proposition 2 ½.

The second challenge, perhaps more relevant in the MAPC region, relates to the reliance on commercial, industrial, and personal (CIP) property tax revenue, which is more sensitive to economic conditions because of the way in which commercial property can be assessed (i.e., based on income). As the chart below shows, the Great Recession triggered a drop in assessed values of commercial and industrial property. Values peaked in FY2009 at a combined \$88.5 billion. After adjusting for inflation, commercial property value did not recover to FY2009 levels till seven years later in FY2016 while industrial property recovered in FY2017.

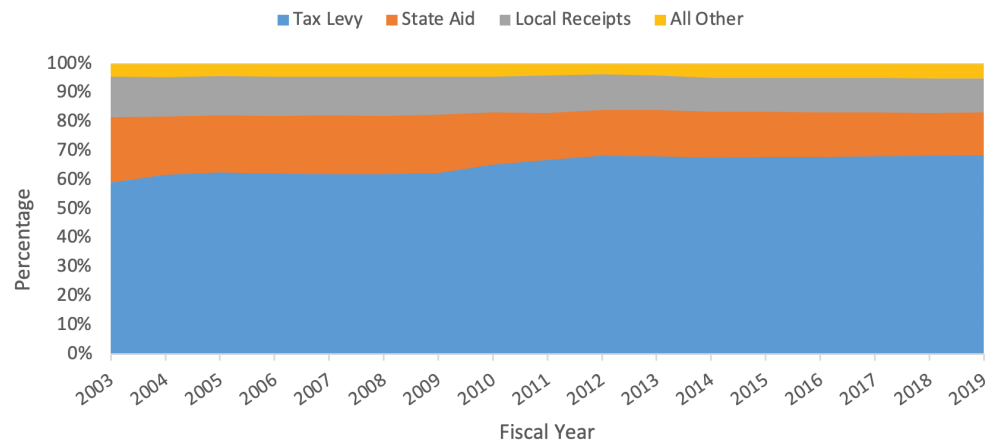


Currently, there are concerns about the pandemic’s potential impact on commercial property assessments across the Commonwealth. If these assessments fall significantly, then property taxes to be raised from these properties could also fall, shifting the tax burden from commercial/industrial to residential properties because of the rules of Proposition 2 ½. In some cases, this may be financially and/or politically untenable, and municipalities may choose to split the tax rate (i.e., charging a higher CIP rate to make up the difference caused by the drop in values) or significantly cut budgets rather than overburden the residential class, both of which are challenging situations in their own right.

State aid is less stable than the property tax

In contrast to the property tax, state aid is entirely outside local control and is a much less stable and predictable revenue source. Although the median reliance on state aid is 10% of total revenue⁶ for all MAPC municipalities, 17 of them received more than 20% of their FY2020 revenues through state aid. Most reliant on state aid are less well-resourced cities including Lynn, Chelsea, Revere, Everett, and Malden, for which the average level of reliance is more than 40%. On average, state aid as a share of total revenue⁷ for all MAPC municipalities has fallen from 22.6% in FY2003 to 14.6% in 2019. The chart below shows this decline as well as the concurrent increase in reliance on the property tax.

Composition of Municipal Revenue for all MAPC Municipalities

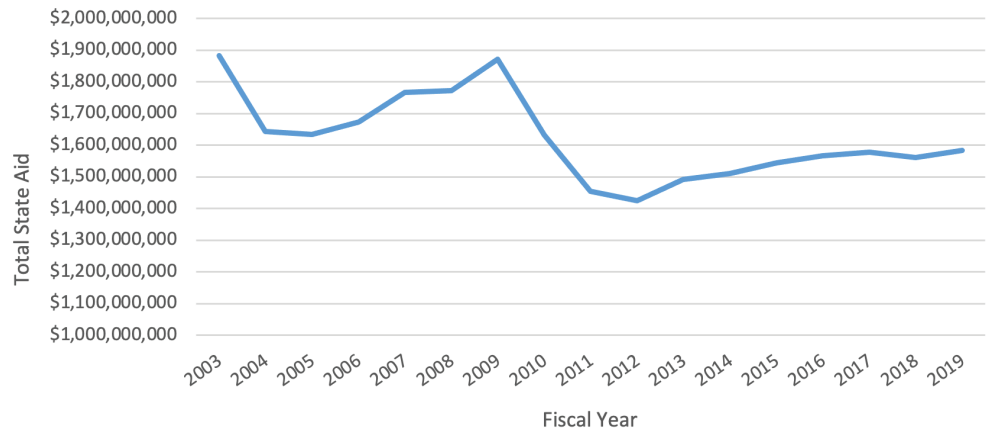


Clearly, state aid is a less reliable source of funds because it is under the control of the State rather than the municipalities themselves. For example, during the FY2021 budgeting process, which began just prior to the pandemic outbreak in the Commonwealth, the State repeatedly delayed its own budgeting process, leaving municipalities scrambling to develop and pass budgets with little clarity on state aid levels. Many municipal officials understand well that during the Great Recession, total state aid fell as a result of the State’s own budgetary challenges and has never recovered in inflation-adjusted terms. The chart below demonstrates that in FY2019 total state aid was nearly 16% below FY2003-levels in real terms.

6 Not including Enterprise and Community Preservation funds.

7 Not including Enterprise and Community Preservation funds.

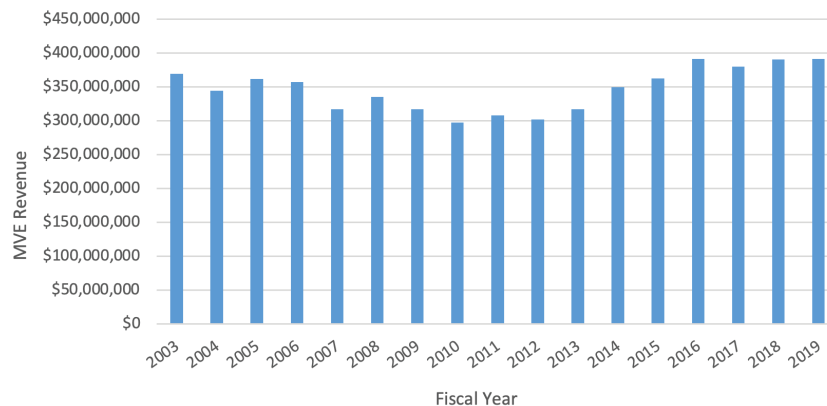
State Aid Total to All MAPC Municipalities
(2003 constant dollars)



The role of local receipts as a revenue source

A more minor but still important revenue source is local receipts. This category can be more difficult to define. Some municipalities include revenues from utility operations (e.g., water, sewer, and/or electric) if they do not operate these as enterprise funds. However, overall, about 12% of municipal revenue in the MAPC region is categorized as local receipts with a range of approximately 3% in Lincoln to more than 50% in Norwood⁸. The largest sources of local receipts in FY2019 were: motor vehicle excise tax (22% of total); licenses and permits (14%); and the room tax (also known as the hotel/motel tax) (8%). These sources, along with the meals tax (4%), made up nearly half of total local receipts and are considered more elastic revenues, meaning that they are highly responsive to the economic situation. Under recessionary conditions, these revenues are expected to drop as people are less likely to buy new cars, build or substantially renovate properties, travel, and go out to eat. The pandemic had immediate negative impacts on licenses and permits, room tax, and meals tax revenues, and it remains to be seen how long-lasting the trend will be and how quickly the economy may rebound. Typically, motor vehicle excise revenues lag economic conditions and, as the most significant source of local receipts, this is a revenue stream that municipal officials statewide are currently carefully monitoring for pandemic impacts. As the chart below shows, the Great Recession caused a multi-year depression of these revenues, which did not recover to FY2008 levels till FY2014 in the MAPC region.

Total Motor Vehicle Excise Tax Revenue
(2008 constant dollars)



⁸ Norwood counts significant utility revenue as a local receipt.

The stability of the property tax underpins municipal finance in Greater Boston

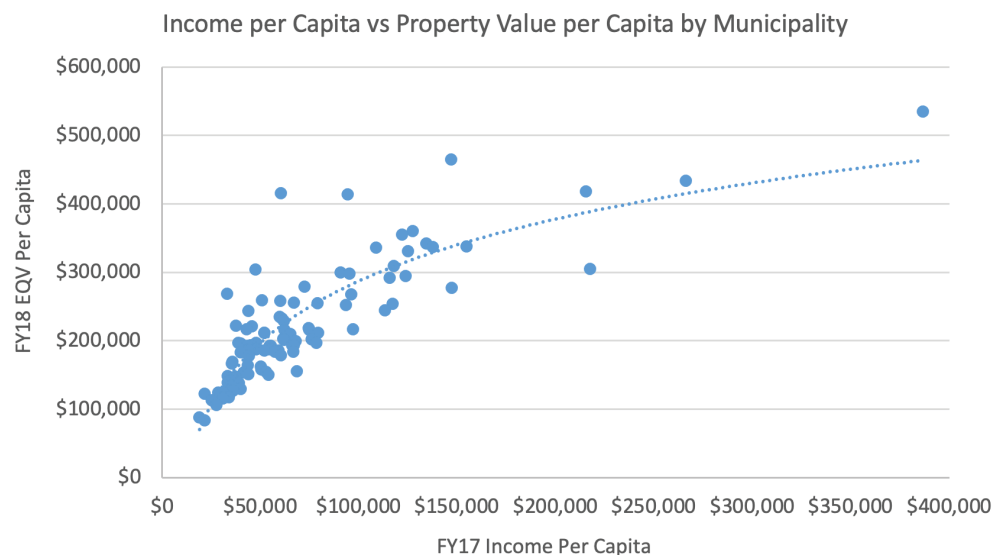
Whatever its other faults, as discussed in both the preceding and following sections of this assessment, the property tax does provide a core level of stability and predictability to municipal finance in Greater Boston.

How municipal and regional financing in Greater Boston impacts inequality

The way local government in Greater Boston is financed exacerbates inequality, while simultaneously taking some self-correcting steps to mitigate those effects. There is some evidence that the primary form of revenue for municipalities in Greater Boston, the property tax, is regressive and can exacerbate inequality, both along economic and racial/ethnic lines. It can also exacerbate financial differences between municipalities in other ways, most notably through the unequal distribution of CIP property tax revenue throughout the region. Contrarily, and partially in response to the regressivity of the property tax, the next largest sources of revenue, which are the several main forms of state aid, are distributed via formulas designed to make state aid more progressive.

Taxing capacity is (not surprisingly) correlated with average income

Although imperfect, the simplest way to see the inequality embedded in the property tax is to look at the total value of the property in each municipality and the number of residents. This number is known as equalized valuation (EQV) per capita. Across Greater Boston, the EQV per capita ranges from a low of \$83,000 to a high of \$535,000. The mean EQV per capita is \$231,000, and the median is \$151,000. What this shows is that the total revenue theoretically available to support municipal governments through property taxes is wide-ranging and unequal. For the most part, this inequality correlates with the average per capita income of the municipality, meaning that the highest income municipalities have the most theoretical property tax revenue per capita available, and the lowest income ones have the least. This is demonstrated in the chart below.



The property tax also creates disparities based on level of commercial and industrial activity

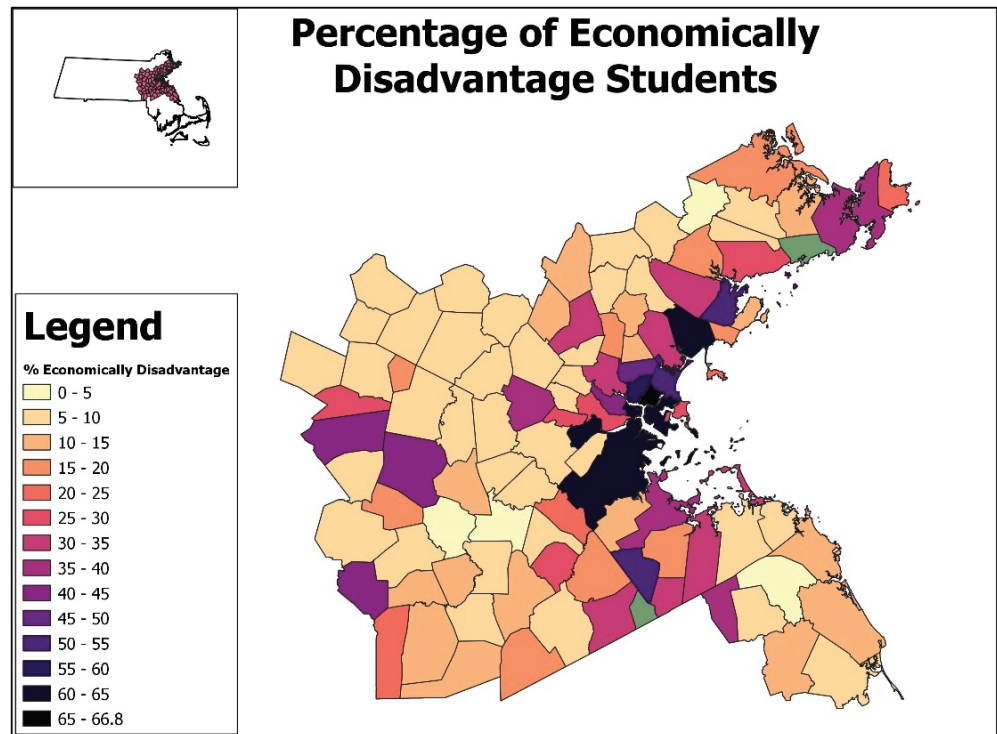
The other main way in which the reliance on property tax exacerbates disparities between municipalities is due to the vastly different numbers and values of commercial and industry properties within each municipality in the region. This was discussed earlier in the analysis. (See map above.) Those with significant commercial or industrial tax bases face very different circumstances than those without. However, commercial property tax revenue is not correlated with income in the way that the overall property tax revenue potential is. The disparities added by the unequal distribution of commercial property tax revenue sometimes negatively impact low-income municipalities, but they sometimes impact high-income municipalities as well.

The property tax may also exacerbate racial and ethnic inequality

Independent from economic inequality, some national research has also found the property tax to exacerbate racial and ethnic inequality, both through the differential in value by neighborhood between assessed value and market assessments, and through racial differences in seeking and being granted appeals. There does not seem to be specific evidence of this for Massachusetts, but there is also no reason to think that the Commonwealth would be an exception. Moreover, due to the correlations between income levels and race/ethnicity, the property tax also exacerbates racial and ethnic inequality through its regressive structure.

State aid partially offsets regressivity, but at the cost of creating greater unpredictability in lower income municipalities

Partially as a result of regressivity inherent in the property tax, some state aid distribution formulas have progressive features. In particular, the complex formula to determine Chapter 70 education aid is progressive in distributing this substantial, key local revenue source. Efforts to reform the foundation budget since 1993, including in the most recent work of the 2015 State's Foundation Budget Review Commission, have made it more progressive. For example, recent reforms acknowledged the increased costs of educating English Language Learner, low-income, and special education students, who are often concentrated in less-resourced municipalities. As the map below shows, economically-disadvantaged students are not evenly distributed among the 101 cities and towns in the MAPC region.



The other key source of state aid, UGGA, is distributed based on a formula which provides proportionally more aid to cities and towns with lower property values than those with greater property values.

There are other, smaller sources of state funding available to municipalities, some of which have progressive features and some of which do not. For example, the Parkland Acquisitions and Renovations for Communities (PARC) Grant Program is a reimbursable grant that assists municipalities acquire and develop land as parks or outdoor recreation facilities. The reimbursement rate varies from 52 to 70% based on the municipality's equalized valuation per capita decile rank.

Taken together, the progressive nature of state aid and grant opportunities works to partially counterbalance the regressive nature of the property tax. However, it also leaves less-resourced municipalities more dependent upon the State and more vulnerable to cuts in state aid than their more property tax-dependent counterparts and facing the challenge of managing a more unpredictable and less stable revenue situation, compared with other municipalities. The repercussions of this include more challenges in long-term budgeting and financial planning and exposure and risk of lost revenue during difficult State revenue situations, as seen during the Great Recession.

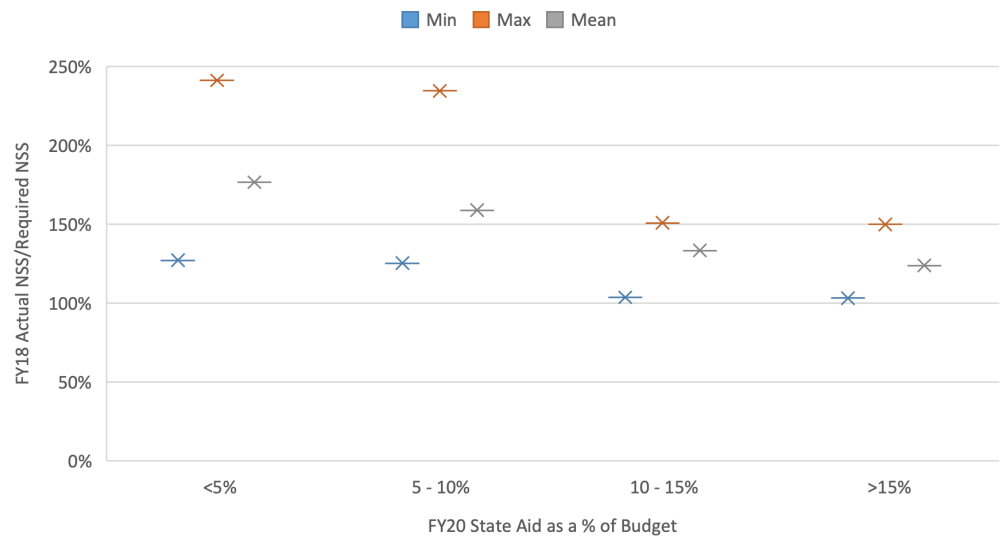
It is important to note that while the revenue structure of most MAPC municipalities has a significant regressive component, overall tax regressivity/progressivity is impacted by the tax structures of the State and Federal governments.

Municipal spending choices can also impact inequality

It is not only on the revenue side of the ledger that municipal finance impacts inequality. Municipalities provide or play a role in providing essential services

which can have a direct and indirect impact on inequality and opportunity, including public education, public safety, public health, safe and affordable housing, open space and recreation, and transportation infrastructure and public transit. Through its spending choices, a municipality may deliberately or inadvertently contribute to increasing equality or inequality (and often, it is a mix of both). However, those with fewer resources face significant challenges in affording the levels of service, types of programs, and investments necessary to combat systemic inequality. To take just one example, there are clear differences in school spending across municipalities. A state formula sets a required level of “net school spending” (NSS) for each city and town that is made up of Chapter 70 state aid and a required local contribution. However, some municipalities spend more than what is required through their school district budgets. As the chart below shows, municipalities that are less reliant on state aid are more likely to spend more than is required. While this does not tell us how effectively or efficiently money is being spent, it does illustrate an example of the spending inequities driven largely by a municipal finance system dominated by the property tax.

Actual Net School Spending as a Percent of Required Net School Spending Compared with Reliance on State Aid



Conclusion: what the next 30 years might look like without changes

One summary of what the next 30 years could look like would read as follows: “an increasing share of state and local revenue going to the very worthwhile cause of education, a decreasing share of state and local revenue going to all other local services, a growing reliance on property taxes by cities and towns – notwithstanding Proposition 2½ – and an increasingly frustrated citizenry who are unable to find coherency in a situation where property values have gone up but fundamental governmental services at the local level are threatened or have deteriorated.” The fact that those words could describe the next 30 years is noteworthy, because they were written in a 2005 to describe the then-current situation.

As this assessment shows, although the day-to-day finances of the cities and towns are largely in decent financial shape today, there are significant worrying trends, as well as looming future costs that require consideration. Further, as awareness of social and economic justice issues continues to rise, it is critical to reflect on and address the inequities of the financial system. At its most basic, the challenges of the municipal finance system are that revenue diversification at the local level is limited and options for relief are few.

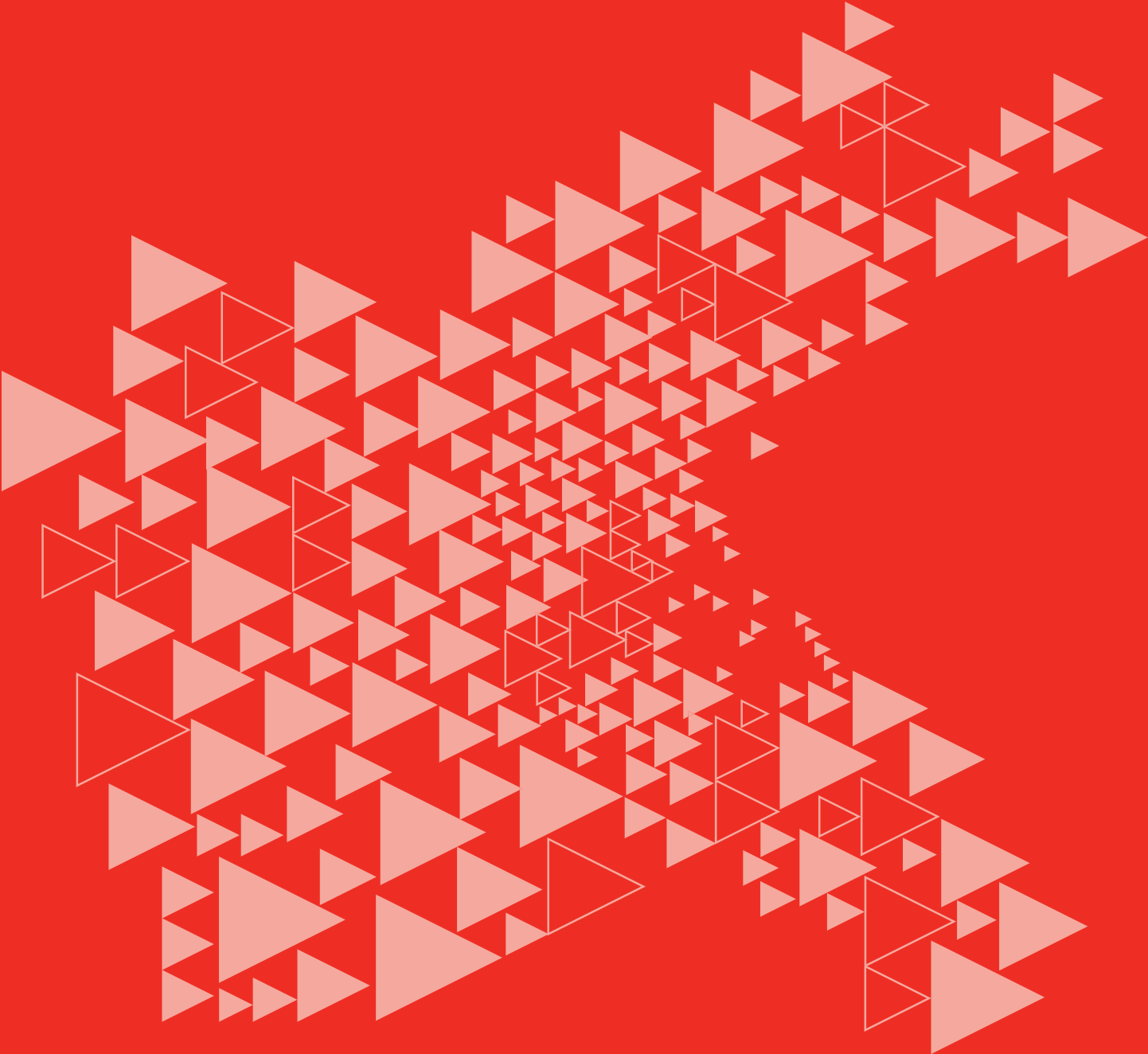
Cities and towns in the MAPC region collectively face increased reliance on the property tax, a tax with regressive properties, while being simultaneously constrained in how much they can raise by Proposition 2 ½. Moreover, the concentration of commercial property value in relatively few municipalities puts the entire financial burden on the residential property class in some municipalities. At the same time, state aid has been eroded by inflation and significant negative events such as the Great Recession and the covid-19 pandemic. Those less-resourced municipalities that rely on state aid face uncertainty and unpredictability of a key revenue source that is entirely outside of their control. Moreover, local governments are severely constrained by the State Constitution in their ability to levy new taxes. Newer revenue sources - such as the hotel/motel and meals tax and cannabis-related revenue - made available in the last decade are heavily-regulated and do not (as of yet) raise enough to create a substantially more balanced revenue portfolio.

These revenue challenges are coupled with budgetary challenges. For years, cities and towns have dealt with issues such as rising healthcare insurance costs, unfunded pension liabilities, and the high cost of delivering a high-quality public education. These issues remain, but also on the horizon are a wave of additional costs, including capital costs to repair or replace essential infrastructure such as roads and bridges, unfunded OPEB liabilities, and proactive and reactive efforts to create a climate resilient environment. Ignoring these costs could have not only financial implications, but also significant public safety and health repercussions.

Facing these daunting budgetary challenges, and with limited options for growing or expanding their revenue base, municipalities are in a precarious situation. Several policy recommendations are made below to address these challenges so that municipalities can continue to have the means to provide essential and desired public services and meet the goals set forth in MetroCommon 2050.

⁹ “Massachusetts Municipal Finance Task Force, “Local Communities At Risk: Revisiting the Fiscal Partnership Between the Commonwealth and Cities and Towns,” September 2005, <http://www.mapc.org//Local%20Communities%20At%20Risk%20Report.pdf>

MetroCommon 2050 × Community Engagement
Listening to the Region



Listening to the Region

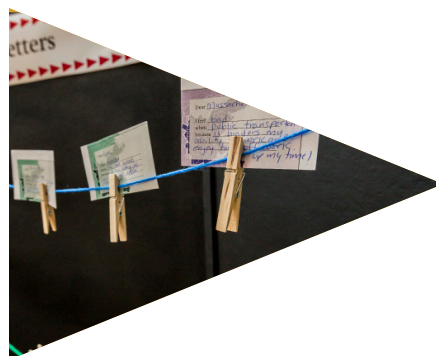
Community engagement is a core practice at MAPC. We have five full-time engagement staff members and many planners trained in effective engagement techniques. Every year, we manage over 100 projects throughout Greater Boston. These projects include soliciting residents' opinions and incorporating them into recommendations for our partners to pursue. And because our recommendations are based on our previous regional plan, we've been consistently engaging the region on these topics since (and before!) 2008.

MetroCommon 2050 has provided the opportunity to confirm and challenge what we think we know about what the residents and workers of Metro Boston want for our future and the steps that are needed to achieve that vision.

Throughout the MetroCommon process, we used pre-established criteria to decide where to focus engagement efforts and how to decide on final perspectives. One of the first things we did was to establish the MetroCommon 2050 values.¹ We used the values, especially equity, to guide our external engagement strategy and to ensure that our writers were creating content from a common, shared perspective. Our content creation was also guided by MAPC's 2015 Strategic Priorities.² Those priorities are smart growth, regional collaboration, equity, and climate change.

A primary goal for engagement was to connect with potential implementers of the regional plan – municipal and state officials, community leaders, and subject matter experts. Engaging these “grasstops leaders” provided a diverse array of viewpoints on the plan's content.

The other guiding principle for engagement was to involve people who represent and are part of communities the planning industry has historically left out of planning processes, as well communities likely to be most impacted by the plan's recommendations. This population includes, for example, people of color, low-income residents and workers, and people living with disabilities. Members of these groups provided expertise gained from personal experience in addition to their professional expertise. These perspectives added to and tested what we heard from “grasstops” throughout the planning process.



1 Values

2 Strategic priorities

MetroCommon 2050 Committees

We convened multiple advisory committees to guide and advise us on our process and content.

▶ **Process Design Committee**

Made up of external partners and advised us on how to design an inclusive process that will produce a compelling and worthwhile plan for the region.

▶ **Staff Advisory Committee (STAC)**

Consisted of MAPC staff members from a variety of departments. The STAC helped design the approach for developing the plan.

▶ **External Advisory Committee³**

Composed of more than 40 local experts, practitioners, and advocates that provided guidance and feedback on our process and content. The EAC was organized after a public call for participation. Each potential EAC member completed an application expressing their interest and the background and experience they would bring to the planning process. We used the MetroCommon 2050 values to vet the candidates, and we sought a balance of gender, racial, expertise, and geographic diversity.

▶ **Community Engagement Advisory Committee⁴ (CEAC)**

Support us in designing equitable and impactful engagement strategies.

▶ **Scenario Planning Advisory Committee (SPAC)**

Made up of local experts who assisted with the difficult task of identifying future uncertainties and scenarios.

As advisory committee members began regularly attending meetings, we noted that the diversity of our committees varied. The EAC, while it had representation of most of the characteristics cited above, had greater representation of White people and residents of the Inner Core communities. CEAC members however, were majority female and of color. Because of this inconsistency in committee representation, we redoubled our efforts to include organizations that represent populations who've been historically marginalized.⁵

Throughout the process, we engaged MAPC's eight Subregional Committees. These are the organizations, each coordinated by an MAPC staff member, to which each municipality in our region belongs, and through which MAPC works with its cities and towns. Each subregion includes municipal officials and regional and community stakeholders. The Subregional Committees are **The Inner Core Committee (ICC)**, **The North Shore Task Force (NSTF)**, **North Suburban Planning Council (NSPC)**, **Minuteman Advisory Group on Interlocal Coordination (MAGIC)**, **MetroWest Regional Collaborative (MWRC)**, **SouthWest Advisory Planning Committee (SWAP)**, **Three Rivers Interlocal Council (TRIC)**, and the **South Shore Coalition (SSC)**.

We are immensely grateful to all of our committee members that lent their time, passion, expertise, and good counsel to MetroCommon 2050.

³ Link to list of EAC members

⁴ Link to list of CEAC members

⁵ Please see here for a list of organizations

MetroCommon 2050 Engagement Strategies

Our engagement strategies took many forms. These included human-centered design interviews, open house events, pop-up tabling at events, workshops, focus groups, presentations followed by breakout groups, surveys, and one-on-one meetings.

When the COVID-19 pandemic hit, we were forced to pivot to remote engagement. We believe we were able to engage more people because of this shift.

We committed to a comprehensive branding strategy for MetroCommon2050, including an interactive, stand-alone website, which serves as a digital hub, hosting all of the research, goals, action areas and recommendations in development for people to weigh in on. We translated the goals and the draft recommendations into Spanish, Portuguese, Simplified Chinese, and Haitian Creole. We also developed [videos](#) early on in the process to communicate the purpose of the long-range regional plan and to introduce MAPC. The [MetroCommon video](#) was shared on social media, at events, and at meetings.

As previously mentioned, one of our two target populations were groups of people who are often left out of planning processes, including people of color and those who have confronted barriers because of racist and biased systems. Accordingly, we developed a geographic equity analysis of the communities on which we wanted to focus our efforts. We funded community partners with mini-grants to help us with outreach, focus groups, and collecting input in these specific communities – and we ensured that what we heard from these communities was crucial in developing the plan content.

Not only did we want to hear from people in the community, we wanted to ensure there were accessible ways for people new to some of the issues we discuss to get interested. We commissioned creative artwork – film, comic books, a graphic art short story, and illustrations – for storytelling supporting the vision of MetroCommon and to communicate the complex systems surrounding the five Action Areas. These pieces are also tools that municipalities and other partners can use in their work to educate their constituencies and implement MetroCommon.

► **Non-Profit Organization Grantees**

[Union Capital Boston](#)

[Wayside Family Services](#)

[Wellspring Multi-Service Center](#)

[Teen Empowerment](#)

[Commonwealth Seminar](#)

► **Artists**

[Ludgy Jean-Baptiste](#): Equity of Health & Wealth action area [comic book](#) and Dynamic Government action area comic book

[Ben Batchelder](#): Climate Mitigation & Resilience action area illustrations

[Anna Christine](#): Inclusive Growth & Mobility action area [graphic art story](#)

[Mariona Lloreta](#): MetroCommon [short film](#) and Housing for Everyone action area [short film](#)

[Nicholas Vandenberg](#): MetroCommon [introductory video](#) (editor and sound).
Script and camera work by MAPC staff.

Over the three years of engagement we heard from more than 1,900 people through over 60 events. Through that process, we've received over 3,600 comments. To review the comments we received, please visit our [Feedback Database](#).

Summary of MetroCommon 2050 Planning Phases

Our engagement strategy supported the five phases of MetroCommon 2050. During our **design phase**, we sought assistance in designing the planning process. We asked MAPC staff, the MAPC Executive Committee [link], and an external committee composed of practitioners to advise us on designing a process to develop the plan. In our **visioning phase** we engaged residents and municipal staff around what they wanted the region to look like in 2050. We used that information to inform the MetroCommon 2050 vision for 2050, which includes MetroCommon 2050 goals. Next, we engaged specific groups of people around various elements of the plan. Our **action area phase** built the themes of the plan. We built the action areas from the feedback we received during the visioning phase and organized focus groups to review draft action areas. In the **scenario planning phase**, we convened a group of external experts to explore a number of possible futures. We also created activities for the MAPC Council [link] and the region's residents to assess the impact and effectiveness of various policy actions depending on future uncertainties. Our **policy recommendation phase** was the final phase of plan development. With the results of our engagement to date, MAPC staff developed policy and programmatic recommendations that we believe will put the region on the path towards achieving MetroCommon 2050 goals. Once we drafted these policies, they were vetted by MetroCommon 2050 external advisors and other key stakeholders and mini-grant partners, sent via online survey for comments, and presented for feedback to various focus groups and subregional members.

Turning Feedback into Content

Creating a regional plan requires the authors to make decisions on what feedback to incorporate. We acknowledge that most of the authors are White and work in and/or learned from institutions and disciplines that have not succeeded in making the region equitable, especially for people of color. As previously mentioned, we used the plan's goals and values, as well as an enormous amount of feedback, to decide what content and recommendations to include in the plan. We will continue to engage residents after we publish MetroCommon 2050 and when we identify actions that more accurately meet our goals and values, we will update and incorporate them.

What Effect did Feedback Have on Plan Design?

Our Human Centered Design interviews and analyses guided us to build and prominently feature tools planners could use to influence their constituents. Among those tools are the action area art pieces we commissioned from local artists, which make the basics of the issues we face more engaging and accessible.

MetroCommon 2050 Phases and Engagement Tactics

Design Phase

From May 2017 to May 2018, we designed the process by which we would develop MetroCommon 2050. We planned the process on the basis of institutional knowledge, our Human Centered Design interviews and analyses, a survey of recent regional planning processes across the country, and inspiration and feedback from the STAC, EAC, and CEAC committees. We decided the planning process would consist of the following five phases:

- ▶ **Phase 1:** Groundwork and Visioning
- ▶ **Phase 2:** Action Areas – Strategic Challenges/Opportunities and Driving Forces
- ▶ **Phase 3:** Scenario Modeling
- ▶ **Phase 4:** Recommendation Selection
- ▶ **Phase 5:** Plan Assembly and Public Release

The MetroCommon process design was approved by our committees and in June of 2018 by the MAPC Executive Council. Read more [here](#).



Visioning Phase

Our intention for the visioning phase was to engage residents and leaders around the question “what do you want the region to be like in 2050?” We hosted five listening sessions across the region, and more than 200 people attended. We convened municipal, state, and subregional leaders for focus groups. We put the questions online and took them to organizations and groups whose constituents we thought might be less likely to get involved. We paid specific attention to getting feedback from historically marginalized populations. Details about our events are here. [link]

We used what we heard to create the vision and goals for MetroCommon 2050. We started with MetroFuture, the previous regional plan, and evolved its vision and goals to square with what we heard from residents during our outreach.

The goals are intended to be bold, yet achievable. They are the destination to which the plan points the way.

The Goals



Getting Around the Region

Traveling around Metro Boston is safe, affordable, convenient, and enjoyable.



Homes for All

All residents of Metro Boston have places to live that meet their needs, and that they can afford.



A Climate-Resilient Region

Metro Boston is prepared for – and resilient to – the impacts of climate change.



A Net Zero Carbon Region

The Metro Boston region is highly energy efficient and has reduced its greenhouse gas (GHG) emissions to net zero.



Dynamic and Representative Governments

Local governments and regional agencies have the capacity and resources to deliver the services and supports our residents deserve, and to maintain and invest in our built and natural environments.



A Healthy Environment

Greater Boston's air, water, land, and other natural resources are clean and protected – for us and for the rest of the ecosystem.



Economic Security

Everyone has the financial resources to meet their needs and to live fulfilling lives.



Economic Prosperity

Greater Boston's economy benefits all in the region.



Healthy and Safe Neighborhoods

We are safe, healthy, and connected to one another.



Thriving Arts, Culture, and Heritage

Greater Boston is full of unique places and experiences that bring joy and foster diversity and social cohesion.

What Effect did Feedback have on the Vision of the Plan?

- ▶ Strengthened the emphasis on public sector design and the role of the arts in placemaking
- ▶ Specified where specific populations should be prioritized for support and investments
- ▶ Added more emphasis on creating better access to homeownership and deeply affordable housing
- ▶ Elevated some of the challenges with water quality and availability

Action Area Phase

MetroCommon 2050 uses Action Areas to frame our thinking about how to get to our goals over the next 30 years. Action Areas consist of connected issues, or systems.

The **Action Areas** for MetroCommon 2050 are:

- ▶ Homes for Everyone
- ▶ Climate Change Adaptation & Mitigation
- ▶ Inclusive Growth & Mobility
- ▶ Dynamic and Representative Government
- ▶ Equity of Wealth and Health

We drafted the Action Area descriptions internally, relying on the multidisciplinary expertise of MAPC staff. We sent drafts to experts and interviewed them to gather their feedback. We adopted the provisional Action Areas during the design process. Great debate occurred over whether to separate climate mitigation from adaptation, but the argument for keeping them as a unified topic carried the day.

Each Action Area description includes a history of how the status quo came to be, our understanding of the systems that influence the area, major challenges and opportunities, and a focus on where interventions are likely to be most effective. The plan's recommendations nest within the Action Areas as well.

We spent the bulk of 2020 developing the Action Area content and then vetting this content with the public. Staff started the process by using driver diagrams to explore the systems at play within each Action Area. We then built out the content described above, testing it with the EAC and MAPC Council members. For each Action Area, we conducted multiple focus groups with subject matter experts to better understand the intersectional nature of these systems and to identify gaps in our content. We also hosted workshops with our mini-grant partners. At these events, attendees completed exercises to affirm, challenge, and strengthen the action areas. We asked constituents, municipal staff, community leaders, and field experts about the challenges and opportunities they saw within their work, homes, and the region as a whole. (List of engagement activities)

What Effect did Feedback Have on Action Areas?

- ▶ Reduced the emphasis on making changes to the structure of local governments and instead focusing on making it easier to collaborate, incentivizing multi-municipal partnerships, devolving some state decision-making to smaller geographies, and continuing to provide remote opportunities for residents to engage and participate in local government business.
- ▶ Reinforced that local government customer service needs to be improved to make sure everyone feels respected and able to be heard
- ▶ Led us to emphasize that state and local investment and development decisions need to focus much more on smart growth consistent locations, improve the jobs/housing balance; and build and preserve much more affordable housing, especially in transit-served areas.
- ▶ Lent urgency to the work of addressing root causes. Many comments focused on the need to improve economic and housing security and stability for the lowest income residents and workers in order to achieve the long-term goals outlined in MetroCommon.

Scenario Planning Phase

In scenario planning, we explored a handful of possible futures, and we assessed the impact and effectiveness of various policy actions within them. We used this technique to gauge if our policy recommendations were robust enough to withstand the surprises the future may hold and to build the case for how the recommendations might be adapted as future conditions unfold.

The discussion of future uncertainties went through an extensive engagement process involving an external advisory committee, an internal advisory committee, and MAPC staff input. The advisory committees were comprised of people who understood the complexities of the region and current trends in data and who could think creatively about the future. Members came from industries such as research organizations, private sector companies, non-profit agencies, and government agencies.

After exploring a variety of future uncertainties, the advisory committees determined to highlight three for closer examination. These were largely independent, likely to happen, and bound to have high impact on the region. The advisory groups helped think through what the impacts of these forces might be, what areas of life they would influence, and how they should be combined into scenarios.

Once we developed the scenarios and correlated them with potential policy recommendations, we held three workshops and asked the MAPC Council and constituents to weigh in on each scenario. These events, “Planning for the Unknown,” included a brief presentation on the developed content, then dove into the question of whether participants felt the identified policies would address the potential scenarios we envisioned playing a role in the future of the

region. In January 2020, this work was publicized at the Massachusetts Municipal Association’s Annual Meeting and feedback was collected on the MetroCommon 2050 website.

What Effect did Feedback have on Scenario Planning?

- ▶ Convinced us to talk about future travel both in terms of the way we move around and the amount we move around.
- ▶ Convinced us to treat the federal response to climate change as an uncertainty – as opposed to the level of climate change itself.
- ▶ Produced the content of the report “Our Main Takeaways to Better Plan for Policy and Action Going Forward” [[link to section of plan](#)]

Policy Recommendation Phase

The final phase of the development of the plan was to create actionable recommendations that would get the region on the path to meet the 2050 goals. To begin, we crafted a table of contents, which was a list of 20 policy areas to prioritize. We then assigned MAPC staff with topical expertise to draft the recommendations. Staff were encouraged to review research, interview external practitioners and policy experts, and study previous work conducted at the agency.

We made each recommendation available for staff feedback. To ensure feedback helped move the recommendations in a more equitable direction, we asked staff to consider the following questions when providing their input:

- ▶ To what extent does this policy align with the MetroCommon 2050 goals?
- ▶ To what extent does this policy explicitly benefit communities of color?
- ▶ In what way could this policy negatively impact historically disadvantaged groups and what can be done to mitigate that from happening?
- ▶ If this feedback is incorporated, could the recommendation reasonably be implemented on a 2030 timeline? A 2050 timeline?

While staff engaged a group of external stakeholders in their networks throughout the initial drafting process, deeper and widespread engagement began with the draft recommendation outlines in January 2021. We sent drafts of the policies and practices around the region for feedback. We sent them directly to policy experts, practitioners, and advocates. We held events, presented to groups that were involved in the Visioning Phase, such as the Massachusetts Association of Planning Directors, and convened 27 focus groups with subject matter experts and with mini-grant participants over the course of the winter and spring to get deeper feedback on the draft recommendations. All of the drafts were then updated and posted online along with a survey that allowed members of the public to provide comments on specific strategies and actions presented.

Engagement Activities

MAPC hosted a virtual municipal leadership “breakfast” with over 100 municipal leaders in the region to present and gather feedback on the Dynamic and Representative Government recommendations.

MAPC staff presented draft recommendations of interest at each of the eight subregions to gather feedback from municipal staff and board members.

The focus groups were also issue specific, each featuring one to three recommendations, to get more thorough input from policy experts, practitioners, and advocates.

Additionally, through the mini-grant program, we identified non-profit organizations that could convene their stakeholders and broaden MAPC’s outreach to people most impacted by the policies to ensure we incorporated the perspectives of young people, people of color, and people who’ve faced barriers to accruing wealth. Fourteen focus groups were co-led with five community-based organizations throughout the region. Four were held in different languages: Spanish and Portuguese. As with the other focus groups, these discussions featured a presentation of a small subset of the recommendations, followed by a discussion about whether the ideas presented would make a demonstrable positive impact on their lives. Some of the most thoughtful, thorough input received during the engagement process came from these conversations.

After some updates and iterations based on initial feedback from these meetings, the draft recommendations were posted online along with a survey that allowed members of the public to provide comments on specific strategies and actions presented. The draft policy recommendations were translated into four languages.

What Effect did Feedback Have on the Plan’s Recommendations?

The recommendations went through a number of iterations as feedback was collected and incorporated. Some of the more significant changes included:

- ▶ Modified recommendations to more directly target root causes as opposed to the symptoms of the problem.
- ▶ We heard that we need to be more explicit about how ideas were cross-cutting, and so we made sure that our recommendations could take the cross cutting approach (impacting both housing and climate priorities, for example).
- ▶ Attempted to be more explicit about identifying who the actor that can take the action is and how implementation could work.
- ▶ In response to concerns that there were too many new entities with controversial powers called for throughout the recommendations, we modified a number of recommendations to be more collaborative and incentive-based. We revised the idea of a regional land use board that could intercede in development permitting. We also turned the idea of a broadly-focused infrastructure coordinating committee into a regional climate infrastructure bank.

- ▶ In the wake of extensive feedback on the public safety recommendations, redrafted this recommendation to focus more on reducing the need for police intervention and the likelihood of violence in those situations.
- ▶ Scaled back the integrated watershed management recommendation to begin with a pilot in one or two watersheds before being deployed statewide.
- ▶ Recast the idea of a regional park ownership and management system to be a regional park collaboration to identify maintenance, investment, and expansion priorities.

Significantly changed the recommendations about potential reforms to the Community Preservation Act to be less prescriptive on municipalities and reduced the state funding target to a 50% match, which would still be a significant infusion of new resources.

Having heard the need for more focus on older adults in our public health recommendation, added specific actions for age-friendly living.

Many of the recommendations include actions the Massachusetts Legislature must take. To gather legislative input, MAPC first hosted a virtual State House briefing on the future of work, which included a preview of some of the recommendations that are most tied to advancing an equitable and resilient recovery. During the following week, MAPC held two smaller legislative focus groups on different subsets of recommendations that support economic recovery. One focused on small business support and workforce development, and another on aligning our climate, housing, and transportation policy with our economic goals.

The largest push of engagement was during the month of May. During “MetroCommon May,” an all-hands effort was employed to promote the recommendations and further collect feedback through the survey. There was a kick-off event that featured the short film, *Living Together*, to draw attention to MetroCommon and share stories of people in the region.

At the end of this planning process, the recommendations will remain posted on the digital hub with an interactive feature to continue to collect comment. MetroCommon is intended to serve as a living document. As the needs of the region evolve, MAPC will continue to consider and incorporate feedback after the plan’s official release.

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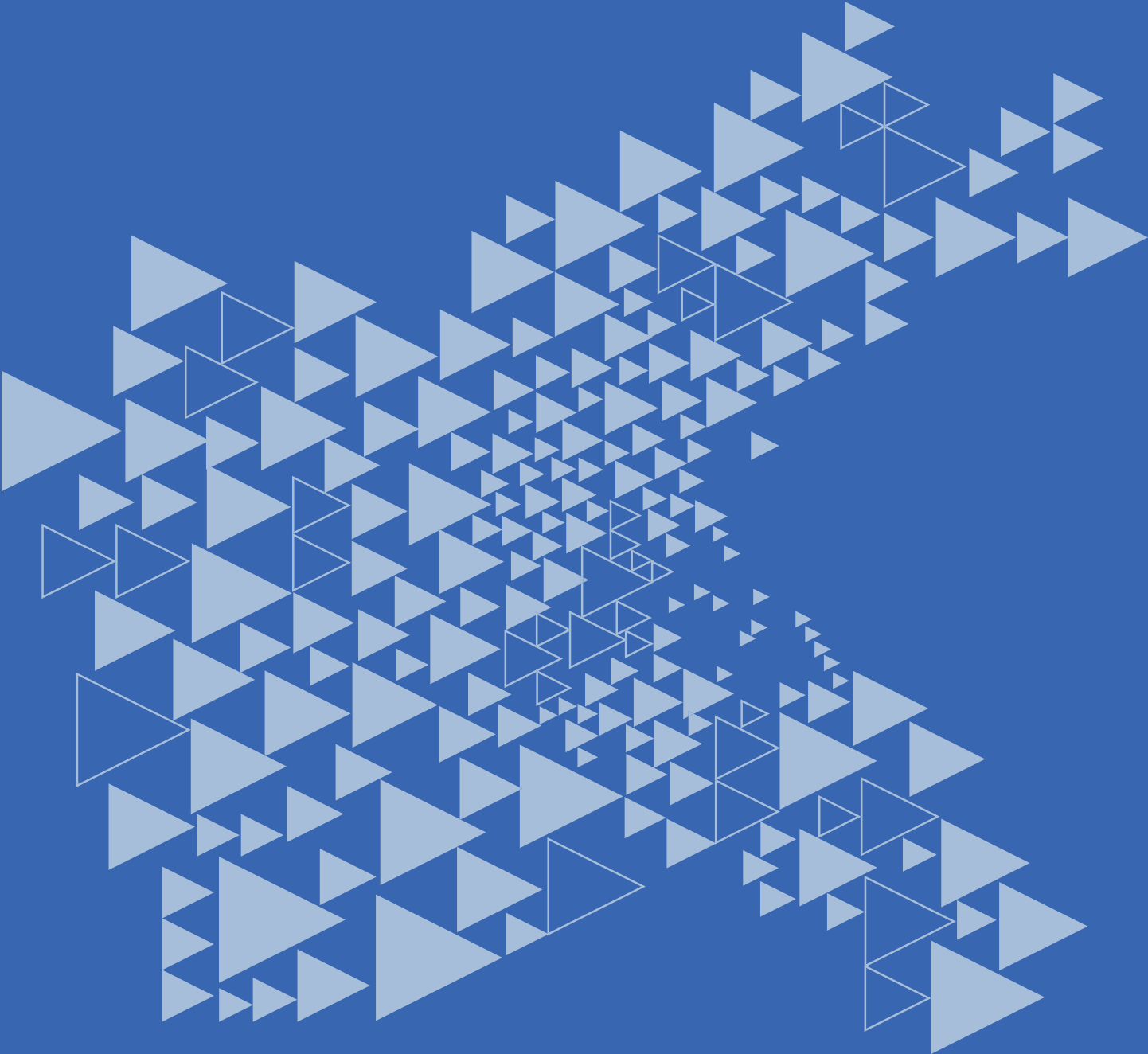
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Introduction

MetroCommon 2050 is a long-range regional plan. Its purpose is to dig into issues bigger than any one place, and to explore ways communities should work together. But part of what makes Greater Boston itself is the independence of its 101 cities and towns. Balancing that traditional local focus with the benefits of thinking regionally was MAPC's first MetroCommon challenge.

Our solution was to take what our cities and towns had written into their own plans, and use those priorities as the foundation of MetroCommon.

As of March, 2019, MAPC has completed a systematic project to catalog and analyze a large sampling of local plans. We found many differences from place to place. But we also found common concerns that have only common solutions.

We will be using values, data, and analysis from many sources to develop the regional plan. But what we found in the region's local plans is the bedrock on which we build MetroCommon 2050.

Findings and Conclusions Summary

In order to complete a consistent analysis of local planning information, the master plan was chosen as the most appropriate document type for the purpose of gaining insight into a municipality's local planning priorities. This research examined 47 master plans, or equivalent plans, from municipalities throughout the region and cataloged the priorities those plans set forth. The plans reviewed were from a well-distributed variety of geographies and community types.

The priorities identified by the local plan review are supported by direct quotes from each of the plan documents reviewed. The plan quotes have been compiled into a database that is sortable by priority, theme, subregion, or community type. This analysis is being used to inform the development of the goals, and strategies for MetroCommon.

Having reviewed the local plans, MAPC was able to identify a list of the most frequently repeated 20 priorities (represented by the underlined phrases below). We grouped those priorities to define the following four themes that are evident in local planning priorities throughout the region and that should be examined as part of the regional plan.

- ▶ **Shape Positive Investment.** This theme is focused on guiding growth and development to shape positive change through revitalization, redevelopment of underutilized areas or assets, strengthening sustainability, addressing housing needs, and enhancing municipal assets. Several of the priorities that comprise this theme focus on guiding private investment, such as **encouraging revitalization** in locations with a concentration of activity, **focusing redevelopment** in locations that are underused or well-served by infrastructure, and **encouraging commercial growth**. Several other priorities that comprise this theme focus on guiding private

and public investments, such as **encouraging sustainable development, investing in municipal facilities and property** to serve the needs of the community, **producing more housing that is affordable**, and **expanding the types of housing** available.

- ▶ **Care for the Environment.** This theme is centered on stewardship and care for the environment, natural resources, historic assets, and open space systems that support healthy communities. Many priorities that elevate this theme were repeated across the local planning documents reviewed, including **preserving and managing open space, protecting water sources and quality, protecting natural resources**, and **expanding recreation and programs** for use of open space and natural assets. Another priority for stewardship is **preserving history** through the buildings, sites, and significant monuments that are important to many communities.
- ▶ **Improve Transportation Choices.** This theme is concerned with improving how people get around and strengthening the choices people have for how they travel. The most frequently repeated priority is included in this theme with the priority of **improving multimodal connections** for walking and biking found in most of the plans reviewed. Several other top priorities focus on transportation, including **improving transit service**, access and operation, **addressing traffic congestion** and lessening its negative impacts, and **improving walkability** as a safe, reliable and healthy form of travel.
- ▶ **Strengthen Cooperation and Action.** This theme is focused on the coordination and collaboration needed to advance community goals and effectively deliver municipal services. Several of these priorities focus on strengthening partnerships, such as **coordinating regionally** around the many issues that cross municipal borders, **collaborating with partners** to include a full range of private sector, public sector, non-profits, and others in solutions, and **improving communication and engagement**. Coordination and collaboration will assist with achieving the final frequently stated priority, **efficiently delivering municipal services**.

Other observations about the local priorities identified through this research:

- ▶ The most frequently referenced priorities fall within the Inclusive Growth and Mobility category. This category is most closely aligned with the priorities that would fall under “Smart Growth” and are focused on physical infrastructure and the built environment of sidewalks, roads, buildings, and open space amenities.
- ▶ Studying the differences in priorities between subregions and community types is interesting. Shifts in the priorities are evident between different subgroups. One example of this is affordable housing as a priority. Affordable housing is not elevated into the top five of the overall priorities, but is the number one priority of the community type of regional urban centers. This highlights the development patterns, assets, and roles these types of municipalities share throughout the region.

- ▶ Transportation is a high priority regardless of a municipality’s subregion or community type. Improving how people get around and their mobility choices are fundamental priorities for all municipalities. Some variation occurs within this general priority and is connected to the location of the municipality, the type of transportation assets available, and the development patterns of the municipality.
- ▶ While several priorities emerge that would address issues of equity in the region, equity is not a word frequently used in the local plan documents. Equity is not frequently addressed directly as a local plan priority.

Local Plan Priorities and Themes

MAPC’s review, sorting, and compiling of the 42 master plans and the five additional plans of 47 municipalities has resulted in the following lists of prioritized themes. We based the prioritization on the number of plans that reference the same or similar idea and the frequency that idea was referenced in the individual plans. We organized the priorities across several distinct groups in order to spot any differences among the groups.

The first grouping represents the overall regional priorities, and it includes all plans we reviewed. The second category of groupings represent the subregional priorities, and include only those plans from municipalities in a particular subregion. The third category represent community type priorities, and include only those plans from municipalities in a particular community type.

Regional

Order of priority based on number of entries for each topic and then sum of the frequency count.

The Top 20 Overall Local Planning Priorities include priorities that are highlighted in a majority of the plans reviewed. Each priority in this list was highlighted in at least 55% of the 47 municipalities’ plans. The other local plan priorities outlined beyond the Top 20 did not reach this threshold of being included in a majority of the plans reviewed. The highest priority, “improve multimodal connections,” is highlighted in 87% of the plans reviewed.

The Top 20 Overall Local Planning Priorities – Unclassified Throughout Region

▶ 1. Improve multimodal connections (94)

(The number of rows in the compiled spreadsheet of local plan priorities is 94. This number, a measure of the frequency of this priority across the plans reviewed and has been used to rank the list of priorities.

Nearly all of the plans highlighted the need for improved sidewalk and bicycle facilities to encourage walking, biking, and the use of public transportation in their communities. Improvements for walking and biking were consistently framed as improving connectivity and the ability to get around without a car, or to provide a diverse set of travel options. Some communities framed this priority as expanding inclusiveness and enhancing

mobility for people of all ages and abilities. Pedestrian and bicycle connections between important local destinations were highlighted and were discussed as part of the street system and as part of an independent system of trails and paths.

This quote from Framingham’s Master Plan is consistent with language used by many of the other plans for this priority: “Provide pedestrian connections between residential neighborhoods and adjacent commercial and industrial areas by providing high quality pedestrian and bicycle access.” Watertown’s Comprehensive Plan expands on this priority: “Promote alternative transportation options in town by further improving intermodal access and connections.” Watertown’s plan highlights the “potential for the Watertown Community Path to bring a multimodal opportunity to travel to and through the square ... [and to pursue] transportation demand management measures employed to reduce automobile use.” Another perspective is provided with this quote from Milton’s Master Plan: “Promote walking and biking. There is a significant increase in the awareness of the connection between planning and health and wellness. Milton residents placed a high priority on making improvements to the ability to walk and bike in a safe and pleasant manner.” Gloucester’s Harbor Economic Development Plan also prioritizes the improvement of multimodal connections, including “improve[ing] access and circulation,” as well as “land access and water access,” and “extending the Harborwalk.”

► 2. Preserve and manage open space (88)

Another highlight of many local plans was the preservation and management of open space in order to protect natural resources, meet the needs of residents, preserve habitats, and to preserve scenic beauty and character. For many cities and towns, this priority focuses on the identification and acquisition of additional open space or conservation land. Others focus this priority on responsible management and maintenance of lands under the municipality’s control or responsibility.

This quote from Littleton’s Master Plan is consistent with language used by many of the other plans for this priority: “The Master Plan recommends that the Town creates individual management plans for town-owned open space and agricultural lands to determine the best use of these assets and to make sure these assets are maintained over time.” Burlington’s Comprehensive Master Plan frames this priority as “Preserve open space through acquisition or other measures to protect and link natural resources to contribute to the Town’s character.” Another perspective is provided with this quote from Southborough’s Master Plan: “Southborough has worked to protect its natural resources through conservation restrictions, land acquisition, and zoning initiatives. Perhaps most important, the Town has supported the purchase of key open space parcels. The recent adoption of the Community Preservation Act (CPA) will allow the Town to allocate money for the purchase and protection of key open space resources.”

▶ 3. Encourage revitalizing investment (82)

Many plans outlined priorities to encourage investment to revitalize downtowns, town centers, village centers, and neighborhood centers. The municipalities recognize the importance of these centers of activity from historic, social, civic, cultural, and economic perspectives. The revitalization efforts highlighted included expanding range of activity, goods and services in these centers and strengthening the civic realm, shared amenities, and programs.

This quote from Somerville’s SomerVision Comprehensive Plan is consistent with language used by many of the other plans for this priority: “Strengthen and support neighborhood commercial centers that integrate residential uses, offer lively destinations and contribute to Somerville’s unique identity.” Dedham’s Master Plan provides a similar perspective on the priority: “Encourage and support the revitalization of neighborhood commercial centers such as East Dedham, Dedham Square, Oakdale Square, and the Route 109/Bridge Street area.” Another perspective is provided in Concord’s Envision Concord Plan: “Renew and improve Concord’s village centers as vital pedestrian-friendly, economic, and social hubs that enable community engagement on a wider scale.”

▶ 4. Invest in facilities and property (73)

This priority is focused on municipally-owned facilities and property and typically includes two related approaches to investment. The first includes investments in municipal facilities and property to preserve and maintain the asset while enhancing the use of the asset to support municipal services. The second includes the strategic assessment of municipal facilities and properties to leverage the assets for use by others, or to align with other municipal goals and objectives.

This quote from Franklin’s Master Plan is consistent with language used by many of the other plans for this priority: “Maintain, update and expand the Town’s utilities, infrastructure and facilities to satisfy the demands of the Town into the future, without infringing on previously established plans for conservation or preservation.” The Hudson Master Plan highlights investment in municipal facilities with this quote: “Improve the comprehensive planning process for short- and long-term capital improvements for all town facilities and services. ... Given the often conflicting demands, establish priorities for building and facility upgrades and replacement.” Another perspective is provided in Malden’s Master Plan: “Malden’s community facilities and services support community needs and enhance quality of life. We will implement, maintain, and upgrade essential community facilities and services to meet existing demand and support growth where feasible and appropriate. Our community facilities will be high quality public spaces for all to enjoy and access.”

► 5. Preserve history (66)

This priority more specifically relates to the preservation of historic and cultural assets in a municipality. The assets highlighted include buildings, sites, documents, archaeological resources, landscape features, viewsheds, and other local features. Preservation is pursued through tools such as zoning, the Community Preservation Act, demolition delay bylaws, documentation of assets, expanding public awareness, and other strategies.

This quote from Belmont's Comprehensive Plan is consistent with language used by many of the other plans for this priority: "Broaden preservation and protection of Belmont's historic buildings, sites and neighborhoods." Belmont's Plan outlines similar approaches: "[E]ducate the public on the benefits of historic preservation ... [C]onsider adoption of demolition delay by-law ... [C]onsider adoption of the Community Preservation Act... [U]pdate national Register of Historic Places ... [E]nact density bonuses, flexible dimensional and parking standards to facilitate preservation." Middleton's Master Plan offers this perspective on the priority of preserving history: "Enhance efforts to protect and maintain Middleton's historic and cultural resources. Create, maintain and update inventory list of properties with historical significance and highlight those properties that may be at risk. Form Preservation or Restoration Committees for primary historic building resources, such as the Flint Library or Old Town Hall. Form a support network for historic home owners to promote awareness of historic homes and connect homeowners to resources." Another perspective can be found in Medway's Master Plan: "Preserving buildings and places of historical and/or unique and significant architectural character was important. A structure is of significant historic value in its either architecture or relation to a prominent person in the history of Medway or the Commonwealth. The Town needs to be more pro-active in the preservation of these sites."

► 6. Efficiently deliver services (66)

This priority generalizes many specific and related municipal goals and strategies that pertain to the efficient delivery of municipal services, including interdepartmental communication and coordination, supporting municipal boards and committees, and aligning municipal services with community needs.

This quote from Natick's Comprehensive Master Plan is consistent with language used by many of the other plans for this priority: "As Natick's population changes, invest in facilities and staff that will provide services to meet residents' needs." Hingham's Master Plan Update provides the following perspective on the efficient delivery of services: "Clarify maintenance responsibilities for town-owned facilities, properties and recreational sites to ensure timely and cost-effective maintenance." Another perspective comes from Stoughton's Master Plan, "Departments should continue to find ways to enhance service and increase efficiency." The plan offers approaches to this priority, including "increasing opportunities for cooperation and collaboration..." and "establishing protocols for inter-department/board/committee coordination and communication."

▶ 7. Focus redevelopment (59)

This priority highlights directing growth and investment to specific locations in the municipality including concentrating development in existing commercial or industrial areas, clustering development near infrastructure, or locations that would strengthen smart growth in the community, and investing in underutilized properties, buildings, or districts.

This quote from Cambridge's Master Plan is consistent with language used by many of the other plans for this priority: "Promote redevelopment and/or rehabilitation of areas currently characterized by obsolete commercial buildings, surface parking lots, automobile-oriented patterns of development, and other development that is inconsistent with the city's urban design objectives." Boxborough's Master Plan provides the following quotes related to focused redevelopment: "Encourage economic development which will improve the quality of life for residents, such as supporting development of a village-like area with restaurants, pubs, shops, fitness and health services, and other amenities. ... Economic development will be focused in existing commercial areas." Another perspective can be found in Randolph's Comprehensive Master Plan: "To minimize the strain on environmental and municipal systems, new development should be located and concentrated to use existing infrastructure."

▶ 8. Produce affordable housing (53)

Housing affordability and rent-burdened households are recognized as an issue in many of the local plans. Increasing the supply of affordable housing is discussed by many of the plans as a way to address this issue through inclusionary zoning, other innovative zoning approaches, working with the municipal housing trust, or pursuing local initiative units. Other techniques to produce affordable housing include creating a municipal housing plan, or retaining housing stock that is currently affordable. Many plans relate discussion of housing affordability to Chapter 40B requirements and the subsidized housing inventory.

This quote from Hanover's Master Plan is consistent with language used by many of the other plans for this priority: "Support the creation of housing units that are affordable to a broad range of incomes, including both rental units and owner units. Identify locations to encourage development of diversified affordable housing opportunities including infill housing and adaptive reuse of any abandoned, underutilized, or obsolete property." Another perspective is in Melrose's Community Vision and Master Plan: "Encourage the creation of housing units that are affordable to a broad range of incomes. Promote regulations that permit a variety of residential types, ensuring Melrose residents of all ages and incomes can remain in Melrose. Identify opportunities where the City will encourage new housing affordable to a broad range of incomes."

► 9. Improve transit (51)

Regardless of the level of public transportation service in a community, many local plans identified improvement of public transit as a priority. This improvement was typically linked to the type of existing transit services and may include improvements to commuter rail, better bus and shuttle connections to activity centers or transit stations, or improved subway service. Even communities with limited public transit options outlined strategies for increasing public transit options. Most of the priorities recognize that the municipality is not responsible for the transit system, but focus on the responsibility for advocacy around the desired improvements.

This quote from Woburn's Master Plan is consistent with language used by many of the other plans for this priority: "Improve access to transit. Study and establish a shuttle service between Anderson RTC and major employment areas. Investigate feasibility of establishing or partnering with a transportation management organization or association. Construct a footbridge between Anderson RTC and Merrimac Street. Improve bus stops." There is another perspective in Peabody's Downtown Brownfield Revitalization and Economic Development Plan: "Encourage expanded utilization of bus transit and improve existing facilities" and "Explore the Feasibility of Trolley Line or Light Rail to Salem Station."

► 10. Improve communication and engagement (50)

This priority focuses specifically on communication from and within the municipality, and engagement between the municipality and its citizens. Many plans highlight priorities to improve communication and coordination between departments, boards, and committees as well as between the municipal government and its citizens. Improving engagement is focused on broadening and deepening citizen participation in governance and improving the transparency of decision-making processes.

This quote from Manchester's Master Plan is consistent with language used by many of the other plans for this priority: "... the working together theme as being an important key to helping the town and its residents identify issues, share information, work through making decisions in a transparent manner, and find ways to keep people involved with the town governance, planning, and initiatives ... importance of improving communications and coordination to create efficiency and improve the decision making process." Another perspective comes from Duxbury's Draft Master Plan: "Prioritize effective communication and collaboration within town government and with the public. ... Clarify roles and responsibilities between boards, committees, and professional staff. ... Continue to disseminate important information through a variety of channels and refine outreach strategies when appropriate."

► 11. Expand housing type diversity (46)

A majority of the housing stock in many of the region's municipalities is resident-owned single family homes. A priority defined as expanding housing type diversity is focused on providing housing different from

single family homes. This may be achieved through different housing types (townhouses, apartments, micro-housing units), differences in size of housing (tiny houses and accessory dwelling units), or different housing tenure (rental versus owned). Many municipalities have identified that not enough of these other types of housing are available in their community.

The following quotes from Bellingham’s Master Plan are consistent with language used by many of the other plans for this priority, “(T)he town may need additional smaller housing, attached or multi-family units as older residents often prefer smaller units with lower costs and maintenance responsibilities. ... More variety is needed to meet the needs of older residents, smaller households and lower-income households. ... Different types of housing, such as smaller homes or apartments, can provide diverse housing for residents other than families.” Another perspective appears in Cohasset’s Draft Master Plan identifying the “need for more housing options in Cohasset, whether that be increased affordability, additional rental opportunities, more housing appropriate for smaller households, or more options for seniors.”

▶ 12. Coordinate regionally (46)

More than two-thirds of the municipal plans refer to the priority of coordinating regionally to address issues that extend beyond the boundaries of a single city or town. Many of these topics included addressing issues with the transportation system connections across municipal boundaries, the economic development and housing market dynamics that are not constrained to municipal borders, or leveraging additional resources that cannot be offered by a city or town alone. MAPC provides support for this regional coordination and connects municipalities through partnerships such as the Metro Mayors Coalition, the Subregional Meetings, coalitions such as the Mystic River Watershed, or shared issues and topics such as suburban mobility improvements.

This quote from Stow’s Master Plan Update is consistent with language used by many of the other plans for this priority, “Plan regionally: Where possible, coordinate intermunicipal and regional planning to produce better outcomes that recognize that economic development, water, transportation, and housing are regional in nature; they don’t stop at the Town boundary.” Another perspective is in Foxborough’s Master Plan: “Foxborough needs working relationships with [regional and state entities] to partner on economic development initiatives and to leverage its limited staff and volunteer leadership resources.” The Swampscott Master Plan highlights the importance of regionalization of critical services, such as Police and Fire Departments, where “efficiency can be improved upon through regionalization of some services.” It goes on to say, “Both departments have some shared dispatch services with the City of Lynn and access to Lynn’s lockup for the police and police are looking to continue regionalization, the Town is a member of regional law enforcement councils.”

▶ **13. Encourage sustainable development (43)**

More than half of the plans highlight the need for investments in new and existing buildings and sites to follow best practices that have been established for sustainable development. The priority applies to both municipal facilities and private facilities. Many municipalities position public investments as a way to lead by example and encourage similar private commitments to sustainable development; or to encourage new incentives or regulations that would encourage sustainability.

This quote from Wellesley’s Unified Plan is consistent with language used by many of the other plans for this priority: “Promote green and sustainable building practices in the private sector through the Town’s development standards.” Marshfield’s Master Plan says, “Lead by example in community facilities and operations by establishing sustainability principles and initiatives.”

▶ **14. Collaborate with partners (43)**

This priority highlights the need for effective partnerships between the municipality and an external entity. Many plans call for public-private partnerships between the municipality and businesses, institutions or non-profits; and for the collaboration to be around a specific topic, such as development, privatization of services, public safety, support services, or housing. Some partnerships refer to a specific stakeholder, such as the U.S. Air Force, when such an entity is present in the community. Several of the priorities discussing partnerships are focused on partnering with the community through engagement with specific stakeholder groups, leveraging the collaborative efforts of citizens, or partnering with local nonprofits to leverage action in a specific area of focus.

The City of Boston’s Master Plan discusses expanding partnerships as part of several priorities. Several examples from this plan include a broad range of collaboration with partners, including: “Encourage partnerships among district, charter, religious and independent schools. ... A collaborative waterfront is planned ... through partnership with relevant jurisdictions. ... We will support and coordinate with nongovernmental organizations as well as religious and community organizations that strengthen community fabrics and break the cycle of violence.” Another perspective is provided by Lincoln’s Master Plan: “Maintain communication with non-profit organizations and institutions in Lincoln in order to integrate their long-range plans with the town’s plans.” The plan continues to call for “establishing regular meetings between non-profits and other governmental agencies with a working group of town officials ...” and that “many local cultural organizations cite needs for improved communication with each other, the town, and the public.”

▶ **15. Address traffic congestion (42)**

The only surprise to many drivers is that this is not higher on the list of priorities. Since the previous regional plan in 2008, traffic congestion has become an even more common occurrence and issue. Two-thirds of the

plans that were reviewed identified addressing traffic congestion as a major priority. While the issue is easy to recognize, the solutions were not as resoundingly identified. Options ranged from improving roadway efficiency, strengthening alternatives to driving, and reducing the need for auto trips, among others.

This quote from Arlington’s Master Plan is consistent with language used by many of the other plans for addressing “significant traffic congestion” as a priority. “Manage congestion safely and efficiently by improving traffic operations.” A very straightforward statement that is difficult to achieve. Another perspective comes from the Town of Sherborn’s Master Plan: “[O]ptimize traffic safety for all users on primary, secondary, and tertiary roads throughout town.” The plan continues with a more specific priority to “invest in a traffic study to identify ways to facilitate the flow of traffic.”

► **16. Protect water sources and quality (40)**

The protection of water sources and quality in this priority broadly covers surface water features (coastal municipalities, lakes, ponds, rivers) and drinking water sources (wells, aquifers, reservoirs) in the region. Those features are associated with municipal concerns for contamination from wastewater, untreated stormwater runoff, pesticides, herbicides, or other development impacts.

The Town of Dover’s Master Plan is consistent with language used by many of the other plans for this priority and covers the range of priorities that are typically emphasized including “preserve and protect the groundwater water supplies. ... [S]trictly enforce regulations to guard against any commercial activity which would adversely affect Dover’s aquifer and endanger our water supply. ... [C]ontinue to research methods, policies, and regulations to reduce the use of chemical fertilizers, pesticides, and road salt.” Another perspective is in Acton’s Master Plan. “Protecting its water resources ... avoiding the need to later remediate impacts to the Town’s drinking water. ... [C]onsider a sewer extension and/or advanced package wastewater treatment with groundwater recharge in order to ... better manage wastewater in West Acton.”

► **17. Encourage commercial growth (40)**

This priority is most often associated with a two commonly shared and related perspectives. First, commercial growth is typically encouraged in a targeted area that has been previously developed with some commercial uses or is a historic center of commercial activity. Second, the encouraged commercial growth is often associated with a discussion of tax benefits to the municipality.

This quote from Bedford’s Master Plan is consistent with language used by many of the other plans for this priority. “... its employment and business base still needs to expand to stabilize the residential tax burden. ... [A] strong employment base and property tax revenues are essential.” From Beverly’s Strategic Plan for Downtown: “Strengthen Cabot Street’s role

as a commercial center for the community, colleges, and tourists. Cabot Street has historically served as Beverly’s primary commercial corridor, and many of the key components that made it a strong, community-serving commercial corridor are still in place and can be augmented with new businesses.”

► **18. Protect natural resources (36)**

This priority is similar to the priority of protecting water sources and quality, but expands to include other natural resources, and focuses on natural features, scenic views, and wildlife habitats. The natural resources generally include wetlands, forests, water features, open spaces, and conservation lands.

This quote from Wilmington’s Open Space and Recreation Plan is consistent with language used by many of the other plans for this priority: “[P]rotect the Town’s natural resources and open space areas that support water protection, flood management and essential wildlife habitat ecosystems.” As is this, from Lincoln’s Master Plan: “Save natural landscapes and farms, protect wetlands and water supplies, and preserve scenic views. ... [S]aving land from development is only one aspect of stewardship. Like any other asset, land needs to be managed. ... It takes a culture of public responsibility, effective regulations and enforcement, and stewardship to ensure high quality land and water resources and plentiful wildlife habitat.”

► **19. Improve walkability (34)**

Improving the ability to walk between destinations or as a primary way of getting around is identified as a priority in more than half of the plans reviewed. This priority is typically associated with a specific location in the municipality and is often associated with a compact area that is active with a variety of uses or desirable destinations, including open space or recreation activities.

This quote from Reading’s Economic Development Action Plan is consistent with language used by many of the other plans for this priority: “[E]nhance walkability and connectivity within and between the priority redevelopment areas (PDAs). ... Make infrastructure investments that will create a safe and welcoming pedestrian environment between the PDAs and between the PDAs and the Commuter Rail station.” Reading’s Bicycle Network and Pedestrian Priority Plan emphasizes the need to “prioritize sidewalk investments proactively – the Town should review its approach to prioritizing sidewalk construction and repairs. One consideration for prioritizing sidewalk construction and improvements could be the Neighborhood Walks Map.” The Town of Ashland’s Master Plan says, “[C]reate sidewalk connectivity and linkages between neighborhoods and key amenities. ... [S]trengthen existing commercial/shopping plaza nodes on Route 126 by adding new uses, enhancing walkability and adding open space and landscape amenities.”

► 20. Expand recreation and programs (34)

A complement to priorities related to conservation and preservation of open space, this priority's focus was to provide facilities, improvements, and programs to activate the natural and recreational assets that a municipality has available.

This quote from Hopkinton's Master Plan is consistent with language used by many of the other plans for this priority. "Provide a balanced recreation program that meets the growing needs of the community. ... Demands for active and passive recreation have changed with household and population growth, and the Town has at times found it difficult to accommodate them." Burlington's Master Plan frames the priority in a similar way: "Provide diverse recreational opportunities including both passive and active recreation. ... [while] looking for more organized recreational facilities and more access to communal open spaces. ... [to provide] equal access to a variety of opportunities for physical exercise and social gathering. ... [In response to the] greater demand on the [Parks & Recreation] department ... provide more [facilities and programs]."

Below is a simplified list of the same 20 local planning priorities that were most frequently identified in the local plans reviewed.

1. Improve multimodal connections (94)
2. Preserve and manage open space (88)
3. Encourage revitalizing investment (82)
4. Invest in facilities and property (73)
5. Preserve history (66)
6. Efficiently deliver services (66)
7. Focus redevelopment (59)
8. Produce affordable housing (53)
9. Improve transit (51)
10. Improve communication and engagement (50)
11. Expand housing type diversity (46)
12. Coordinate regionally (46)
13. Encourage sustainable development (43)
14. Collaborate with partners (43)
15. Address traffic congestion (42)
16. Protect water sources and quality (40)
17. Encourage commercial growth (40)
18. Protect natural resources (36)
19. Improve walkability (34)
20. Expand recreation and programs (34)

Exemplar Plans

Considering the Top 20 priorities that have emerged from this research, it is interesting to reflect on the collection of plans that were reviewed and identify those that showcase many of these most common priorities. Below is a list of the plans reviewed from each subregion that includes the most common priorities identified. The list is in descending order for the number of Top 20 priorities that are highlighted in the plan, starting with Arlington, who's Master Plan integrated and featured all 20 of the mostly frequently highlighted shared priorities. The number of top priorities found within each plan are included after the municipality and subregion abbreviation.

- ▶ Arlington, ICC, (20 of 20)
- ▶ Lincoln, MAGIC, (19 of 20)
- ▶ Burlington, NSPC, (18 of 20)
- ▶ Framingham and Southborough, MetroWest, (17 of 20)
- ▶ Hopkinton, SWAP, (17 of 20)
- ▶ Stoughton, TRIC, (17 of 20)
- ▶ Marshfield, SSC, (16 of 20)
- ▶ Swampscott, NSTF (15 of 20)

The Top 5 Local Planning Priorities by Theme

When classified into the preliminary planning themes, or categories, used to organize research and information at the beginning of the MetroCommon process, additional priorities rise to the top of the lists. The preliminary planning themes include “Equity of Wealth and Health,” “Climate Mitigation and Resiliency,” “Homes for All,” “Inclusive Growth and Mobility,” and “Dynamic and Representative Government.” An “Open Topic” category was also added for local planning priorities that did not match one of the theme categories. As the local plans were reviewed, the themes were helpful in classifying and organizing information. These preliminary planning themes were determined independent of this research and were not based on the local plans review.

Classifying the information into themes presents an opportunity for comparison of the thematic priorities of the local plans. The highest priorities, based on frequency and prevalence in the local plans, fall under the “Inclusive Growth and Mobility” theme. These are mostly smart growth topics, and express priorities relating to the physical environment, infrastructure, mobility, and development patterns. The next highest priorities fell under the “Climate Mitigation and Resiliency” and “Dynamic and Representative Government” themes. The themes with the lowest level of priorities but with significant representation in the reviewed plans, based on frequency and prevalence in the local plans, fell under “Homes for All” and “Equity of Wealth and Health.”

In addition to providing these insights into the themes of overall priorities, the set of 25 local plan priorities organized by theme reveal differences from the overall set of the Top 20 Overall Local Planning Priorities. New priorities not previously

shown in the list of Top 20 emerge in this listing. This sorting by theme categories also highlights the finding of higher priorities clustering under certain themes. In the “Open Topic” category, the priorities are focused on preservation, events, programming, and arts and culture.

▶ **Equity of Wealth and Health**

1. Provide economic development resources (32)
2. Improve public health and safety (31)
3. Support education programs (25)
4. Support small businesses (25)
5. Expand local job opportunities (23)

▶ **Climate Mitigation and Resiliency**

1. Preserve and manage open space (88)
2. Encourage sustainable development (43)
3. Protect water sources and quality (40)
4. Protect natural resources (36)
5. Reduce and manage energy use (32)

▶ **Homes for All**

1. Produce affordable housing (53)
2. Expand housing type diversity (46)
3. Preserve housing and character (28)
4. Concentrate location of housing investment (28)
5. Expand housing resources (26)

▶ **Inclusive Growth and Mobility**

1. Improve multimodal connections (94)
2. Encourage context appropriate development (82)
3. Focus redevelopment (59)
4. Improve public transit (51)
5. Address traffic congestion (42)

▶ **Dynamic and Representative Government**

1. Invest in facilities/property (73)
2. Efficiently deliver services (66)
3. Improve communication and engagement (50)
4. Coordinate regionally (46)
5. Collaborate with partners (43)

▶ **Open Topic**

1. Preserve history (66)
2. Expand recreation and programs (34)
3. Encourage arts and culture (28)
4. Preserve community character (26)
5. Protect rural features (13)

All Local Planning Priorities Identified by Theme

The previous list of local priorities by theme included only the Top Five for each category of preliminary planning themes. Below is a list of all local plan priorities organized by the same theme categories.

► Equity of Wealth and Health

1. Provide economic development resources (32)
2. Improve public health and safety (31)
3. Support education programs (25)
4. Support small businesses (25)
5. Expand local job opportunities (23)
6. Encourage diversity (21)
7. Support senior populations (14)
8. Support workforce development (14)
9. Grow innovation/creative economy (13)
10. Improve services (12)
11. Improve accessibility (10)
12. Support local businesses (10)
13. Strengthen tax base (9)
14. Support home occupations (7)
15. Strengthen community (3)
16. Improve access to healthy food (2)
17. Strengthen social equity (2)

► Climate Mitigation and Resiliency

1. Preserve and manage open space (88)
2. Encourage sustainable development (43)
3. Protect water sources and quality (40)
4. Protect natural resources (36)
5. Reduce and manage energy use (32)
6. Raise environmental awareness (29)
7. Prepare for climate change (27)
8. Manage surface water (22)
9. Protect wildlife (19)
10. Increase renewable energy use (18)
11. Increase open space access (15)
12. Protect air quality (14)
13. Improve infrastructure (12)
14. Protect and care for trees (10)
15. Reduce and manage waste (10)
16. Increase sustainability of facilities (9)
17. Protect coastal areas (9)
18. Promote sustainable farming (8)

▶ Homes for All

1. Produce affordable housing (53)
2. Expand housing type diversity (46)
3. Preserve housing and character (28)
4. Concentrate location of housing investment (28)
5. Expand housing resources (26)
6. Increase senior housing (22)
7. Support vulnerable populations (17)
8. Preserve affordable housing (14)
9. Increase housing supply (12)
10. Promote mixed-use housing (11)
11. Improve housing quality (10)
12. Expand special needs housing (10)
13. Allow accessory units (9)
14. Align zoning (8)
15. Promote homeownership (7)
16. Continue public outreach (7)
17. Develop multifamily housing (6)
18. Work with housing partners (5)
19. Attract new residents (4)
20. Control housing production (4)
21. Promote walkable housing (3)
22. Increase rental housing (3)

▶ Inclusive Growth and Mobility

1. Improve multimodal connections (94)
2. Encourage context-sensitive development (82)
3. Focus redevelopment (59)
4. Improve public transit (51)
5. Address traffic congestion (42)
6. Encourage commercial growth (40)
7. Improve walkability (34)
8. Align zoning approaches (34)
9. Address parking (32)
10. Improve streetscapes (27)
11. Encourage mixed-use development (25)
12. Encourage sustainable growth patterns (20)
13. Attract investment (20)
14. Encourage bicycling (19)
15. Balance growth and impacts (18)
16. Encourage transit-oriented development (16)
17. Implement complete streets (14)
18. Mitigate technology impacts (14)
19. Encourage retail and restaurant growth (13)
20. Improve roads (11)
21. Increase infrastructure capacity (11)
22. Reuse remediated sites/brownfields (7)
23. Encourage reuse and redevelopment (4)

► **Dynamic and Representative Government**

1. Invest in facilities/property (73)
2. Efficiently deliver services (66)
3. Improve communication and engagement (50)
4. Coordinate regionally (46)
5. Collaborate with partners (43)
6. Strengthen finances (24)
7. Support staff resources (20)
8. Improve technology (12)
9. Align regulations (11)
10. Seek alternative funding (11)
11. Coordinate long term (7)
12. Promote public awareness of resources (7)

► **Open Topic**

1. Preserve history (66)
2. Expand recreation and programs (34)
3. Encourage arts and culture (28)
4. Preserve community character (26)
5. Protect rural features (13)
6. Promote and manage tourism (9)
7. Maintain or improve aesthetics (4)
8. Promote coastal improvements (2)
9. Reinforce high quality of life (2)

The Top 5 Local Planning Priorities by Subregion

The distribution of the master plans reviewed across the region allowed a categorization of the results by subregion to review geographic differences or similarities across the eight subregions that comprise the region. The top 5 priorities for each subregion are shown below.

► **Inner Core Committee (ICC)**

1. Improve multimodal connections (19)
2. Encourage context-sensitive development (17)
3. Preserve and manage open space (15)
4. Preserve history (15)
5. Improve communication and engagement (13)

► **MetroWest Regional Collaborative (MetroWest)**

1. Improve multimodal connections (17)
2. Efficiently deliver services (15)
3. Focus redevelopment (10)
4. Preserve and manage open space (9)
5. Encourage commercial growth (8)

▶ **Minuteman Advisory Group on Interlocal Coordination (MAGIC)**

1. Invest in facilities/property (18)
2. Improve multimodal connections (16)
3. Improve public transit (16)
4. Preserve and manage open space (15)
5. Focus redevelopment (15)

▶ **North Shore Task Force (NSTF)**

1. Preserve and manage open space (11)
2. Improve multimodal connections (9)
3. Attract investments (7)
4. Preserve history (6)
5. Improve walkability (5)

▶ **North Suburban Planning Council (NSPC)**

1. Improve multimodal connections (10)
2. Preserve and manage open space (10)
3. Produce affordable housing (7)
4. Invest in facilities/property (4)
5. Efficiently deliver services (4)

▶ **South Shore Coalition (SSC)**

1. Invest in facilities/property (13)
2. Reduce and manage energy use (12)
3. Preserve history (10)
4. Improve multimodal connections (9)
5. Improve communication and engagement (7)

▶ **South West Advisory Planning Committee (SWAP)**

1. Preserve and manage open space (9)
2. Coordinate regionally (8)
3. Encourage commercial growth (8)
4. Encourage sustainable development (7)
5. Preserve history (7)

▶ **Three Rivers Interlocal Council (TRIC)**

1. Preserve and manage open space (15)
2. Efficiently deliver services (14)
3. Encourage downtown investment (12)
4. Preserve history (10)
5. Invest in facilities/property (10)

The Top 5 Local Planning Priorities by Community Type

The distribution of the master plans reviewed across the region allowed a categorization of the results by community type to differences or similarities across the four generalized types of communities that comprise the region. The top 5 priorities for each community type are shown below.

▶ Inner Core

1. Improve multimodal connections (18)
2. Encourage context-sensitive development (17)
3. Preserve and manage open space (15)
4. Preserve history (12)
5. Invest in facilities/property (11)

▶ Regional Urban Centers

1. Produce affordable housing (10)
2. Preserve and manage open space (8)
3. Improve multimodal connections (8)
4. Efficiently deliver services (8)
5. Encourage context-sensitive development (7)

▶ Maturing Suburbs

1. Improve multimodal connections (45)
2. Preserve and manage open space (38)
3. Invest in facilities/property (35)
4. Preserve history (30)
5. Efficiently deliver services (30)

▶ Developing Suburbs

1. Preserve and manage open space (28)
2. Efficiently deliver services (25)
3. Improve multimodal connections (23)
4. Invest in facilities/property (23)
5. Focus redevelopment (21)

Full Listing of Local Plan Priorities

In addition to the top 20 priorities and the variety of ways that the top priorities can be sorted, this research produced a longer list of priorities that emerged through the review of local plans. Below is an uncategorized list of the local planning priorities identified. It includes 100 local planning priorities with the least frequently referenced at the bottom of the list.

1. Improve multimodal connections (94)
2. Preserve and manage open space (88)
3. Encourage context appropriate development (82)
4. Invest in facilities/property (73)
5. Preserve history (66)
6. Efficiently deliver services (66)
7. Focus redevelopment (59)

8. Produce affordable housing (53)
9. Improve transit (51)
10. Improve communication and engagement (50)
11. Expand housing type diversity (46)
12. Coordinate regionally (46)
13. Encourage sustainable development (43)
14. Collaborate with partners (43)
15. Address traffic congestion (42)
16. Protect water sources and quality (40)
17. Encourage commercial growth (40)
18. Protect natural resources (36)
19. Improve walkability (34)
20. Expand recreation and programs (34)
21. Align zoning approaches (34)
22. Provide economic development resources (32)
23. Reduce and manage energy use (32)
24. Address parking (32)
25. Improve public health and safety (31)
26. Raise environmental awareness (29)
27. Preserve housing and character (28)
28. Concentrate location of housing investment (28)
29. Encourage arts and culture (28)
30. Prepare for climate change (27)
31. Improve streetscapes (27)
32. Expand housing resources (26)
33. Preserve community character (26)
34. Support education programs (25)
35. Support small businesses (25)
36. Encourage mixed-use development (25)
37. Strengthen finances (24)
38. Expand local job opportunities (23)
39. Manage surface water (22)
40. Increase senior housing (22)
41. Encourage diversity (21)
42. Encourage sustainable growth patterns (20)
43. Attract investment (20)
44. Support staff resources (20)
45. Protect wildlife (19)
46. Encourage bicycling (19)
47. Balance growth and impacts (18)
48. Increase renewable energy use (18)
49. Support vulnerable populations (17)
50. Encourage transit-oriented development (16)
51. Increase open space access (15)
52. Protect air quality (14)
53. Support senior populations (14)
54. Support workforce development (14)
55. Preserve affordable housing (14)

56. Implement complete streets (14)
57. Mitigate technology impacts (14)
58. Grow innovation/creative economy (13)
59. Encourage retail and restaurant growth (13)
60. Protect rural features (13)
61. Improve services (12)
62. Improve infrastructure (12)
63. Increase housing supply (12)
64. Improve technology (12)
65. Promote mixed-use housing (11)
66. Improve roads (11)
67. Increase infrastructure capacity (11)
68. Align regulations (11)
69. Seek alternative funding (11)
70. Improve accessibility (10)
71. Protect and care for trees (10)
72. Reduce and manage waste (10)
73. Support local businesses (10)
74. Improve housing quality (10)
75. Expand special needs housing (10)
76. Strengthen tax base (9)
77. Increase sustainability of facilities (9)
78. Protect coastal areas (9)
79. Allow accessory units (9)
80. Promote and manage tourism (9)
81. Promote sustainable farming (8)
82. Align zoning (8)
83. Support home occupations (7)
84. Promote homeownership (7)
85. Continue public outreach (7)
86. Reuse remediated sites/brownfields (7)
87. Coordinate long term (7)
88. Promote public awareness of resources (7)
89. Develop multifamily housing (6)
90. Work with housing partners (5)
91. Attract new residents (4)
92. Control housing production (4)
93. Encourage reuse and redevelopment (4)
94. Maintain or improve aesthetics (4)
95. Promote walkable housing (3)
96. Increase rental housing (3)
97. Strengthen community (3)
98. Improve access to healthy food (2)
99. Strengthen social equity (2)
100. Promote coastal improvements (2)

Methodology

What is the local priorities and themes review?

This local priorities and themes review looked at what individual municipalities in the region most value. Priorities and themes are inherent in the programs and policies advanced by cities and towns, in the way they direct and shape investments, and in the actions they choose to undertake; but that indirect expression is difficult to quantify and analyze. However a more overt definition of priorities and themes is available in the planning documents that a municipality has produced. This review, then, is a compilation of local priorities and themes as set forth in the planning documents the municipalities themselves have created.

What is the context for this work?

This review is part of MetroCommon 2050, Greater Boston's next long-range regional plan. MetroCommon plan will let those of us who live, work, and play here imagine and create the common future we want – together. The first phase of the development of MetroCommon is visioning. During this phase, we are asking a wide range of people throughout the region – including state and local leaders, residents, and commonly underrepresented groups – what they want for the future of Greater Boston. This review complements those conversations. Examining local plans reveals shared themes: these commonalities will be the basis for MetroCommon's goals.

Why review local plans?

During the process design phase, the plan's External Advisory Committee (EAC) and others pointed to the importance of building on the wealth of available local planning knowledge and information that is available. The advice followed the rationale that in order for the regional plan update to be both efficient and effective, it must leverage the time, expertise, and effort already expended at the local level and capture the good ideas that have already been discussed and supported in the communities. In order to do this, a process for review, compilation, and reflection on local planning efforts needed to be devised. This local priorities and themes review is the outcome of that effort.

What is the best type of local plan to review?

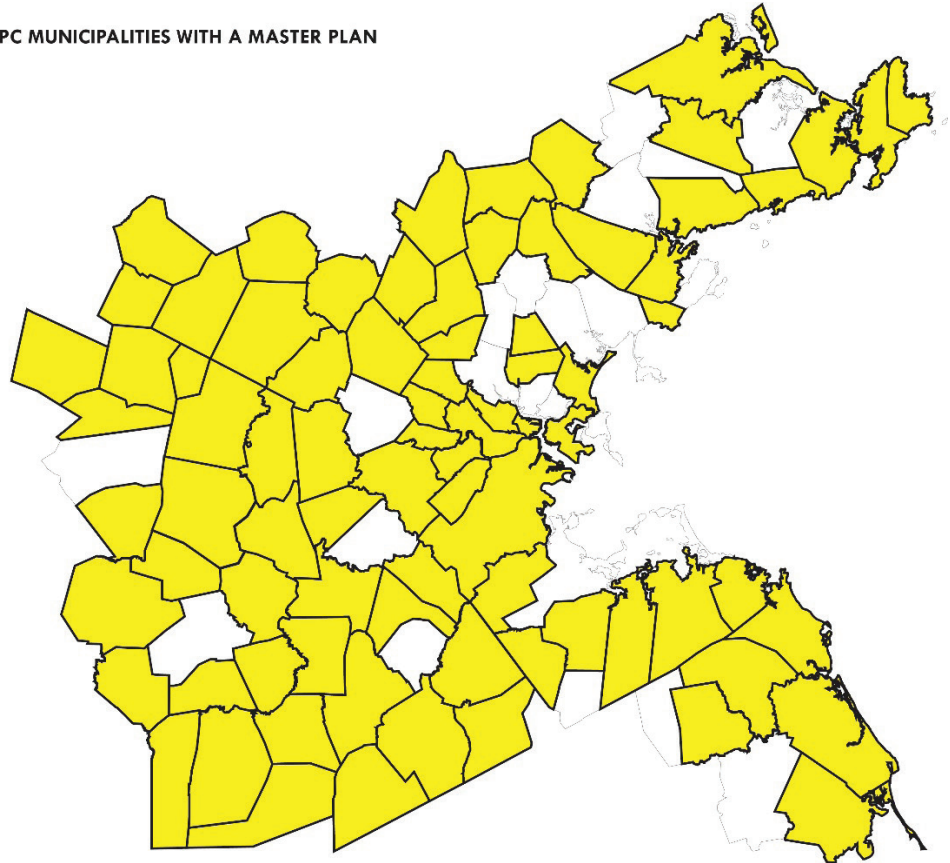
As a first step, MAPC inventoried the types of local plans available in the region. We found the following types: comprehensive/master plans, open space and recreation plans, housing plans or housing production plans, community block grant consolidated plans, hazard mitigation or climate adaptation plans, local capital improvement plans, economic development plans, district or neighborhood plans, public health plans, arts and culture plans, historic preservation plans, municipal harbor plans, and other plans specific or unique to a municipality.

For ease of compilation and comparison, and in order to make common threads and priorities easier to spot, MAPC set out to find a common plan type that would offer the most comprehensive and comparable representation of local priorities and themes. A clear candidate for a comprehensive type of plan is the municipal master plan. Municipal master plans are defined by Massachusetts General Law as comprehensive and consistent products. Chapter 41 Section 81D defines that they

shall include the following elements: goals and policies statement, land use plan element, housing element, economic development element, natural and cultural resources element, open space and recreation element, services and facilities element, circulation element, and implementation program element.

By far the most commonly available type of plan across the region is the master plan. The figure below shows every MAPC community that has completed a master plan. A total of 77 municipalities have completed master plans, representing 76% of the municipalities in the region.

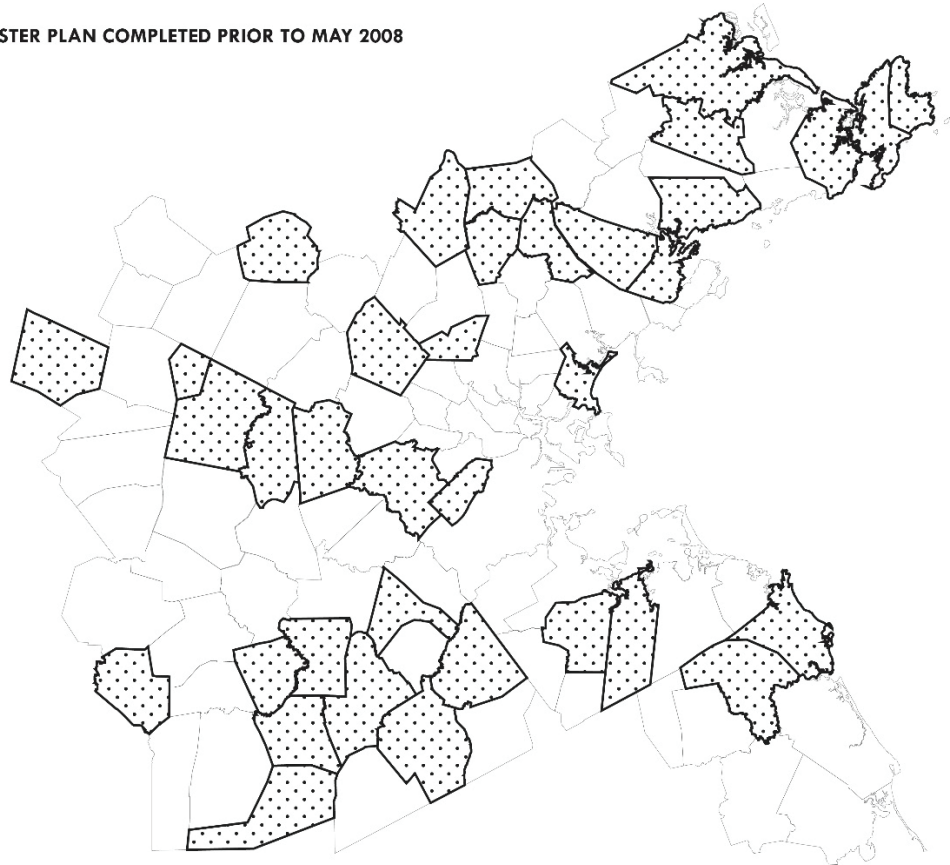
MAPC MUNICIPALITIES WITH A MASTER PLAN



How were plans selected for review?

MetroCommon is a regional plan update of the previous regional plan, MetroFuture. MetroFuture was completed in May 2008. Part of that previous process was the review of all available Master Plans from the MAPC region, and that review formed the foundation of MetroFuture. Therefore, May 2008 was used as a threshold to qualify plans for review for the regional plan update. The 26 plans completed prior to May 2008 were not reviewed. Those plans are shown below.

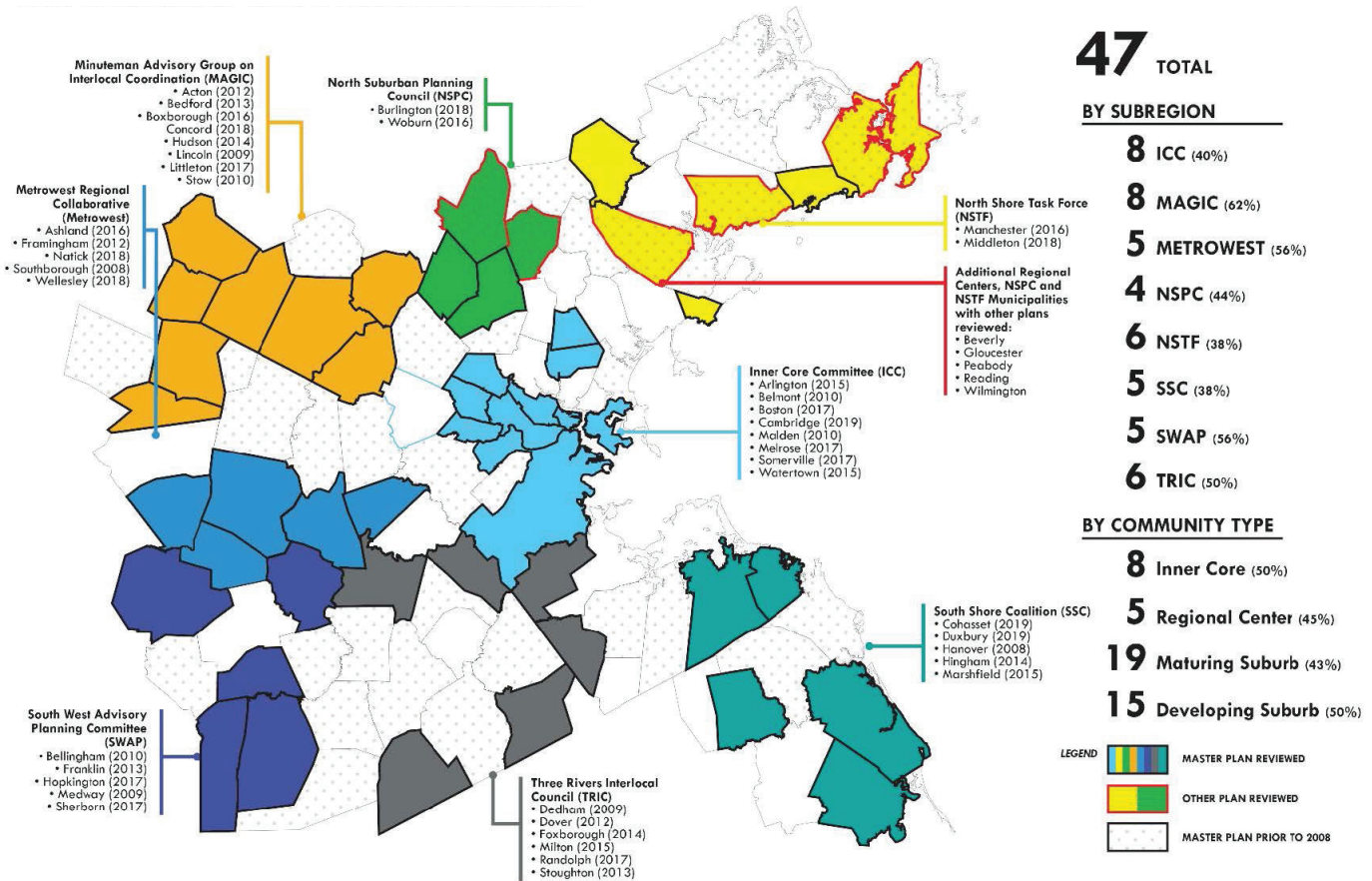
MASTER PLAN COMPLETED PRIOR TO MAY 2008



MAPC then looked at the 42 master plans completed since May 2008 and the distribution of those plans around the region to better understand how representative this sample of plans would be of the region. In order for the local plan review to offer compiled priorities and themes relevant to the entire region it was important that the plans represent the diversity of the region's municipalities. The diversity of the sample of plans was measured across both MAPC Subregions and MAPC community types.

Each of the eight subregions (Inner Core Committee, MetroWest Regional Collaborative, Minuteman Advisory Group on Interlocal Coordination, North Shore Task Force, North Suburban Planning Council, South Shore Coalition, South West Advisory Planning Committee, and Three Rivers Interlocal Council) in the MAPC region includes at least four municipalities that have plans reviewed that were developed since 2008. Each of the four community types (inner core, regional center, maturing suburb, developing suburb) in the MAPC region includes at least five plans reviewed that were developed since 2008.

To improve our sample, MAPC identified five additional communities that didn't have recently completed master plans, but did have other post-2008 complementary plans types (housing plan, opens space plan, economic development plan, etc.). When these were added to the sample, these plans improved the representation of subregions and community types. In total, 47 municipality's plans were included in this review.



How were the plans reviewed?

MAPC designed the local plans review to use a consistent and methodical approach to identifying shared themes and priorities. MetroCommon will look at many topics that overlap directly with the topics included in town- and city-wide master plans.

The plan review was based on a Microsoft Excel template that provided categories for the sorting of information by the regional plan update topics. The topic categories included the most pressing issues concerning the region: equity of wealth and health, climate mitigation and resiliency, housing, growth and mobility, and dynamic, inclusive, and collaborative governance. In addition to these categories of topics, the review template included an open topic for themes that did not fit into one of the others. The review template was divided into two separate sets of information. The sorting of vision statements by regional plan update topics and the sorting of the body of the plan document occurred

separately. Each plan reviewed has a sorted summary template that distills a hundred or more pages into a few pages of rows of quotes with the supporting information outlined above.

The review methods have involved gathering all plan documents in PDF formats. Assessing the outline and content of the plan by quickly reviewing the table of contents and scrolling through the plan document. Determining the most effective approach to filtering the plan into the template, including which sections to focus on for review. Each plan was read to identify the priorities that were most frequently referenced in the document. Those priorities were copied as quotes from the plans into a spreadsheet. The content of each master plan reviewed was sorted into this template using quotes from the plan to describe the priority. A shorthand description of the priority was added in line with the quote with the plan source and page reference for the quote. The line also includes tags for the municipality, the Subregion, and the community type for the tracking and sorting of information. The frequency of references to the same idea later in the plan document are also tracked.

This process was repeated for each plan reviewed to create a substantial database of plan priorities that were represented by plan quotes and tagged with other information to make the plan information sortable. The plan compilation process combined all summary templates into a single spreadsheet for each regional plan update topic. The same or similar quotes were then grouped together. These groups were then given a summary phrase that captures the basic theme. Each plans summary rows were organized into these growing sets of themes or created a new theme if they were not the same or similar to one already established. Once all rows of themes had been sorted in this compiled set of the themes, the number of rows for each compiled theme were counted to assign a frequency and priority for that theme. Additional frequency information was found in the frequency by document counts. The prioritized order of each theme is based on this ranking of frequency.

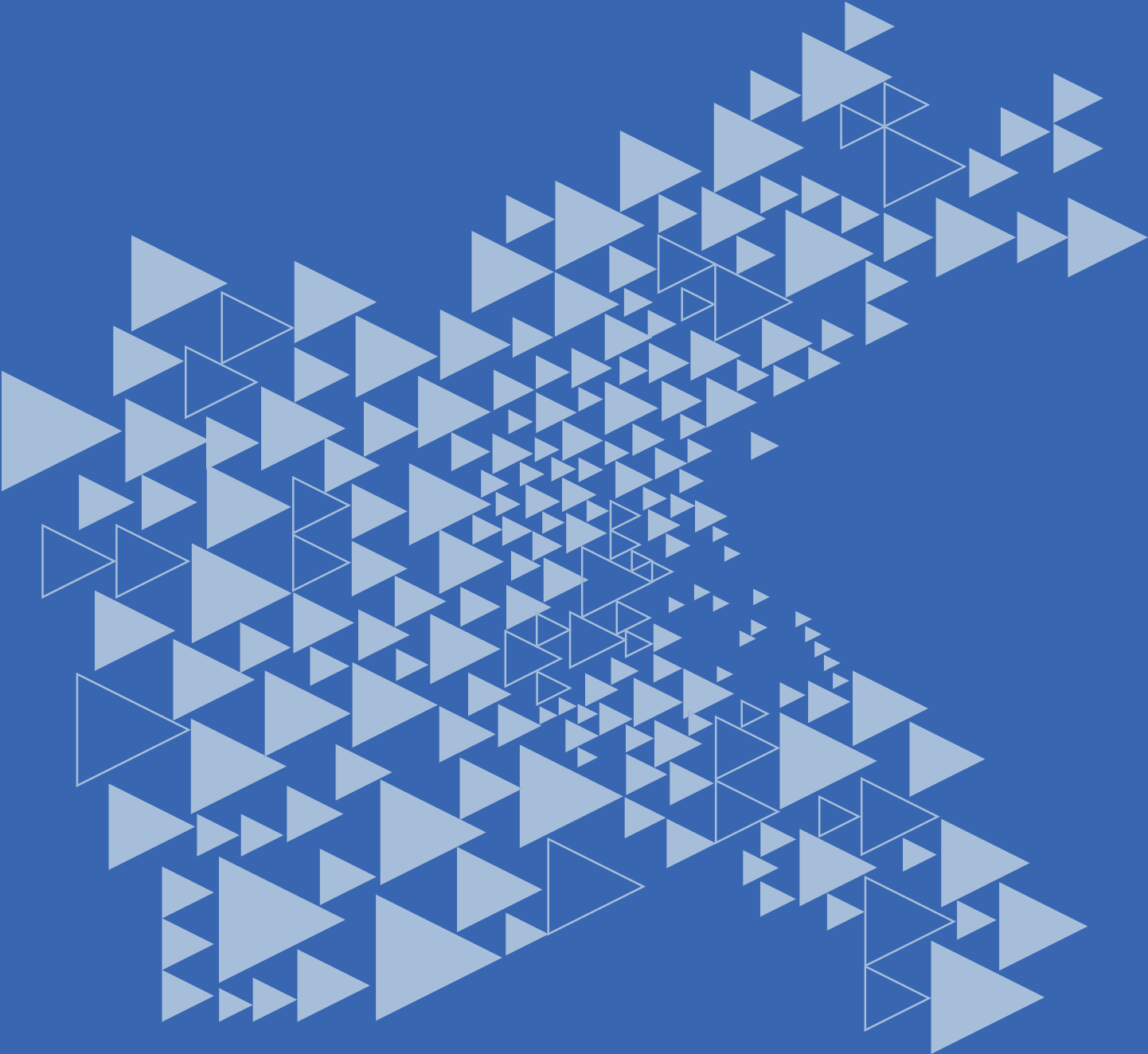
How will the local plans review be used?

The local priorities and themes review is an initial product of Phase 1 of the MetroCommon process. It is intended to provide a clearly documented review that directly connects shared themes and priorities back to local plan documents. The local plans review resulted in a list of priorities. These priorities were used as one of three primary inputs in the creation of the MetroCommon goals. The other two primary inputs were the previous regional goals of the MetroFuture plan and a compilation of the input received at Phase 1 listening sessions and subregional meetings.

The summary of local plans will bring forward past efforts in a way that can be more readily used in the regional planning process. The local plan review also highlights the language that local plans use to describe themes and priorities, and this review suggests language to use for framing regional themes and priorities, such that local municipalities can recognize their voice in the regional plan. These aspects of the local plan review will all be used in the initial phases of the MetroCommon process. The local plans review will also provide a useful database for use in later phases of the MetroCommon process. The database of local themes

and priorities enables a direct comparison between local planning and regional planning priorities once the regional priorities have been established. This database will be useful to determine the alignment of local and regional priorities and to offer guidance to how local themes and priorities could combine to support regional themes and priorities through priorities that have already been identified locally.

MetroCommon 2050
Review of Relevant Statewide and Multi-Jurisdictional Plans



Introduction

The Metropolitan Area Planning Council (MAPC) is currently developing MetroCommon x 2050 (MetroCommon), the next regional long-range plan for the Boston metropolitan area. The regional plan will address several action areas, including topics such as traffic congestion, the rising cost of housing, our changing climate, equity of wealth and health, and efficient government. The success of MetroCommon will rely on the coordinated efforts of innumerable stakeholders including local governments, state agencies, non-profits, businesses, institutions, and individual citizens, many of which have already completed planning efforts to guide their respective work.

It is critical to understand these existing planning efforts to fully illuminate the context and to build on that strong foundation for MetroCommon. As a first step, in the spring and summer of 2019, MAPC staff reviewed local master plans throughout the Boston metropolitan area for major themes and priorities to inform the development of MetroCommon. That research effort was used as one of the primary inputs for the development of provisional goals for MetroCommon. To complement the local plan research and to provide a more holistic understanding of the wealth of planning information that already exists, staff reviewed statewide and multi-jurisdictional plans and reports relevant to MetroCommon. The results of that document review are presented here.

Objective

The purpose of the Review of Relevant Statewide and Multi-Jurisdictional Plans for MetroCommon x 2050 is to compile and summarize the planning context for MetroCommon. In particular, this review identifies plans and proposals that plan for major investments, new infrastructure, or policies that may affect development patterns and trends in the region. This research helps ensure MetroCommon will be based on the most accurate forecasts of regional opportunities and needs; build off existing research and planning; and address gaps in planning for the future of the region.

Methodology

There are three main components of the review: the List of Relevant State and Multi-Jurisdictional Plans (List); the Relevant State and Multi-Jurisdictional Plan Summaries (Summaries); and the Findings and Conclusions. The List is an inventory of relevant plans, reports, and other documents based on preliminary research and discussions with MAPC department leads and the agency's knowledge of relevant plans in the region. The documents are organized by topic area and divided into plans considered likely to be most relevant to MetroCommon, or "primary," and those identified as "secondary." The Summaries contain a review of the "primary" documents in each topic area. For each review, there is a brief summary and discussion of the document's relevance to MetroCommon, as well as Detailed Review Findings of any regional challenges and opportunities, regional

interventions or solutions, and forces that will impact the future of the region that are identified in the plan. Most of these findings are copied directly from the respective plan or paraphrased for brevity. Finally, based on the Summaries, there is a discussion of Findings and Conclusions identifying the key themes reflecting on all of the documents reviewed including inconsistencies and gaps among the documents, and significant opportunities or threats identified in the documents.

For some of the “primary” documents, only draft versions are currently available. In addition, new plans and reports are continuously being released. Therefore, this review should be considered a living document that may require periodic updating.

Findings and Conclusions

It is important to note that the “primary” documents reviewed vary widely in their content, type of document, and the intended audience. These variations present difficulty when trying to compare them and draw conclusions. Some of the documents are research reports that present critical findings that will inform MetroCommon but that do not include new investments or policies (e.g. The Greater Boston Housing Report Card 2019). Some of the documents are statewide plans that are general to an issue area establishing policy priorities that will likely have substantial impacts on the region, but lack specific policy actions (e.g. Opportunities for All: The Baker-Polito Strategy and Plan for Making Massachusetts Great Everywhere). Others are agency-specific plans that program funding or promulgate policies for new infrastructure or investments (e.g. Focus 40: The 2040 Investment Plan for the MBTA). However, across the different documents, there are some key themes, inconsistencies and gaps, and significant opportunities or threats that should be considered in MetroCommon.

Key Themes

► Limited market rate and affordable housing supply

One of the major challenges facing the region is the lack of market rate and affordable multifamily housing options. As described in the Greater Boston Housing Report Card 2019: “Having failed to produce an adequate supply of housing for decades, the region is not prepared to accommodate the population growth that is being propelled by the current economic boom.” The Report Card describes the causes of this problem, many of which are related to the Commonwealth’s practice of “home rule.” Concentrated decision-making at the local level allows for self-interested land use planning and zoning. Without a stronger mechanism to bridge the gap between local land use authority with the region-wide problem, there is a disconnect between the potential solutions and the authority to advance those solutions.

The lack of housing supply has economic consequences, including burdening low-income and middle-income households, and it also has social consequences, including increasing racial segregation. Boston remains one of the most segregated of the nation’s 50 largest metropolitan areas. As described in the Report Card: “More affluent communities in Greater Boston

have zoning ordinances that effectively prohibit dense development. They often exclude the development of multifamily housing projects, and because of the connection between class and race, perpetuate current patterns of racial and income segregation.”

Fortunately, the opposite is also true: communities that permitted more multifamily housing units – production of single family units does not produce the same results – appear to have experienced greater reductions in segregation. To inform efforts to reform zoning, The State of Zoning for Multi-Family Housing in Greater Boston assesses local zoning in the Boston metropolitan area and finds that there has been an increase in mixed-use zoning as well as multifamily development in town and village centers. However, the local zoning approval process continues to be political and discretionary, and ultimately there is still very little land in the region zoned for multifamily residential use.

In addition to housing supply, the Report Card identifies two additional challenges: an affordable housing shortage and inequity in access to housing. To address the affordable housing shortage, the Report Card recommends preserving existing affordability, making more effective use of resources, and expanding inclusionary zoning bylaws. To promote equitable access to housing, the Report Card recommends expanding state housing finance programs and pursuing legal review and challenges to discriminatory zoning or permitting that are biased against rental housing for families with children, a practice that the State of Zoning report found to be very common.

► **Maintenance of aging infrastructure**

The plans for both transportation and utility infrastructure focus on maintenance of existing infrastructure and service, rather than expansion. As explained in the Draft Destination 2040: 2040 Long-Range Transportation Plan: “The region’s infrastructure is aging; the demands placed on highway and transit facilities have been taxing to the point that routine maintenance is insufficient to keep up with maintenance needs.” Therefore, Destination 2040 continues the previous plan’s focus on maintenance rather than major new capital projects. In fact, Destination 2040 allocates all the MBTA’s transit capital funding to system infrastructure maintenance, as well as accessibility improvements and system enhancements. That said, Destination 2040 also includes some major highway and street projects that will increase roadway capacity and likely induce more vehicle travel.

Similarly, the Water and Wastewater Systems Master Plan focuses on maintaining existing services. For example, more than 95 percent of \$3.17 billion needs estimated for all wastewater projects for the next 40 years are rehabilitation or replacements of existing infrastructure. The proportion of the estimated maintenance costs for the water system is lower, as a large amount of the water system costs will be spent on redundancy projects to improve the reliability and flexibility of the existing system.

► Need for further climate resiliency planning

Climate change is identified as a major challenge in most of the documents. Several of the documents describe the potentially disruptive impacts of climate change, including the specific projected impacts on the region and certain issue areas. In particular, the Hazard Mitigation and Climate Action Plan (SHMCAP) identifies the specific threats of climate change, including the projected changes to precipitation, sea level rise, temperature, and extreme weather in Massachusetts. However, the plans often identify the need for and recommend further resiliency planning at the local level to protect people, infrastructure, and services.

For example, the State Historic Preservation Plan describes that sea level rise and inland flooding threaten historical resources, and establishes a strategy to “Encourage vulnerability modeling, planning, policies, infrastructure, and regulations that will help protect significant historic resources from climate change, natural disasters, and human-made disasters.” Similarly, *Choices for Stewardship: Recommendations to Meet the Transportation Future* discusses the projected effects of climate change in the Boston region and on the transportation system and makes a recommendation to allocate funding to projects that are designed to be resilient. One of the suggested initial steps for the recommendation is: “Owners of transportation infrastructure and MPOs should integrate resiliency issues into its project prioritization, capital planning, and project development process.” The *Massachusetts’ Water Infrastructure: Towards Financial Sustainability* also notes the potential for climate-induced changes, but does not identify specific impacts or recommendations to prepare for them.

Fortunately, the Municipal Vulnerability Preparedness (MVP) program was developed to provide support for cities and towns to complete just this kind of local resiliency planning. Specifically, under the MVP, the Commonwealth awards communities with funding to complete vulnerability assessments and develop action-oriented resiliency. No documents about the MVP program were reviewed here.

There are a few important exceptions to this theme. On one side of the spectrum are the documents that do not even acknowledge the threat of climate change. For example, the *Age-Friendly Action Plan* and the *Massachusetts Sustainable Water Management Initiative* are silent on climate change. In contrast, there are plans that not only identify the expected impacts of climate change but also plan for resiliency. For example, the *State Wildlife Action Plan (SWAP)* incorporates the *BioMap2* tool, which was developed to protect the state’s biodiversity in the context of climate change, integrates adaptation and resiliency strategies into its models.

Inconsistencies and Gaps

► **Racial equity**

One inconsistency between the plans and reports is the consideration of racial inequity. For some of the reviewed documents, race is a major consideration of the plan priorities or report findings. For example, The Greater Boston Housing Report Card focuses on the connection between housing and racial segregation, describing Boston’s history of segregation, the effect of today’s land use regulations, and the impacts of segregation on access to opportunity. Similarly, the Local Food Action Plan acknowledges the differences in the food system based on race and income, including in rates of food insecurity and obesity. Opportunities for All: the Baker-Polito Strategy and Plan for Making Massachusetts Great Everywhere includes goals to improve equity along several demographics including race, as well as income, gender, and ability. For example, Opportunities for All seeks to support community-based entrepreneurship: “Support minority-, women-, and veteran-owned businesses through capital access and technical assistance programming.” In addition, the Statewide Comprehensive Outdoor Recreation Plan includes an objective to “Support the acquisition of land and development of new open spaces in areas that existing or useable open spaces, such as Environmental Justice neighborhoods.”

However, some of the documents neglect to consider the racial inequities plaguing the region. The Comprehensive Emergency Management Plan (CEMP) notes the federal civil rights law that requires nondiscrimination for certain populations, including on the bases of race, national origin, and sex, and states “considerations for individuals with disability and others with access and functional needs are integrated into the CEMP.” However, the CEMP is silent on how those needs are integrated and how equitable services will be reviewed and enforced.

► **Gaps in planning filled by MAPC: Housing, transportation sector emissions, and equity**

Likely, there are many issue areas that deserve greater attention, research, and planning in the Boston region than they are currently receiving. Three that stand out are: housing, transportation sector emissions, and equity – all of which are top priorities of MAPC and will likely be addressed in MetroCommon.

The two recent reports on housing reviewed here are powerfully informative; however, they lack policy commitments, investments, or specific housing plans. MAPC’s MetroFuture provided just such planning. Similarly, the Choices for Stewardship: Recommendations to Meet the Transportation Future report explains that although vehicle electrification is critically important to reducing transportation sector emission, other strategies are needed to reduce transportation sector emissions to meet the Commonwealth’s goal of reducing emissions 80 percent by 2050. The report makes recommendations for improving multimodal options and accessibility through sustainable land use, but according to this review of

plans and reports, there is no statewide or regional goal for transportation sector emissions reductions nor plan to meet that goal. MetroFuture established goals for vehicle miles traveled reductions and other sustainable transportation strategies.

In addition, none of the plans reviewed focused specifically on equity. However, MAPC's State of Equity for Metro Boston: Policy Agenda Update, which was not included in this review as it was authored by MAPC, seems to address this need.

► **Potential new issues on the horizon: climate refugees, tenant protections**

There were references to a couple of potential new challenges on the horizon that have not historically been prioritized in MAPC's regional planning.

One potential challenge is accommodating new residents and employees that have fled from severe weather or other destructive effects of climate change. For example, the Greater Boston Housing Report Card states: "Over the past decade, the number of homeless families in Greater Boston increased by 27 percent and the number of homeless individuals by 45 percent, with a spike in 2018 driven by an influx of displaced residents of Puerto Rico." However, there is no further discussion of meeting the needs of these new residents and future climate refugees.

Another potential challenge is residential and commercial displacement and the need for tenant protections. High rates of displacement and evictions in other hot real estate markets in the country might portend the same for the Boston metropolitan area. Recent discussions in the Massachusetts state house and the Boston City Council reflect the growing concern about residential displacement, yet none of the plans reviewed discuss tenant protections such as anti-eviction policy.

Significant opportunities/threats expected

► **Transportation and mobility technology and service innovations**

In many of the plans and reports, there is an expectation that new transportation technology and services, including autonomous vehicles, connected vehicles, Transportation Network Companies, and shared mobility will be "disruptive". However, there is great uncertainty about what the effects will be, and proposed actions focus on monitoring change rather than preparing for the innovations regardless of the uncertain impacts. For example, the 2040 Long-Range Transportation Plan identifies the following need in terms of safety and new transportation technology: "Monitor advancements in CAV [connected and autonomous vehicles] technology. Monitor and analyze safety impacts of CAV deployments, particularly in the Boston region."

▶ **MBTA's place-based investments**

One new opportunity comes out of the Massachusetts Bay Transportation Authority's (MBTA) new plan: Focus40. As explained in the plan: "Instead of starting with expansion project ideas, Focus40 is about identifying places that need and can support higher quality transit – Priority Place – and then working with local partners to develop projects to serve those places." This approach indicates an opportunity for greater coordination between transportation, land use, and housing planning, as well as for development in the specific places identified by MBTA, which are categorized by Major Employment Districts, Inner Core Communities Lacking Rapid Transit, and Urban Gateways.

List of Relevant State and Multi-Jurisdictional Plans

The plans, reports, and other documents and efforts that may be relevant to MetroCommon are listed below. They are organized by issue area and priority. Plans and reports were prioritized based on the potential of the document to influence development patterns, investments, and policy; the document's release date; and other factors. Plans and reports identified as "secondary documents" are not reviewed here, but they may be useful in informing the development of MetroCommon.

Climate Mitigation, Adaptation, & Resiliency Plans

▶ **Primary Documents**

MA Statewide Hazard Mitigation and Climate Adaptation Plan (SHMCAP)

- Cross-agency, 2018

▶ **Secondary Documents**

MA Climate Change Adaptation Report

- MA Energy and Environmental Affairs (EEA) and the MA Climate Change Adaptation Advisory Committee, 2011

MA Clean Energy and Climate Plan for 2020

- MA Energy and Environmental Affairs (EEA), 2015

MAGIC Climate Change Resilience Plan

- MAGIC Regional Council, 2017

Great Marsh Coastal Adaptation Plan

- Ipswich River Watershed Association, 2017

Economic Development

▶ **Primary Documents**

Opportunities For All: The Baker-Polito Strategy and Plan for Making Massachusetts Great Everywhere

- MA Executive Office of Housing and Economic Development, 2015

▶ **Secondary Documents**

Comprehensive Economic Development Strategy

- MAPC, 2013-2014

Greater Boston Chamber of Commerce Strategic Plan

- Greater Boston Chamber of Commerce, 2019

South Shore 2030: Choosing Our Future

- South Shore Chamber of Commerce, 2016

Greater Boston Workforce Planning Blueprint

- UMass Donahue Institute's Economic & Public Policy Research Group, 2018

Northeast Labor Market Blueprint

- MA Workforce Skills Cabinet, 2018

Southeastern MA Labor Market Blueprint

- MA Workforce Skills Cabinet, 2018

Red Line Life Science Study

- MAPC, 2019

Emergency Management Plans

▶ **Primary Documents**

MA Comprehensive Emergency Management Plan

- MA Emergency Management Agency, 2019

▶ **Secondary Documents**

MA Statewide Evacuation Coordination Plan

- MA Emergency Management Agency, 2019

MA Statewide Mass Care and Shelter Coordination Plan

- MA Emergency Management Agency, 2018

Equity and Public Health

▶ **Primary Documents**

Draft Age-Friendly MA Action Plan

- 2019 draft

MA Local Food Action Plan

- MA Food Policy Council, 2015

▶ **Secondary Documents**

North Suffolk Integrated Community Health Needs Assessment and Community Health Implementation Plan

- Revere, Chelsea, Winthrop, Forthcoming

State of Equity for Metro Boston: Policy Agenda Update

- Metropolitan Area Planning Council, 2018

Housing

▶ Primary Documents

The Greater Boston Housing Report Card 2019: Supply, Demand and the Challenge of Local Control

- The Boston Foundation, Dukakis Center, MHP Center for Housing Data, UMDI, 2019

The State of Zoning for Multi-Family Housing in Greater Boston

- Massachusetts Smart Growth Alliance, 2019

▶ Secondary Documents

Department of Housing and Community Development Moving to Work (MTW) Program Plan

- MA Department of Housing and Community Development (DHCD), FY2019

The Gap: A Shortage of Affordable Homes

- National Low Income Housing Coalitions, 2019

Outdoor Recreation

▶ Primary Documents

Massachusetts Statewide Comprehensive Outdoor Recreation Plan (SCORP)

- MA Energy and Environmental Affairs (EEA), 2017

Preservation

▶ Primary Documents

Massachusetts State Historic Preservation Plan

- MA Historical Commission, 2018-2022

Transportation

▶ Primary Documents

Focus 40: The 2040 Investment Plan for the MBTA

- MA Bay Transportation Authority (MBTA), 2018

Choices for Stewardship: Recommendations to Meet the Transportation Future

- MA Commission on the Future of Transportation in the Commonwealth, 2018

Draft Destination 2040

- Central Transportation Planning Staff (Boston MPO), 2019 draft

▶ Secondary Documents

Rail Vision

- MBTA, Expected release in late 2019/early 2020

Congestion in the Commonwealth: Report to the Governor

- MA Department of Transportation (MassDOT), 2019

MA Bicycle Transportation Plan

- MassDOT, 2019

State Rail Plan

- MassDOT, 2018

MA Freight Plan

- MassDOT, 2017

MA Pedestrian Transportation Plan

- MassDOT, 2019

A Vision for the Future of Massachusetts' Regional Transit Authorities

- Task Force on Regional Transit Authority Performance and Funding, 2019

Water Transportation Service Plans for Quincy and Inner Harbor

- Water Transportation Advisory Committee, 2019

Regional low-carbon transportation policy (in process)

- Transportation and Climate Initiative

MBTA Capital Plan

- MBTA, FY20-24

Water and Habitat Resources

▶ Primary Documents

Water and Wastewater Systems Master Plan

- MA Water Resources Authority (MWRA), 2018

Sustainable Water Management Initiative Framework (SWMI)

- MA Executive Office of Housing and Economic Development, 2012

Water Infrastructure Finance Commission's Final Report (WIFC)

- Water Infrastructure Finance Commission, 2012

MA State Wildlife Action Plan (SWAP)

- MA Division of Fisheries and Wildlife, 2015

▶ Secondary Documents

MA Drought Management Plan

- MA Energy and Environmental Affairs (EEA) and MA Emergency Management Agency, 2013

Other

▶ Secondary Documents

Boston-Logan International Airport Sustainability Management Plan

- Massport, 2015

Relevant State and Multi-Jurisdictional Plan Summaries

Climate Mitigation, Adaptation, & Resiliency Plans

MA Statewide Hazard Mitigation and Climate Adaptation Plan

Author(s): MA Emergency Management Agency, Executive Office of Energy and Environmental Affairs, Executive Office of Public Safety and Security

Date: 2018

Link: <https://www.mass.gov/service-details/massachusetts-integrated-state-hazard-mitigation-and-climate-adaptation-plan>

Brief Description

The Statewide Hazard Mitigation and Climate Adaptation Plan (SHMCAP) is the first-of-its-kind statewide plan that fully integrates a traditional hazard mitigation plan with a climate change adaptation plan, fulfilling the requirements to update the state's hazard mitigation plan per federal law and to prepare a climate adaptation plan per Governor Baker's Executive Order 569.

Summary and Potential Relevance to MetroCommon

The SHMCAP provides a rich compilation of data and projected impacts of four specific effects of climate change (changes in precipitation, sea level rise, rising temperatures, and extreme weather) on 14 natural hazards in Massachusetts (inland flooding, drought, landslide, coastal flooding, coastal erosion, tsunamis, average/extreme temperature, wildfires, invasive species, hurricanes/tropical storms, severe winter storm/Nor'easter, tornadoes, other severe weather, and earthquakes). The risks from climate change and these hazards on populations, government, built environment, natural resources and environment, and economy are analyzed. Special attention is given to vulnerable populations across the state.

In addition, the SHMCAP identifies five goals for mitigating risk and adapting to climate change and makes recommendations both generally for all state agencies, as well as for particular executive offices. The "global" recommendations for all agencies are very high-level, but the actions pertaining to particular offices are particularly relevant to MAPC's work and require further planning. For example, the SHMCAP recommends:

- ▶ "In support of EOEEA's efforts on MVP, build the capacity of regional organizations to implement climate adaptation and habitat restoration at the local level (Directed at DER)
- ▶ "Partner with stakeholders in MA to develop and implement regional and local multi-hazard mitigation plans by providing training and technical assistance (Directed at MEMA)
- ▶ "Develop and implement a communications strategy to build state agency, municipal and public awareness of climate change resiliency issues and adaptation strategies (Directed at EOEEA)"

Detailed Review Finding

Regional challenges and opportunities

The SHMCAP reviews 80 state agency climate change vulnerability assessments and aggregates the findings to identify vulnerabilities across state agencies, including remote operation capability and the status of incorporating hazard mitigation and adaptation into programs. The plan also assesses technological and human-caused hazards including, cyberattacks, chemical attack, active shooter, nuclear emergencies, and dam emergencies. The plan considers the threats to vulnerable populations across the state based on age, income, ability, language spoken, race, and access to a vehicle. For more information, refer to the discussion and data in the plan's Chapter 4: Risk Assessment.

In terms of opportunities, the SHMCAP identifies State-led initiatives that increase capacity to deal with hazards and climate change including:

- ▶ Significant investment in statewide, downscaled climate change projections at the county and watershed scale
- ▶ Coordination of regional and community-based hazard mitigation plans
- ▶ Fiscal Year 2019 Capital Investment Plan (each investment was evaluated for potential climate change implications and plan invests \$69 million in issues directly related to climate change)
- ▶ Environmental Bond Bill signed into law August 2018 (dedicates \$500 million to resiliency efforts)
- ▶ Coastal Resilience Grant Program expansions
- ▶ Municipal Vulnerability Preparedness program growth

Proposed interventions and solutions

The SHMCAP identifies more than 100 actions to increase the resilience of Executive Offices, state agencies, and across all entities. The global/cross-cutting hazard mitigation and climate adaptation actions are listed below.

- ▶ Incorporate climate change vulnerability, resiliency, and adaptation standards into budgeting, coordinating administrative functions, and planning
- ▶ Incorporate hazard and climate change vulnerability into personnel and workplace policies, training, and guidance as appropriate
- ▶ Incorporate climate change risk into power system planning
- ▶ Create and deploy a SHMCAP project database and track status updates on individual actions
- ▶ In consultation with DCAMM, MassDOT, and EOHEd, develop climate change design standards for roads, structures, housing, etc.
- ▶ Maintain and enhance climate change projections and specific climate change data sets to support different groups of end users
- ▶ Review the state building code to assess feasibility of incorporating hazard mitigation and resilience

- ▶ Migrate critical systems that support multiple state agencies to the cloud
- ▶ Incorporate hazard and climate change vulnerability into capital planning, master planning, and facilities management functions
- ▶ Review, evaluate, and implement revisions as needed to environmental and energy policies, regulations, and plans
- ▶ Utilize available climate change projections and risk assessment data to assess vulnerabilities of all EOEEA properties. Support efforts across the administration to assess facilities held by other Executive Offices
- ▶ Incorporate climate change resilience into business continuity planning for state government
- ▶ Update the SHMCAP and submit for FEMA review and approval
- ▶ Expand and improve the Boston Harbor Flood Risk Model to create the MA Coastal Flood Risk Model

In addition, MA is establishing a Resilient MA Action Team (RMAAT) that will include representatives from each Secretariat and key state agencies. Responsibility for implementation of the plan falls on many state agencies.

Other actions that are specific to individual offices that may relate to MetroCommon include:

- ▶ “Develop and implement a communications strategy to build state agency, municipal and public awareness of climate change resiliency issues and adaptation strategies (EOEEA)
- ▶ “Provide support and direct care to vulnerable populations susceptible to climate change (DPH)
- ▶ “In support of EOEEA’s efforts on MVP, build the capacity of regional organizations to implement climate adaptation and habitat restoration at the local level (DER)
- ▶ “Build out a mechanism to incorporate new data and recommendations from the FEMA-approved regional and local mitigations plans into the SHMCAP, ArcGIS online and/or Climate Clearinghouse, especially locations of critical facilities and assessments of vulnerability and estimates of potential losses by jurisdiction (MEMA)
- ▶ “Partner with stakeholders in MA to develop and implement regional and local multi-hazard mitigation plans by providing training and technical assistance (MEMA)
- ▶ “Incremental development of resiliency-oriented design guideline (MassDOT)
- ▶ “Regional power grid planning and incorporation of climate change data (DPU)
- ▶ “Facilitate and coordinate development of guidelines and best practices for climate change adaptation and resilience for state-aided housing development (DHCD)

- ▶ “Review Chapter 40A and existing regulatory framework to evaluate incorporation of feasibility and practicality of climate change hazard mitigation measures (MPRO)”

The plan will be maintained with an annual review, a post-disaster review, and a 5-year plan review and update.

Forces that will impact the region’s future

The SHMCAP plans for 14 natural hazards and considers how 4 changes to the climate are predicted to affect those hazards, as shown in Table 2 below.

Table: Climate Change Projections for MA

Climate Changes	Related Natural Hazards	Projections by 2100
Changes in precipitation	<ul style="list-style-type: none"> • Inland flooding • Drought • Landslide 	<ul style="list-style-type: none"> • Annual precipitation: Increase up to 16% (+7.3 inches) • Days with rainfall accumulation 1+ inch: Increase up to 57% (4+ days) • Consecutive dry days: Increase 18% (+3 days) • Summer precipitation: Decrease
Sea level rise	<ul style="list-style-type: none"> • Coastal flooding • Coastal erosion • Tsunami 	<ul style="list-style-type: none"> • Sea level: Increase 4.0 to 10.5 feet along the MA coast
Rising temperatures	<ul style="list-style-type: none"> • Average/extreme temperatures • Wildfires • Invasive species 	<ul style="list-style-type: none"> • Average annual temperature: Increase up to 23% (+10.8° F) • Days/year with daily minimum temperatures below freezing: Decrease up to 42% (-62 days) • Winter temperatures: Increase at a greater rate than spring, summer, or fall • Long-term average minimum winter temperature: Increase up to 66% (+11.4° F) • Days/year with daily maximum temperatures over 90° F: Increase by up to 1,280% (+64 days) • Growing degree days: Increase by 23% to 52%
Extreme weather	<ul style="list-style-type: none"> • Hurricanes/tropical storms • Severe winter storms/nor’easters • Tornadoes • Other severe weather 	<ul style="list-style-type: none"> • Frequency and magnitude: Increase

Economic Development

Opportunities for All: the Baker-Politico Strategy and Plan for Making Massachusetts Great Everywhere

Author(s): Executive Office of Housing and Economic Development

Date: 2015

Link: <https://archives.lib.state.ma.us/handle/2452/335376>

Brief Description

MA law requires each new gubernatorial administration to publish a comprehensive economic development policy and strategic plan for implementing policy. Opportunities for All is the policy and plan for the Baker-Politico Administration that will guide the work of the Executive Office of Housing and Economic Development.

Summary and Potential Relevance to MetroCommon

The key components of the economic development plan are:

- ▶ Prosperity for Citizens: Supporting workforce development strategies that close the skills gap and connect citizens to economic opportunity
- ▶ Vitality for Communities: Promoting vibrant communities & regions
- ▶ Growth for Businesses: Advancing the development of key industry clusters, and harnessing cluster development to drive job growth in the Commonwealth's regions; Sharpening the Commonwealth's competitive position through regulatory reform, and efforts to lower key business costs, such as energy costs.

In order to support citizens, communities, and businesses, the plan identifies seven priority policy areas:

1. Preparing Communities for Success
2. Fostering a Culture of Innovation and Entrepreneurship
3. Workforce Development and Talent Retention
4. Supporting Key Clusters and Industries
5. Balanced Regulatory and Business Cost Environment
6. Housing Policies that Support Economic Growth
7. Transportation Access

Many of the strategic goals and implementation priorities of the plan align with MAPC's work in land use, economic development, and housing. For example, some of the implementation priorities of the plan are to "support the revitalization of town centers and downtowns" and to "support regional land use planning, and the identification of priority development and preservation sites." However, the plan is high-level and does not make commitments to specific projects or programs.

Detailed Review Finding

Regional challenges and opportunities

The plan identifies strengths, weaknesses, and opportunities of the MA economy (see plan pages 37 and 38).

Some of the strengths of the MA economy identified include:

- ▶ Unmatched knowledge economy
- ▶ High and growing prosperity – fifth highest GDP per capita, fifth highest rate of growth in the US
- ▶ Diverse cluster base – education, financial services, biopharma, and health care delivery, etc.

Some of the weaknesses include:

- ▶ Unaffordable housing
- ▶ Growing levels of economic inequality
- ▶ Aging infrastructure

Some of the opportunities include:

- ▶ “Residents and workers are embracing character-rich urban neighborhoods nationally, creating a market tailwind for Gateway City development
- ▶ “The increasing orientation of the national economy toward knowledge-intensive industries plays to MA’s strengths
- ▶ “The state has a renewed focus on vocational and technical education”

The Administration recognizes that all aspect of government contribute to economic development, including Transportation through access, Energy and Environmental Affairs through sustainability, Labor and Workforce Development through career training, and Education through readiness.

Proposed interventions and solutions

The plan identifies the following strategic goals for each of the priority policy areas:

▶ Preparing Communities for Success

- Match communities and regions to economic opportunities
- Foster community leadership development
- Invest in infrastructure
- Create physical spaces that attract investment
- Craft regulations that balance environmental protection and community assets

▶ Fostering a Culture of Innovation and Entrepreneurship

- Deepen partnerships with higher education
- Support an infrastructure for innovation
- Seed and grow innovation communities
- Support community-based entrepreneurship
- Coordinate quasi-public agency work

▶ **Workforce Development and Talent Retention**

- Align workforce development behind employer needs
- Coordinate state workforce development resources
- Improve talent retention
- Facilitate regional dialogue on skills pipelines
- Deepen inter-Secretariat collaboration

▶ **Supporting Key Clusters and Industries**

- Analyze and communicate opportunities
- Strengthen established clusters
- Support emerging clusters
- Act regionally
- Expand markets

▶ **Balanced Regulatory and Business Cost Environment**

- Reform regulatory culture
- Reform regulatory process
- Drive cost competitiveness
- Collaborate across cabinets
- Deepen local best practices

▶ **Housing Policies that Support Economic Growth**

- Increase the supply of housing
- Promote reasonable density in cities and town centers
- Empower municipalities by sharing best practices and data
- Support affordability
- Support economic mobility

▶ **Transportation Access**

- Support housing in transit-oriented locations
- Use transportation to unlock economic development
- Connect workers to jobs
- Create a 21st century transportation network

Forces that will impact the region's future

See discussion of regional challenges and opportunities.

Equity and Public Health

DRAFT Age-Friendly MA Action Plan

Author(s): Commonwealth of MA, Massachusetts AARP, Tufts Health Plan Foundation, Healthy Aging Collaborative, Healthy Living Center of Excellence
Date: 2019 Draft

Link: https://www.mass.gov/files/documents/2019/03/15/Age-Friendly%20MA%20Action%20Plan%20-%20January-28-2019-1_0.pdf

Brief Description

This plan serves as the state's multiyear plan to make Massachusetts more age- and dementia-friendly.

Summary and Potential Relevance to MetroCommon

AARP designated the Commonwealth as one of the first states to join the AARP's Network of Age-Friendly State and Communities. The Commonwealth's mission for the designation is "to amplify, align, and coordinate local, regional, and statewide efforts to create a welcoming and livable Commonwealth as residents grow up and grow old together. The plan describes different entities' efforts across the Commonwealth to promote age-friendly communities, and, building on the existing efforts, establishes values, goals, strategies, and actions. The goals and strategies are high-level, such as "Goal 4: Encourage the adoption of age-friendly policies and practices in all sectors." However, some of the strategies and actions relate to regional planning and land use, including:

Strategy: Change how we plan for and maintain the built environment to encourage people to age in community

► Actions

- Develop adaptability design standards for all state-funded senior housing to maintain tenancies in the face of increased frailty
- Improve mobility and transportation through structural enhancements and policy changes
- Encourage the development of age/dementia friendly parks, recreation centers, and other communal spaces

Continue to increase affordable housing options for older adults, including service enriched housing, assisted living, in-home services, villages, etc.

► Actions

- Conduct a scan of all available housing options and service provisions for older adults and individuals with disabilities
- Evaluate village model, including successes and barriers in various communities, and use lessons learned to scale establishment of villages
- Develop new production of moderate-income housing for older people through new cross-sector financial partnerships and exploration of a loan product
- Increase advocacy for additional Federal Section 202 funding for MA
- Expand supportive services in state public housing

Detailed Review Finding

Regional challenges and opportunities

- ▶ The population in MA is aging. Statewide, there are more residents over the age of 60 than under the age of 20. However, the eastern part of the state has fewer elderly residents than the western part. According to AARP, 87% of adults 65 years and older want to remain in their current home and community as they age
- ▶ There are many existing age-friendly planning efforts. Over 200 cities and towns in MA are planning age-friendly initiatives. For example, both [Boston](#) and [Salem](#) have Age-Friendly Action Plans:

Proposed interventions and solutions

The plan establishes six goals, as well as strategies to achieve each (see [Appendix A](#)). The goals and strategies seem to apply generally to all statewide initiatives by the Commonwealth.

1. Community: Deepen and strengthen age and dementia friendly efforts to be inclusive of all communities and populations
2. Information and Communication: Communicate information in an accessible and user-friendly manner to residents, organizations, and municipalities
3. Reframing: Change the conversation about aging from a “challenge” to an “asset”, increase literacy about issues related to aging, and eliminate ageist images and expressions in language across social, print, and other media
4. Policy and Practice: Encourage the adoption of age-friendly policies and practices in all sectors
5. Economic Security: Take specific actions to improve economic security of older adults and caregivers
6. Sustainability: Leverage existing structures to sustainably guide and support the work of Age-Friendly MA and partner initiatives

Forces that will impact the region’s future

See challenges and opportunities above.

Equity and Public Health

MA Local Food Action Plan

Author(s): MA Food Policy Council

Date: 2015

Link: <https://mafoodsystem.org/plan/>

Brief Description

The Action Plan analyzes existing conditions and establishes goals and recommendations for improving MA's agricultural economy, enhancing resiliency of the food system, and improving the nutritional health of the state's population.

Summary and Potential Relevance to MetroCommon

The Action Plan assesses existing conditions and makes recommendations for the following issue areas: Land; Inputs; Farming; Fishing; Processing; Distribution and Marketing; Food Access, Security, and Health; Workforce Development and Training; Implementation; and Metrics. The plan's goals are to:

- ▶ Increase production, sales, and consumption of Massachusetts-grown foods
- ▶ Create jobs and economic opportunity in food and farming, and improve the wages and skills of food system workers
- ▶ Protect the land and water needed to produce food, maximize environmental benefits from agriculture and fishing, and ensure food safety.
- ▶ Reduce hunger and food insecurity, increase the availability of healthy food to all residents, and reduce food waste.

For each goal, long-term and short-term recommendations as well as near-term steps are identified. The main themes of the recommendations are:

- ▶ More informational and educational resources are needed to improve the growth potential of farm businesses, consumers, and food system workers.
- ▶ The regulatory environment at the State and local levels is in need of reform if our farms, food producers, and retailers are to remain competitive and sustainable.
- ▶ Targeted support to improve the financial capacity and technical proficiency of farms and food businesses is needed to catalyze new growth in our food system.

Many of the recommended actions are very relevant to MetroCommon, such as: "Encourage communities to enact zoning bylaws that permit ancillary commercial enterprises in areas zoned for agriculture." However, the plan does not include any direct impacts on growth and development patterns.

Detailed Review Finding

Regional challenges and opportunities

The key challenges identified in the plan include:

- High cost of land
- Generation of retiring farmers
- Many food system jobs have low wages, long hours, and no benefits
- Complex regulations without technical assistance to assist with compliance for small business owners
- Rising rates of hunger – food insecurity affects 1 in 9 MA residents
- Epidemic levels of obesity, diabetes, and other diseases related to poor nutrition
- Increased cost of public health
- Threats to natural resources from climate change, pollution, and development

Some of the opportunities include:

- The food system in MA employs about 1 of every 10 workers residing in the State and accounts for 4.5% of all economic activity
- MA ranks 1st in the US for the percentage of farms using “community supported agriculture”

Proposed interventions and solutions

Below are the four goals and key recommendations for each. In addition, the plan provides specific actions to pursue for each recommendation (see pages [20-156](#)).

1. Increase production, sales, and consumption of Massachusetts-grown foods
 - Market Massachusetts-produced food more effectively
 - Provide research, technical assistance, and other resources for farming
 - Distribute food more efficiently
 - Improve food processing infrastructure
 - Support the seafood industry
2. Create jobs and economic opportunity in food and farming, and improve the wages and skills of food system workers
 - Support food system businesses, workers, and consumers with a strong research, educational, and technical assistance network
 - Ensure that regulations support the growth of agriculture and other food system businesses, while protecting workers, the environment, and public health
 - Identify regulations that hinder viability
 - Fund infrastructure development
 - Provide business supports
3. Protect the land and water needed to produce food, maximize environmental benefits from agriculture and fishing, and ensure food safety.
 - Keep farmland in farming
 - Permanently protect farmland

- Make more land available for farming
 - Improve soil health
 - Provide resources for fisheries
 - Protect water resources
 - Increase energy efficiency and sustainable practices in food production
 - Ensure food safety
4. Reduce hunger and food insecurity, increase the availability of healthy food to all residents, and reduce food waste.
- Increase household buying power
 - Expand nutrition education
 - Expand physical access to fresh, healthy, and local food
 - Expand access to healthy food for children
 - Improve access to healthy food with better transportation and food infrastructure
 - Support urban agriculture

Forces that will impact the region's future

See discussion of challenges and opportunities.

Emergency Management

MA Comprehensive Emergency Management Plan

Author(s): MA Emergent Management Agency

Date: 2019

Link: <https://www.mass.gov/files/documents/2019/02/08/MA%20CEMP%20Base%20Plan%20Jan%202019%20Final.pdf>

Brief Description

The Comprehensive Emergency Management Plan (CEMP) describes the state's emergency management system and assigns responsibility for performing activities related to emergency preparedness, prevention, response, recovery, and mitigation for the Commonwealth.

Summary and Potential Relevance to MetroCommon

The CEMP includes a Base Plan, as well as Massachusetts Emergency Support Function (MESF) "functional annexes" and "Incident-specific annexes." The MESF annexes provide additional detail on essential discipline-specific functions, and the "Incident-specific annexes" contain specialized information and procedures required in order to address certain specific types of events. The CEMP is activated upon order of the Governor, MA Emergency Management Agency (MEMA) Director, or by a Presidential Declaration of an Emergency for areas in the Commonwealth.

The objectives of the CEMP are to:

- ▶ Assign responsibilities to agencies, organizations and individuals for carrying out specific actions during an emergency
- ▶ Detail the methods and procedures to be used by emergency management personnel to assess emergencies and take appropriate actions to save lives and reduce injuries, prevent or minimize damage to public and private property, and protect the environment;
- ▶ Provide a process by which emergency response personnel and local government staff can efficiently and effectively prevent, mitigate, prepare for, respond to, and recover from emergencies and disasters;
- ▶ Identify the responsibilities of local, state, non-governmental, volunteer, private sector and federal agencies during emergencies or disasters;
- ▶ Identify lines of authority and coordination for the management of an emergency or disaster; and
- ▶ Coordinate mutual aid to supplement state resources.

The CEMP is one component of the Commonwealth's Comprehensive Emergency Management Program, which in addition to the CEMP, includes a Multi-Year Emergency Management Strategic Plan – sets forth a vision for the program and defines its mission, goals, objectives, and milestones; the Continuity of Operations/Continuity of Government Base Plan – describes how the Commonwealth's essential government functions will be continued during an emergency or disaster

and reconstituted after; and the State Hazard Mitigation and Climate Adaptation Plan – establishes strategies and actions to reduce or eliminate risks presented by the hazards that threaten the Commonwealth and those that will be influenced by climate change.

The CEMP does not propose any changes in infrastructure or physical development relevant to MetroCommon. However, among other policies, the CEMP includes discussion of FEMA’s Hazard Mitigation Assistance Grants and local mitigation planning, which could affect development patterns relevant to MetroCommon.

Detailed Review Finding

Regional challenges and opportunities

The Commonwealth recently undertook an extensive threat and hazard identification and risk assessment (THIRA) process to identify the natural and human-caused hazards that could potentially affect the Commonwealth. In 2018, MEMA undertook a Hazard Identification and Risk Assessment (HIRA) to further define and analyze threats, including the potential consequences to the public; responders; continuity of operations, including continued delivery of services; property, facilities, and infrastructure; environment; economic condition of the Commonwealth; and public’s confidence in the jurisdiction’s governance. The CEMP is based on the threats identified in the MEMA Hazard Identification and Risk Assessment report.

Proposed interventions and solutions

The CEMP identifies and assigns responsibilities to the State Emergency Operations Center, MEMA, and local governments for emergency prevention and mitigation, preparedness, response (including warning and notification), and recovery.

In addition to the CEMP, other planning activities at the local, regional, and statewide levels include:

- ▶ Local Comprehensive Emergency Management Plans
- ▶ Nuclear Plans
- ▶ Dam Emergency Action Plans
- ▶ Utility Emergency Operations Plans
- ▶ Local/Regional Emergency Planning Committee Plans
- ▶ Continuity of Operations/Continuity of Government Planning
- ▶ Standard Operating Guidance Development and Maintenance

Forces that will impact the region’s future

See discussion above of regional challenges and opportunities.

Housing

The Greater Boston Housing Report Card 2019: Supply, Demand and the Challenge of Local Control

Issue area: Housing

Author(s): The Boston Foundation, Northeastern University Dukakis Center for Urban and Regional Policy, MHP Center for Housing Data, UMass Donahue Institute
Date: 2019

Link: <https://www.tbf.org/news-and-insights/reports/2019/june/greater-boston-housing-report-card-2019>

Brief Description

The Housing Report Card is an annual assessment of housing conditions in Greater Boston (including Essex, Middlesex, Norfolk, Plymouth, and Suffolk counties) and what needs to be done to meet the region's goals for current and future housing production.

Summary and Potential Relevance to MetroCommon

The report assesses housing conditions throughout the region, actions that communities in the region have taken to increase the supply of affordable housing, and the consequences of failing to meet the region's housing demand in terms of increasing racial segregation.

The report finds that there has been substantial progress, yet three main challenges persist: insufficient housing supply, lack of housing affordability, and inequity in access to housing. Key findings by issue area include:

- ▶ **Housing supply:** Recent housing production is concentrated in only a small number of cities and towns. Multifamily development is increasingly concentrated in cities and towns served by the MBTA subway but not in communities served by commuter rail
- ▶ **Affordability:** Metro Boston is now ranked the 4th most expensive metro area in the country to buy a home and the 3rd to rent
- ▶ **Displacement:** Foreclosures have significantly decreased since the recession, but they remain concentrated in Gateway Cities. In Greater Boston, the number of homeless families increased by 27% and the number of individuals by 45%
- ▶ **Best Practices and Local Regulation:** Although many cities and towns have revised their zoning to allow for more housing production, housing production is still stalled in many areas.
- ▶ **Racial Segregation:** Boston remains one of the most segregated metro areas in the country. People of color are still highly concentrated in a few places, often in poorer neighborhoods, even if residents themselves aren't poor.

The report's recommended next steps – all seemingly relevant to MetroCommon – include:

- ▶ Pass the governor's Housing Choices legislation, as well as additional requirements and incentives to overcome local government opposition to increased density and multi-family development
- ▶ Devote additional resources to housing development and low-income rental assistance
- ▶ Extend inclusionary zoning to new cities and towns
- ▶ Expand the state housing finance programs that promote upward mobility and construction of affordable housing in all types of communities
- ▶ Enforce state and federal fair housing and antidiscrimination laws
- ▶ Collect and compile data from local governments

Detailed Review Finding

Regional challenges and opportunities

- ▶ The region is not prepared to accommodate the expected population growth resulting from economic development. Most residents that will be priced out of the region are low income, but middle income households including college-educated workers are also affected.
- ▶ Most communities have zoning that allows multifamily housing in at least some locations, and there has been an increase in communities that allow multifamily housing since 2005. Of the 132 communities that allow multifamily housing, a little less than half allow it by-right in at least some circumstances. However, most multifamily housing in the region is approved via special permits or comprehensive permits issued by local zoning boards pursuant to Chapter 40B.
- ▶ Potential for development through multifamily zoning has increased. Since 2004, 63 municipalities changed their zoning to potentially allow more multifamily units to be built, however, the zoning potential “does not appear” to be of sufficient magnitude to meet unmet multifamily demand.
- ▶ Many communities impose age restrictions on new multifamily development, which by definition, exclude certain populations such as families with children.
- ▶ Zoning to allow accessory dwelling units (ADUs) has increased. Now, more than two-thirds of all municipalities in Greater Boston have permitted ADUs.
- ▶ Zoning for mixed-use development has doubled. More municipalities and residents are encouraging walkable and transit-oriented development within existing town centers and/or the creation of new town centers.
- ▶ Inclusionary zoning has changed little in Greater Boston, but has seen more adoption across the state.

- ▶ Two-thirds of municipalities have adopted the Community Preservation Act (CPA), which offers municipalities’ flexibility to adopt a property tax surcharge to fund open space, historic preservation, affordable housing, and outdoor recreational spaces. Nearly half have created affordable housing trust funds.

Proposed interventions and solutions

To address housing supply, the report recommends the following legislative efforts:

- ▶ Enact Governor Baker’s Housing Choices legislation to shift from a 2/3 super majority to a simple majority vote to adopt zoning changes
- ▶ Require every city and town adopt viable multifamily zoning in certain areas
- ▶ Allow duplexes and other multifamily housing types by right in all single-family zones
- ▶ Allow ADUs under certain conditions in all single-family zones
- ▶ Penalize frivolous appeals of local approvals to build new housing

To address housing supply, the report recommends the following non-legislative efforts:

- ▶ Increase technical support for cities and towns seeking to identify land appropriate for housing development
- ▶ Promote development models for multifamily developments of less than 50 units
- ▶ Support civic leaders interested in learning more about housing needs
- ▶ Public education about the economic benefits of new housing and minimal effect on school budgets
- ▶ Support for local “YIMBY” advocates

And to address lack of affordable housing, affordability preservation, inequity, and data needs, the report recommends:

- ▶ Continue strong investment in affordable housing, such as the \$1.8 billion housing bond and increases in the state low income tax credit
- ▶ Continue to prioritize affordable housing preservation, such as Chapter 40T
- ▶ Work with towns and cities to adopt effective inclusionary housing ordinances
- ▶ Develop and expand state housing finance programs that promote upward mobility, such as mortgage products that target historically underserved borrowers
- ▶ Enforce state and federal fair housing and antidiscrimination laws
- ▶ Support regions in annually collecting data on current zoning ordinances and bylaws, zoning maps in GIS format, property-level detail from local

assessors, and basic property-level data for all new addresses added to the state 9-1-1 database

Forces that will impact the region's future

See discussion of challenges and opportunities above.

Housing

The State of Zoning for Multi-Family Housing in Greater Boston

Author(s): MA Smart Growth Alliance

Date: 2019

Link: https://41g41s33vxdd2vc05w415s1e-wpengine.netdna-ssl.com/wp-content/uploads/2019/06/Multi-Family_Housing_Report_Final_June2019.pdf

Brief Description

This report assesses zoning for multi-family housing in 100 cities and towns of Greater Boston to inform efforts at reforming the regulatory system.

Summary and Potential Relevance to MetroCommon

Municipalities in the Boston region have been over-restricting housing development. As a result, there is not enough housing in the region to meet demand, and prices have continued to rise. Policy reform is challenging, because it is difficult to understand the system of regulation as it functions for the whole region. Each municipality adopts its own zoning ordinance and most are very complex. Even after reviewing local plans and zoning as part of developing this report, it remains difficult to analyze development potential as some plan recommendations are never implemented and many individual projects require legislative approval.

However, the report finds some key trends in the region:

- ▶ There has been a substantial increase in zoning and planning for mixed use development, especially in town centers and industrial properties. Making new housing development dependent on commercial development might become problematic as demand for commercial space decreases.
- ▶ An increasing number of municipalities require special approval of multi-family projects, through floating zoning, special permit, or parcel zoning.
- ▶ Although there has been an increase in zoning for new housing in village centers, much more housing has been built on the edge of municipalities.

Report also identifies the key zoning barriers to multi-family housing are:

- ▶ Very little land is zoned for multi-family housing. What is zoned for multi-family housing is often built out to the capacity allowed.
- ▶ Where multi-family housing is allowed, restrictive regulations prohibits development, including minimum parcel sizes, dimensional requirements, age restrictions, bedroom restrictions, and parking requirements
- ▶ The local zoning approval processes for multi-family housing have become more discretionary and political. Most permitting of multi-family housing is not by right, resulting in uncertainty, delays, and political opposition to development
- ▶ The report is a useful resource for MetroCommon, but, as a research report, does not include any specific commitments or new projects.

Regional challenges and opportunities

► Trends

Mixed-used

- 83 of 100 municipalities zone for mixed use projects

Location of development

- Framingham, Quincy, Malden, Waltham, and Walpole have been building hundreds of housing units in their centers
- Substantial housing developments have been approved on the edges of Needham, Westwood, and Newton
- There have been few efforts to increase density in existing residential neighborhoods.

► Barriers

Restrictive regulation

- 21 of 100 municipalities have no zoning provisions for multi-family housing at a density of 12+ units/acre
- 55 of 100 municipalities have provisions for age-restricted multi-family housing
- 28 of 100 restrict the number of bedrooms that can be included in at least some kinds of multi-family housing
- Essex requires more parking per bedroom in a multi-family unit than for single family housing. Wrentham requires 3 spaces for any multi-family units
- Many municipalities have been revising their parking standards to reduce requirements
- Several municipalities (i.e. Bellingham, Boxborough, Duxbury, Rockland, etc.) effectively prohibit multi-family development or only allow a marginal amount. Some of these towns lack sewer and water infrastructure to support population increases.)

Ad hoc permitting

- 64 of 100 municipalities have provisions for multi-family housing by right. 35 of 100 only allow multi-family by special permit

Legislative approval types:

- Floating zoning: requirements for multi-family housing are listed in the zoning, but the multi-family district is not delineated on the zoning map. Town meeting or city council would need to vote to attach the zoning to a specific parcel, in effect approving individual projects
- Special permit: Special permits must be granted by the city council, rather than the planning board (i.e. Newton, Gloucester, Lynn, Marlborough, Medford, etc.)
- Parcel zoning: town meeting or city council approves zoning districts that only cover a single parcel of land under singular ownership

Proposed interventions and solutions

Craft policies and permit approval processes that are predictable yet achieve the benefits of negotiated decision-making and local control

Forces that will impact the region's future

Fluctuations in political support for multi-family housing development

Outdoor Recreation

Massachusetts Statewide Comprehensive Outdoor Recreation Plan (SCORP)

Author(s): MA Energy and Environmental Affairs (EEA)

Date: 2017

Link: <https://www.mass.gov/files/massachusetts-SCORP-2017-for-submission.pdf>

Brief Description

The SCORP identifies gaps between the available recreation resources in the Commonwealth and the needs of residents and is used to guide the distribution of federal money from the Land and Conservation Fund to state agencies and municipalities for the acquisition of open space, renovation of parks, development of new parks, and trail construction.

Summary and Potential Relevance to MetroCommon

The SCORP assesses the availability of outdoor recreational resources, the residents' needs for those resources, and identifies gaps between the two. At the time the SCORP was adopted, there were 863, 419 acres of publicly accessible outdoor land in the Commonwealth, including lands managed by federal, state, local agencies, and land trusts. The state owns the most outdoor recreational land in the Commonwealth. In terms of demand, based on on-line surveys, public meetings, and a phone-survey, the SCORP identifies need for investment in hiking, walking, and biking trails, as well as access to water-based recreation.

Based on this assessment, the SCORP identifies four goals, as well as objectives for each.

- ▶ Access for underserved populations
- ▶ Support the Statewide Trails Initiative
- ▶ Increase the availability of water-based recreation
- ▶ Support the creation and renovation of neighborhood parks

The SCORP does not propose any specific changes in infrastructure or physical patterns in the Boston region. However, the goals and objectives affect development patterns relevant to MetroCommon.

Detailed Review Finding

Regional challenges and opportunities

- ▶ In the past few years, land in the state has been protected at a faster rate than it has been converted. According to Mass Audubon's Planning for Growth Program, between April 2005 and April 2013, approximately 38,000 acres of forest or other undeveloped land were converted to development. In other words, on average 13 acres were converted per day. However, over the same time period, 41 acres were protected per day. This high rate of protection is partly due to the affordable land prices during the Great Recession.

- ▶ There is still a lot of land that could be developed or protected. In all, 22% of MA is developed and 25% is protected
- ▶ Among other things, conservation is good for the economy. A 2013 study by The Trust for Public Land found that every \$1 invested in land conservation returned \$4 in natural goods and services to the Massachusetts economy
- ▶ As the population of MA ages, it is assumed that more open space will be needed. Retirees generally relocate to areas rich in outdoor recreational resources.
- ▶ Trails can improve public health. Parks and open spaces with trails, paved or unpaved, and wooded areas are seven times more likely to be used for physical activity than those that do not.
- ▶ There are multiple funding sources available for outdoor recreation projects in MA including Land and Water Conservation Fund (LWCF) and state-funded municipal grant programs. Any municipality in the Commonwealth with an up-to-date Open Space and Recreation Plan is eligible to apply for LWCF grants. LWCF has funded 527 projects and awarded nearly \$100 million in Massachusetts since the program's inception.

Proposed interventions and solutions

The SCORP identifies the following four goals and related objectives:

- ▶ Access for underserved populations
 - Support the acquisition of land and development of new open spaces in areas that lack existing or useable open spaces, such as Environmental Justice neighborhoods
 - Develop parks and open spaces that offer amenities that go above and beyond ADA requirements for people with disabilities
 - Consider the needs of underserved demographic groups – senior citizens and teenagers – in park and open space designs
 - Encourage establishment of programming endowments
- ▶ Support the Statewide Trails Initiative
 - Support the acquisition of land and development of new open spaces that can provide a trail network
 - Fill in the gaps of existing trail networks
 - Ensure that any existing or new trails are fully accessible to people with disabilities
- ▶ Increase the availability of water-based recreation
 - Support the acquisition of land that will provide for water-based recreation
 - Support the acquisition of land that will increase drinking water supply protection
 - Develop water-based recreational facilities, including swimming areas, spray parks, boating facilities, fishing areas, etc.

- ▶ Support the creation and renovation of neighborhood parks
 - Promote the acquisition and development of neighborhood parks where none currently exist
 - Develop amenities supported by neighborhood parks, such as playgrounds, off-leash dog parks, and community gardens
 - Work with community development organizations to improve walking access to local parks

In addition, over the next five years, there will be an active effort to work with local municipalities and state agencies to develop a database that lists all of the amenities at each facility by region. Over time, private and non-profit facilities can be added.

Forces that will impact the region's future

See discussion of regional challenges and opportunities.

Preservation

MA State Historic Preservation Plan

Author(s): MA Historical Commission (MHC)

Date: 2018-2022

Link: <https://www.sec.state.ma.us/mhc/mhcpdf/statepresplan20182022webversion.pdf>

Brief Description

The five-year state historic preservation plan guides the MHC's Annual Work Program and helps inform and coordinate the work of local, state, and national preservation partners.

Summary and Potential Relevance to MetroCommon

The plan is organized into three sections: Major Accomplishments since the last plan's adoption, Current Challenges, and Goals and Objectives for the next five years.

- ▶ The Major Accomplishments relate to the goals from the previous plan and include: helping 37 more cities pass the Community Preservation Act; using historic preservation bylaws and ordinances at the local level to protect significant properties; and administering regulatory design review within local historic districts to best protect significant historic resources and areas.
- ▶ There are many Challenges and Opportunities identified, falling into the following categories: demolition, sprawl, funding, education, deferred maintenance, and outdated information. In addition, climate change is resulting in new challenges.
- ▶ Generally, the Goals and Objectives focus on identifying, evaluating, and protecting resources. In addition to the traditional methods of surveys, working with local governments, and adding properties to the National Register, goals include working with diverse communities in historic preservation and considering threats from climate change.

The plan does not propose any changes in infrastructure or physical development relevant to MetroCommon. However, several of the goals and objectives relate to economic development and physical resources in the region.

Detailed Review Finding

Regional challenges and opportunities

The plan identifies the following challenges, as well as specific issues for each (see plan pages 3-1 to 3-24).

- ▶ Identifying and documenting historic and archaeological resources
- ▶ Evaluating and registering historic and archaeological resources
- ▶ Protecting historic and archaeological resources through state and federal regulations
- ▶ Protecting archaeological sites

- ▶ Protecting historic resources through financial support
- ▶ Protecting historic resources through assisting local governments
- ▶ Protecting historic resources through local government actions
- ▶ Protecting the rural historic landscape
- ▶ Protecting historic and archaeological resources through emergency preparedness
- ▶ Revitalizing and protecting historic urban and industrial areas
- ▶ Encouraging historic preservation through heritage tourism
- ▶ Strengthening the stewardship of historic and archaeological resources
- ▶ Protecting historic resources through education and public awareness
- ▶ Integrating historic preservation into environmental sustainability
- ▶ Strengthening partnerships with varied organizations, demographics, and interests
- ▶ Including diverse cultural and ethnic communities in historic preservation efforts

Proposed interventions and solutions

The plan identifies the following goals with specific actions for each (see plan pages 4-1 to 4-8).

- ▶ **Goal 1:** Identify and document historic and archaeological resources
- ▶ **Goal 2:** Evaluate and register historic and archaeological resources
- ▶ **Goal 3:** Protect historic resources through education, collaboration, and public awareness
- ▶ **Goal 4:** Protect historic resources through greater advocacy
- ▶ **Goal 5:** Strengthen the stewardship of historic and archaeological resources
- ▶ **Goal 6:** Protect historical resources through financial support
- ▶ **Goal 7:** Protect historic resources from climate change, natural disasters, and human-made disasters
- ▶ **Goal 8:** Include diverse cultural and ethnic communities in historic preservation
- ▶ **Goal 9:** Protect historic and archaeological resources through assisting local governments
- ▶ **Goal 10:** Protect historic and archaeological resources through local governments
- ▶ **Goal 11:** Encourage sustainable development through historic resources
- ▶ **Goal 12:** Encourage economic development through historic preservation
- ▶ **Goal 13:** Protect historic and archaeological resources through state and federal policies and regulations

Forces that will impact the region's future

There is little discussion of forces that will impact the region's future.

Transportation

Focus40: The Plan

Author(s): MA Bay Transportation Authority (MBTA)

Date: 2019

Link: https://static1.squarespace.com/static/57757a3cff7c50f318d8aae0/t/5c9042690852294993eae62b/1552958096600/F40+Final+Book+Layout_V9-2019_03_13-508compliant.pdf

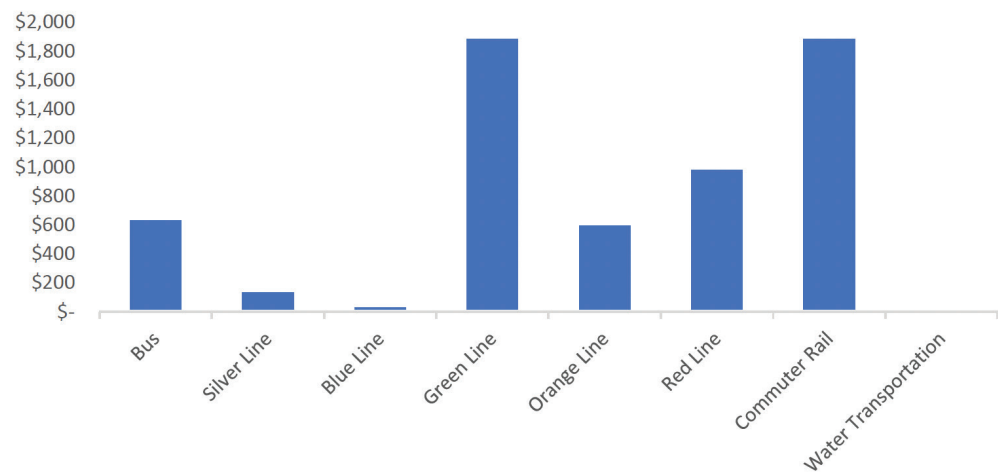
Brief Description

Focus40 is a financially unconstrained 20-year plan to guide future MBTA Capital Investment Plans, as required by MBTA enabling legislation.

Summary and Potential Relevance to MetroCommon

Focus40 takes a place-based approach to transportation planning, rather than MBTA's historic approach of a project-based approach. The plan's identified "Priority Places" for transit investment could help promote greater coordinated land use and transportation planning. Most investment is targeted at maintenance, operations, and expanding capacity of existing services through replacing vehicles and reducing headways. MBTA is also currently pursuing changes to bus routes. In the longer-term, there are plans for some service expansion to new areas, including Blue Line extension to Lynn; Blue Line connection with the Red Line; Green Line Extension to Hyde Square, Mystic Valley Parkway, and Somerville/Medford; Silver Line BRT to Everett; Orange Line extension to Everett and Roslindale; and Commuter Rail extension to Fall River and New Bedford. All of these investments will impact development potential near these locations. The chart below shows the total programmed commitment through 2023 for all Focus40 programs, illustrating the relatively large investments in the near-term in the Green Line and Commuter Rail.

Focus40 Programs: Total programmed commitment through 2023, in \$ millions



Detailed Review Finding

Regional challenges and opportunities

Focus40 marks a shift in MBTA’s planning for capital expansion and projects. Instead of starting with a list of expansion projects, the plan identifies “Priority Places” that need and can support a higher level of transit and develops projects to serve those Priority Places. The Priority Places are:

- ▶ Major Employment Districts: Kendall, Longwood Medical Area, South Boston Waterfront, and Logan Airport
- ▶ Inner Core Communities Lacking Rapid Transit: Brighton, Roslindale, Everett/Chelsea/Revere, Roxbury/Mattapan/Dorchester, South Boston
- ▶ Urban Gateways: Haverhill, Lawrence, Lowell, Waltham, Framingham, Salem, Lynn, Brockton, Woburn/Melrose/Stoneham

There is a backlog of State of Good Repair projects

Proposed interventions and solutions

The projects and programs in Focus40 are listed below, according to their respective time horizon.

Table: Focus40 Projects and Programs

		We’re Doing (Commitments through 2023)	We’re Planning (Next Priorities through 2040)	We’re Imagining (Big Ideas)
Systemwide	Accessibility & Paratransit	<ul style="list-style-type: none"> • Plan for Accessible Transit Infrastructure (PATI) Plan Completion • PATI Early Action Bus Improvements • PATI Early Action Rapid Transit Commuter Rail Improvements 	<ul style="list-style-type: none"> • PATI Improvements at Surface Green Line Stops • PATI Accessibility Improvements for Commuter Rail • Vertical Transportation Program 	<ul style="list-style-type: none"> • Leveraging Emerging Technologies
	Customer Experience	<ul style="list-style-type: none"> • Automated Fare Collection (AFC 2.0) • Partnerships for Improved First-Mile/Last-Mile Connections • Stop and Station Improvements (Wayfinding, Communications, and Lighting) Phase 1 • Digital MBTA (Travel Planning and Performance Improvements) Phase 1 	<ul style="list-style-type: none"> • Digital MBTA (Travel Planning and Performance Improvements) Phase 2 • Stop and Station Improvements (Wayfinding, Communications, and Lighting) Phase 2 • Platform Barriers and Doors Pilot Program • Multi-Modal System Access and Parking Improvements 	
	Resiliency	<ul style="list-style-type: none"> • Systemwide Climate Change Vulnerability Assessments • Blue Line Resiliency and Adaptation • Green Line Portal Protection at Fenway • Charlestown Seawall • Adaptation Strategies for Priority Infrastructure, in Collaboration with Municipalities 	<ul style="list-style-type: none"> • Resilient Power Supply • Incremental Implementation of the Systemwide Climate Change Vulnerability Assessments 	

		We're Doing (Commitments through 2023)	We're Planning (Next Priorities through 2040)	We're Imagining (Big Ideas)
Modes & Services	Bus 2040	<ul style="list-style-type: none"> • Municipalities • Modes & Services • Bus 2040 • Better Bus Project: Current Route Network Improvements • Bus Network Redesign Process • Partnerships for Bus Priority • Accessible Bus Stations • Modern Bus Stops and Amenities • Bus Fleet Replacement and Expansion (Procurement and Maintenance Facility Reconfiguration) • Zero-Emission Bus In-Service Testing 	<ul style="list-style-type: none"> • Phased Conversion to Zero-Emissions Fleet and Facilities (Maintenance Facilities and Fleet Procurement) • Implementation of Network Redesign (New or Enhanced Services and Expanded Fleet) • Priority Bus Rapid Transit Corridors 	<ul style="list-style-type: none"> • Autonomous Bus Shuttles
	Silver Line 2040	<ul style="list-style-type: none"> • Silver Line Fleet Replacement (Procurement and Maintenance Facility Reconfiguration) • Silver Line Washington Street Improvements • Transit Priority Infrastructure in the Seaport 	<ul style="list-style-type: none"> • Expanded Silver Line Fleet • Bus Rapid Transit through Everett • Infrastructure Upgrade in Silver Line Tunnel 	<ul style="list-style-type: none"> • Silver Line Tunnel Extension Under D Street in the Seaport
	Blue Line 2040	<ul style="list-style-type: none"> • Resiliency: Planning and Early Actions • Reliability Centered Vehicle Maintenance Program 	<ul style="list-style-type: none"> • Blue Line Capacity and Reliability Improvements • Resiliency: Further Implementation • Red-Blue Connector 	<ul style="list-style-type: none"> • Blue Line Connection to Red Line and Beyond • Blue Line Extension to Lynn
	Green Line 2040	<ul style="list-style-type: none"> • Green Line Transformation: State of Good Repair Projects • Green Line Transformation: Fleet Planning • Green Line Extension to Somerville and Medford • Surface Green Line Stop Consolidation • Surface Green Line Transit Signal Priority • Green Line Train Protection • Green Line Extension to Mystic Valley Parkway Final Environmental Impact Report • Accessibility Upgrades at Hynes and Symphony Stations 	<ul style="list-style-type: none"> • Green Line Transformation Phase 2: New Fleet, Upgraded Infrastructure and Maintenance Facilities • Green Line Transformation Phase 3: Expanded Capacity on D and E Branches (2-car Trains) • Surface Green Line Optimization 	<ul style="list-style-type: none"> • Green Line Transformation Phase 4: Expanded Capacity on B and C Branches (2-car Trains) • Green Line Extension to Hyde Square • Downtown Superstation • Green Line Extension to Mystic Valley Parkway, Somerville/Medford

		We're Doing (Commitments through 2023)	We're Planning (Next Priorities through 2040)	We're Imagining (Big Ideas)
Place-Based Service Additions	Orange Line 2040	<ul style="list-style-type: none"> Orange Line Systemwide Improvement Program: Fleet Replacement and Maintenance Facility Upgrades Orange Line Systemwide Improvement Program: Capacity and Reliability Improvement (4.5-Minute Headways) 	<ul style="list-style-type: none"> Additional Capacity Improvements (3-Minute Headways) 	<ul style="list-style-type: none"> Sullivan Square Superstation (Commuter Rail/ Orange Line/Silver Line) Orange Line Extensions (Everett, Roslindale) Downtown Superstation
	Red Line 2040	<ul style="list-style-type: none"> Red Line Systemwide Improvement Program: Fleet Replacement and Maintenance Facility Upgrades Red Line Systemwide Improvement Program: Capacity and Reliability Improvements (3-Minute Headways) Red Line South Improvements: Wollaston Station, TOD, Parking Garages Mattapan High-Speed Line: Reimagining and Short-Term Improvements 	<ul style="list-style-type: none"> Strategic Improvements to Support Future Capacity Increases Mattapan High-Speed Line: Implement of Reimagining Red-Blue Connector 	<ul style="list-style-type: none"> Blue Line Connection to Red Line and Beyond
	Commuter Rail 2040	<ul style="list-style-type: none"> Rail Vision (Study and Decision on Service Alternatives) South Coast Rail Phase 1 North Station Drawbridge Bi-Level Coach Procurement Locomotive Upgrade and Replacement Ruggles Station Upgrades Positive Train Control 	<ul style="list-style-type: none"> Tower 1 Upgrade Exploration of Commuter Rail Electrification Pilot Program Station Investments (Infill Stations, Connections to Rapid Transit) Regional Multi-Modal West Station and Midday Train Layover Double and Triple Tracking to Add Capacity South Coast Rail Full Build 	<ul style="list-style-type: none"> Full Electrification
	Water Transportation 2040	<ul style="list-style-type: none"> Hingham Infrastructure Improvements New Ferry Service Pilot Programs Fleet Expansion to Four Ferries Studies: Transit Action Plans for Priority Places (Seaport, Allston, Lynn) 	<ul style="list-style-type: none"> Expanded and Better Integrated Multi-Provider Water Transportation Network Place-Based Service Expansions Based on Pilot Programs and Transit Action Plans 	<ul style="list-style-type: none"> Full Implementation of an Expanded, Comprehensive, Multi-Provider Ferry Network Full Implementation of Place-Based Transit Expansion Programs
Notes: See Focus40 pages 25-59 for more information				

Forces that will impact the region's future

- ▶ Rate of urbanization has been accelerating, but uncertain if trend will continue
- ▶ Housing prices have been increasing dramatically especially around transit, but housing construction has increased also. Therefore, the future of housing prices and locational decisions of low-income households is uncertain.
- ▶ New rideshare, bike share, and mobility options, and other changes in transportation technology and business models may disrupt the transportation system, but future rates of adoption of new mobility are unclear.
- ▶ Impacts of climate change are uncertain.

Transportation

Choices for Stewardship: Recommendations to Meet the Transportation Future

Author(s): MA Commission on the Future of Transportation in the Commonwealth

Date: 2018

Link: <https://www.mass.gov/orgs/commission-on-the-future-of-transportation>

Brief Description

Choices for Stewardship reviews and makes recommendations to meet future transportation needs and challenges between 2020 and 2040 to the Governor, Lieutenant Governor, and other decision makers, as required by Governor Baker's Executive Order No. 579 (2018).

Summary and Potential Relevance to MetroCommon

Choices for Stewardship is divided into three sections:

- ▶ **Facts, Trends, & Issues:** A detailed assessment of demographic, land use, transit, active transportation, mobility service, autonomous and connected (AV/C), climate change, resilience, and transportation electrification facts and trends supported by an entire volume of data and charts
- ▶ **Scenario Planning:** A discussion of four potential future scenarios based on differences in technology adoption and land use development patterns
- ▶ **Commission Recommendations:** A list of key challenges and 18 recommendations based on 1) modernizing infrastructure; 2) preparing and supporting innovation in mobility technologies and services; 3) mitigating and adapting to climate change; 4) integrating land use, transportation, and economic development; and 5) strengthening transportation governance and financial structures. For each recommendation, there is a brief description, explanation of the need, and suggested initial steps.

Overall, the Commission suggests a shift in transportation planning from responding to the needs of vehicles to the needs of people. Although the Commission expects continued and increased disruptions in the transportation system from new mobility technology and services, it also assumes that travel will continue to occur on existing infrastructure of bridges, roads, and sidewalks. Therefore, new approaches are needed for designing and managing existing infrastructure to meet new challenges of population growth, climate change, and congestion.

Freight was outside of the scope of the plan, as was marine transportation and air travel. The Report explicitly recognizes that the impact of the recommendations on low-income populations and communities of color have been and should be considered; however, none of the recommendations target racial or social justice. Although the recommendations may have great influence on the Boston region's future, the report does not include any commitments or identify implementing agencies, therefore it is difficult to discern its potential impact.

Detailed Review Findings

Regional challenges and opportunities

The Commission was charged with investigating the following topics:

- ▶ Climate and Resiliency
- ▶ Transportation Electrification
- ▶ Autonomous and Connected Vehicles
- ▶ Transit and Mobility Services
- ▶ Land Use and Demographics

The Report includes an entire volume of key facts and trends: [Choices for Stewardship: Background Books – Facts, Trends, & Issues](#). Some of the key demographic, land use, transportation trends considered include:

- ▶ Boston region is one of a few metropolitan areas in the nation where the central city is growing more quickly than is its suburbs. The region accounts for 67% of population growth since 2010
- ▶ Municipalities with high-frequency subway service accounted for 42 percent of the state’s net job growth in the last decade.
- ▶ Ridership on MBTA and state’s Regional Transit Authorities (RTAs) has been declining for the past several years, except ridership on the MBTA Blue Line and Commuter Rail has increased since 2015, as has ridership for MetroWest Regional Transit Authority
- ▶ Passenger vehicles account for 20% of GHGs in Massachusetts in 2015, and transportation sector emissions are projected to increase.
- ▶ In 2017, 1.4 percent of all light-duty vehicles sold in the Commonwealth were electric.
- ▶ Mobility as a Service (MaaS) is paradigm shifting, and yet transportation infrastructure will likely remain as it does today.

Some of the challenges identified in the Report include:

- ▶ The transportation system is inequitable. Those who don’t have access to or do not drive a car spend more time and money commuting, and sometimes are unable to access jobs.
- ▶ Transportation system needs to move more people in fewer vehicles, either through transit or high occupancy vehicles.
- ▶ Electrifying passenger vehicles is necessary but will not be sufficient in meeting the Commonwealth’s goal of reducing emissions 80% by 2050
- ▶ Infrastructure needs to be more resilient to sea level rise, frequent and violent precipitation, and hotter summers

The Commission developed four potential future scenarios, as listed below, based on differences in 1) technology adoption and 2) distribution of jobs and housing.

- ▶ **Gridlock:** Concentrated growth in Boston region without expansion of transportation capacity
- ▶ **Vibrant Core:** Concentrated growth in Boston region with new transportation capacity and technologies results in a vibrant metro area
- ▶ **Multiple Hubs:** Concentrated growth in several cities with new transportation capacity and technologies results in lower cost housing and job opportunities outside of Boston
- ▶ **Statewide Spread:** Dispersed growth as importance of physical location has diminished with advances in technology, including C/AVs.

Proposed interventions and solutions

The Commission made 18 recommendations grouped into 5 themes:

1. Modernize existing state and municipal transit and transportation assets to more effectively and sustainably move more people throughout a growing Commonwealth.

- ▶ Prioritize investment in public transit
- ▶ Transform roadways and travel corridors to prioritize person-throughput rather than vehicle-throughput
- ▶ Better manage traffic congestion, including improvements to transit and consideration of congestion pricing.

2. Create a 21st century “mobility infrastructure” that will prepare the Commonwealth and its municipalities to capitalize on emerging changes in transportation technology and behavior

- ▶ Establish a Commonwealth Transportation Technology Transformation Initiative to partner public and private resources with innovators
- ▶ Support and accelerate efforts to consume transportation differently through developing policies related to ride-sharing, vehicle-sharing, Mobility as a Service, on-demand mobility, and micro-mobility
- ▶ Promote a statewide telecommunications infrastructure to support transportation technologies, including connected and autonomous vehicles
- ▶ Develop a strategy to support connected and autonomous vehicles (C/AVs) through an interagency C/AV Committee and potential legislation ensuring safe and reliable deployment of C/AVs
- ▶ Enable and promote a ubiquitous electric charging (and/or alternative fuel) infrastructure

3. Substantially reduce GHG emissions from transportation sector in order to meet Commonwealth's Global Warming Solutions Act (GWSA) commitments, while also accelerating efforts to make transportation infrastructure resilient to a changing climate

- ▶ Establish a goal that all new cars, light duty trucks, and buses sold in MA will be electric by 2040
- ▶ Establish a regional, market-based program to reduce transportation sector GHG emissions, and explore the adoption of a regional Low Carbon Fuel Standard
- ▶ Make transportation infrastructure resilient to a changing climate by developing vulnerability assessments for all publicly-owned or funded transportation infrastructure, as well as statewide design standards
- ▶ Ensure sufficient electric capacity

4. Coordinate and modernize land use, economic development, housing, and transportation policies and investment in order to support resilient and dynamic regions and communities throughout the Commonwealth

- ▶ Adopt dense, mixed-used, and transit-oriented land use policies
- ▶ Enable Gateway Cities and the regions they anchor to compete for residents and jobs by providing them with MassDOT, MBTA, and RTA service
- ▶ Coordinate the planned reinvention of the MBTA commuter rail system with local, regional, and state land use and economic development strategies to increase ridership and interconnected service
- ▶ Provide better mobility options in rural communities

5. Make changes to current transportation governance and financial structures in order to better position MA for the transportation system that it needs in the next years and decades

- ▶ Prepare MassDOT and other transportation-related entities to effectively oversee a changing transportation system by considering organization changes to MassDOT, MBTA, and RTAs
- ▶ Develop a fiscally sound and responsible transportation resource plan

Forces that will impact the region's future

- ▶ Massachusetts population is expected to grow by 600,000 residents between 2020 and 2040
- ▶ Technology is changing rapidly and will be disruptive. Connected vehicles (i.e. vehicles that communicate with road and traffic infrastructure) and autonomous vehicles are being developed. The projections for when the technologies will be adopted suggest that from 19-75% of all vehicles on the road will not require humans by 2040. CAVs have the potential to increase safety, affect roadway capacity, and change how, where, and when people travel and where they live and work. In addition, C/AVs will be a huge source of data, which should be handled and stored thoughtfully.

- ▶ Increasing use of transportation network companies (TNCs)
- ▶ The US Fourth National Climate Assessment (November 2018) projects that the Northeast will see the largest temperature increases in the contiguous US.
- ▶ EV adoption is expected to increase, requiring a regional electricity grid able to consistently supply sufficient power and a comprehensive network of charging facilities.

Transportation

DRAFT destination2040: 2040 Long-Range Transportation Plan of the Boston Region MPO

Author(s): Central Transportation Planning Staff

Date: 2019

Link: <https://www.ctps.org/data/pdf/plans/LRTP/destination/Destination-2040-LRTP-DRAFT-072519.pdf>

Brief Description

Destination 2040 identifies goals, evaluates needs, and sets priorities to guide investments, including from the federal government, in the region's transportation network.

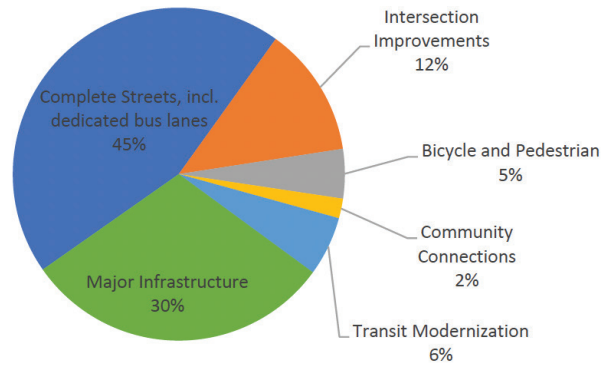
Summary and Potential Relevance to MetroCommon

Destination 2040 outlines a vision, goals, and objectives associated with Safety, System Preservation and Modernization, Capacity Management and Mobility, Clean Air and Sustainable Communities, Transportation Equity, and Economic Vitality for all modes, including goods movement. In addition, a Needs Assessment was conducted to help the MPO decide which projects to fund. The Needs Assessment includes information about how the region's surface transportation system is used now; projections of how it may be used in the future; how it interacts with land use conditions and the environment; and how well it serves low income, minority, and other historically underserved populations. The Assessment found that the system requires extensive maintenance and modernization, as well as safety improvements particularly for pedestrians and bicyclists.

The long-range transportation plan prior to Destination 2040 shifted away from capital expansion projects to smaller investments in operations, management, and maintenance; Destination 2040 continues this practice and adds new emphasis on resilience and transportation equity. That said, as shown in the chart below, most of the funding is planned for large road projects and dedicated bus lanes. For example, the "Major Infrastructure" program includes the "Interchange Modernization Program" to improve freight access, including on roadways designed as complete streets. The MPO has designated all the MBTA's transit capital funding to maintenance, accessibility improvements, and system enhancements. Project costs are expected to outpace available revenues resulting in diminishing buying power in future years.

Destination 2040 has direct impact on development potential and the growth patterns of the region.

Funding Distribution for *Destination 2040* Investment Programs



Detailed Review Finding

Regional challenges and opportunities

Destination 2040 includes a Needs Assessment based on data analysis and public outreach that can be found in [Chapter 2: Transportation Needs in the Boston Region](#) of the plan. Some of the challenges and opportunities identified in the Needs Assessment include:

► Safety

- Fatalities and injuries from roadway crashes have declined over past 5 years, however number of pedestrian- and bicycle-involved crashes is increasing
- Unknown impact of connected and autonomous vehicle (C/AV) technology on safety

► System Preservation

- 69% of roadways are in good condition, 25% in fair, and 6% in poor
- Sidewalk locations and conditions are unknown; neither the MPO nor MassDOT track data
- Not all of the transit systems are in a state of good repair
- Many express highways are built to outdated design standards for trucks hauling freight
- Some transportation infrastructure is vulnerable to flooding and other hazards

► Capacity Management and Mobility

- Congestion on expressways, interchanges, arterials, and bottleneck locations, which impacts goods movement
- Uncertain impacts of C/AV technology, Transportation Network Companies, and shared mobility
- Lack of data on various freight issues
- Lack of transit capacity and reliability

► **Clean Air and Sustainable Communities**

- Need to reduce CO2 emissions and other air pollutants

► **Transportation Equity**

- Lack of transit service for reverse commutes and off-peak commutes
- Unreliable rapid transit and bus service
- Geographical gaps in transit service
- Inadequate transit access for elderly and youth
- Lack of first-mile and last-mile connections
- Non-ADA compliant sidewalks

► **Economic Vitality**

- Lack of affordable housing near transit
- Lack of multi-modal capacity near infill development areas
- Lack of park-and-ride capacity
- Congestion on regional roadways which delays goods movement
- Contested curb space for trucks and autos

Proposed interventions and solutions

The MPO plans to invest in the following existing, expanded, and new programs:

Table: Destination 2040 Investment Programs

Investment Program	Description	Dedicated funding	Percent of total funding
Complete Streets, incl dedicated bus lanes (expanded program)	Roadway corridor modernization; Dedicated bus lanes and associated transit infrastructure; Climate resiliency improvements	\$1,296,464,600	45%
Intersection Improvements (existing program)	Signal and geometry improvements	\$367,057,800	13%
Major Infrastructure (existing program)	(i.e. >\$20 million): Transit expansion; Major Complete Streets projects; Interchange modernization	\$877,897,900	20%
Unassigned		\$283,798,100	10%
Bicycle and Pedestrian (existing program)	Expansion of on-street and off-street bicycle and pedestrian networks; Street crossing improvements	\$139,360,300	10%
Transit Modernization (new program)	MPO discretionary funding flexed to transit modernization projects such as station improvements	\$167,665,900	4%
Community Connections (expanded program)	First- and last-mile connections; Parking managements; Education and wayfinding	\$55,413,900	2%
Highway Funds flexed to Transit		\$49,131,200	2%

As shown in the chart on the first page, approximately 30 percent or \$878 billion is planned for major infrastructure projects, which are listed below.

Table: Some of the Major Infrastructure Projects in Destination 2040

Project Name	Location	Current Cost (billion)
Reconstruction of Rutherford Ave, from City Square to Sullivan Square	Boston	\$152.0
Roadway, ceiling, and wall reconstruction, new jet fans, and other control systems in Sumner Tunnel	Boston	\$126.5
Intersection improvements at Route 126 and Route 135/MBTA and CSX Railroad	Framingham	\$115.0
McGrath Boulevard	Somerville	\$66.2
Western Ave	Lynn	\$36.2
Route 4/255 (Bedford St) and Hartwell Ave	Lexington	\$30.6
Bridge replacement, Route 27 (N Main St) over Route 9 (Worcester St) and interchange improvements	Natick	\$25.9
Reconstruction of Route 1A (Main St)	Walpole	\$19.9
Bridge replacement, New Boston St over the MBTA	Woburn	\$15.5

According to federal Title IV and environmental justice requirements, the MPO conducted an analysis of whether minority and low-income populations would be disproportionately affected by the projects in Destination 2040 and found that disparate impacts from the projects would not be likely. In addition, Destination 2040 meets national clean air requirements and is consistent with state clean air goals. In terms of greenhouse gases (GHG), if all the projects programmed statewide in MPOs' LRTPs are built, carbon dioxide will be lower than if the projects are not built both in 2020 and 2040. There is no analysis of the individual impacts of Destination 2040 on GHG emissions.

Forces that will impact the region's future

See the discussion of the Needs Assessment above.

Water and Habitat Resources

MA Water System Master Plan

Author(s): MA Water Resources Authority (MWRA)

Date: 2018

Link: <http://www.mwra.com/publications/masterplan/2018/mp-water.pdf>

Brief Description

The 2018 Master Plan identifies the regional water and wastewater system needs over the next 40 years, including 344 projects estimated at \$5.7 billion.

Summary and Potential Relevance to MetroCommon

The plan details both the water system and wastewater system needs. The water system section of the plan includes analysis of treatment, the transmission system, and the metropolitan system. The wastewater system section of the plan includes analysis of major facilities (e.g. Deer Island Treatment Plan, Residuals Pellet Plan, remote headworks, sewers, pump stations, etc.).

MWRA's current water and wastewater systems are expected to sufficiently meet future demand. The plan projects an increased use of water by current partial users and increased population within the existing service area. There are no service areas expansions in the plan, although the following communities have inquired about potentially purchasing their water through MWRA: Town of Ashland, Lynnfield Center Water District, Town of Burlington, and Union Point (near former Weymouth Naval Air Station). The plan states: "Because the projections are conservative, plans for system expansion can be evaluated without jeopardizing the reliable supply of current and future users within the service area." Climate change is not expected to have significant impacts on MWRA's water supply. Increased precipitation from climate change might increase reservoir levels, and the MWRA reservoirs have the capacity for increased water levels. Droughts induced by climate change may result in communities outside of the MWRA service area turning to MWRA for water supply, and the MWRA expects to have sufficient supply to meet increased demand.

The wastewater system also is expected to be sufficient in 2040, based on moderate projected increases in population and employment and expected improvements in infiltration and stormwater management at the community level. However, storm surge and sea level rise resulting from climate change will affect several collection systems and facilities. The MWRA assumes any significant flood mitigation efforts will be undertaken as each facility is rehabilitated.

Regional challenges and opportunities

▶ Water

- MWRA's water system includes its source reservoirs, treatment facilities, transmission lines, and distribution system facilities and pipelines.
- Average reservoir withdrawals have dropped by more than 50 percent from a peak in 1980, even as the service area grew in population. Both the Quabbin and Wachusett reservoirs – the main sources of water – are expected to continue to provide adequate supply to meet the MRWA needs.

▶ Wastewater

- MWRA's wastewater system is a complex network receiving flow from 43 communities totaling 2.2 million people and covering an area of about 500 square miles, including the City of Boston.
- There has been a net reduction of 20% in electricity purchases between 2006 and 2017 due to renewable electricity production and energy efficiency improvements. It is expected that up to 90% of power needs at Deer Island will be met with on-site sources (e.g. digester gases).

▶ Service Area Expansion

- Several communities have approached MWRA about purchasing MWRA water, but there are no active applications, although the Town of Ashland has taken preliminary steps toward MWRA admission

Proposed interventions and solutions

▶ Water

- All projects identified in the MWRA are either already programmed in the FY19 Capital Improvement Program (CIP) (total of \$3.7 billion) or are recommended for future CIPs (\$2.0 billion). Approximately 70% of the water system needs are system redundancy costs, such as the Metropolitan Tunnel redundancy projects. Water supply redundancy projects provide for system reliability, operational flexibility, and enhanced security. The MWRA also emphasizes the need to continue the systematic cleaning and lining of older unlined cast iron mains to address potential water quality degradation concerns and related health risks.

▶ Wastewater

- The plan does not include any recommendations for future large scale capital projects. Regular maintenance and replacement will become increasingly costly as the facilities age. About half (\$1.5 billion) of the wastewater needs identified in the MWRA are programmed in the FY 19 CIP and the other half (\$1.6 billion) are recommended for future consideration. Approximately 94% of the

wastewater needs identified are rehabilitation or replacement of existing facilities at the end of their useful life.

- The Deer Island Treatment Plant is the centerpiece of the MWRA's investments to reduce pollution in the Boston harbor. Sea level rise was accounted for in the design of Deer Island Wastewater Treatment Plant.

Forces that will impact the region's future

Two major trends will impact future demand: continued increases in efficiency and increase in population and employment. The plan is based on the conservative assumption that there will be no future increases in efficiency. The population served by MWRA in 2040 is assumed to have 362,000 more residents or increase by 16% in residential population and to have 131,000 more jobs or increase by 10% in number of jobs.

Due to climate change, an increase in intense storms and more frequent periods of drought are expected. According to most projections, rainfall will increase. The large storage volume of the Quabbin Reservoir is expected to be sufficient to capture the precipitation and inflow from intense storms and to store it for dry periods. Self-supplied communities may turn to MWRA for emergency water supplies. MWRA will monitor climate change impacts on rainfall, land cover, and structure design.

Changes to federal and state regulation may affect the water system, for example allowing additional communities to join the water system over the next decades.

Water and Habitat Resources

MA Sustainable Water Management Initiative

Author(s): Executive Office of Energy and Environmental Affairs (EEA), Department of Environmental Protection (MassDEP), Department of Fish and Game, Department of Conservation and Recreation

Date: 2012

Link: <https://www.mass.gov/files/documents/2016/08/wf/swmi-framework-nov-2012.pdf>

Brief Description

The Sustainable Water Management Initiative (SWMI) establishes a framework to guide MassDEP's permitting of water withdrawals under the Water Management Act (WMA).

Summary and Potential Relevance to MetroCommon

The goal of the SWMI is to develop and implement a water allocation program that supports ecological needs while meeting the needs of economic growth. It was developed in response to conflict over MassDEP's water allocation permitting process due to the recreation on and ecological health of rivers and streams being compromised. The SWMI policy framework is intended to be incorporated into water withdrawal permits, issued by MassDEP under the Water Management Act.

The SWMI proposes that withdrawal requests will be assessed against a "baseline" reference point, as well as the following new elements:

- ▶ "Safe Yield" that defines the maximum dependable withdrawal that can be withdrawn during drought, and a
- ▶ "Seasonal streamflow criteria" that recommend maximum levels of water withdrawals to protect habitat.

The SWMI guidance will be applied to:

- ▶ Permitting for groundwater withdrawals
- ▶ Permitting for surface water withdrawals
- ▶ Offset and mitigation measures to minimize and compensate for impacts of increased water withdrawals
- ▶ Restrictions on non-essential outdoor water use
- ▶ Permits that incentivize public water system development of redundant sources
- ▶ The 20-year permit renewal process between EEA agencies and water users

Detailed Review Finding

Regional challenges and opportunities

- ▶ Disputes over how MassDEP makes permit decisions allocating water under the Water Management Act has led to litigation and delays in permit decisions.

Proposed interventions and solutions

The SWMI establishes three components of the permitting decision:

- ▶ **Safe Yield:** maximum amount of water withdrawal that can be allowed at a major basin scale during drought conditions. Calculated as 55% of the Drought Basin Yield plus Reservoir Storage Volumes
- ▶ **Seasonal Streamflow Criteria:** guides WMA permitting decisions seasonally and at a sub-basin scale to maintain the magnitude and timing of the natural flow regime. Streamflow criteria was developed for five periods for each of the 1,400 sub-basins delineated by the USGS
- ▶ **Baseline:** a reference point against which a request to withdraw water will be compared to determine whether the request represents an increase in withdrawals from the basin

In addition, mitigation will be required according to the following principles:

- ▶ “Acknowledge and preserve critical existing water supply areas and legitimate future need
- ▶ “Minimize existing water withdrawal impacts in already impacted areas, taking account cost and feasibility
- ▶ “Mitigate increased withdrawals commensurate with impact, taking into account cost and feasibility
- ▶ “Protect quality habitats and avoid further degrading unhealthy aquatic habitats”

Forces that will impact the region’s future

Forces such as climate change, increases in population, or changes to development patterns are not discussed.

Water and Habitat Resources

Massachusetts' Water Infrastructure: Toward Financial Sustainability

Author(s): Water Infrastructure Finance Commission

Date: 2012

Link: <https://files.engineers.org/file/WIFC-Report-F5D7.pdf>

Brief Description

Toward Financial Sustainability presents the Water Infrastructure Finance Commission's (WIFC) findings on water infrastructure funding needs and recommendations for financing those needs going forward.

Summary and Potential Relevance to MetroCommon

The WIFC was created by the MA Legislature in 2009 to address water infrastructure funding needs. It found that MA was facing a \$10.2 billion gap in resources for drinking water and an \$11.2 billion gap in resources for wastewater projects, based on costs of capital investment, repair and replacement, operations, maintenance and debt service. The WIFC makes specific recommendations (full list on following pages) to reduce the gap, including efficiency and best management practices and assisting local entities in retiring their existing debt. The WIFC finds that the state's funding gap would be eliminated if the following three key programs were implemented:

- ▶ Municipalities, districts, and authorities adopt full-cost pricing combined with moderate, predictable rate increases
- ▶ Municipalities, districts, and authorities increase their sewer rates to 1.25% of their Median Household Income
- ▶ The state creates and funds a new Trust Fund with \$200 million to provide a mix of direct assistance, low interest loans, and grants to assist towns with their water infrastructure needs

Detailed Review Finding

Regional challenges and opportunities

Water utilities face the following cost challenges:

- ▶ Aging systems need investments
- ▶ Systems improvements needed to meet stronger environmental and public health standards
- ▶ Lack of state level control over Clean Water permits may be preventing smart planning and prioritization of resources
- ▶ Security and redundancy investments are required
- ▶ Costs are rising due to energy, chemical, and labor costs
- ▶ Many water utilities are not running at optimal efficiency
- ▶ Municipal debt is a growing burden

In the face of rising costs, revenues are not keeping pace for the following reasons:

- ▶ Federal and state funding sources are trending downward
- ▶ Rates vary widely and do not always cover the full cost of service
- ▶ Unanticipated financial effects of water conservation have an impact on utilities' bottom lines
- ▶ Affordability is an important issue for many communities

Proposed interventions and solutions

The WIFC recommends:

▶ 1. Increasing funds available for water-related infrastructure at all levels

- Sustain current programs and investments at the state and federal level, including in particular state and federal contributions to the Water and Sewer State Revolving Funds
- Establish a new Trust Fund, to be funded annually at \$200 million and used for a mixed program of direct payments to cities and towns, low interest loans, and grants
- Incent all communities, authorities, and districts to utilize rate structures that reflect the full cost of water supply and wastewater treatment

▶ 2. Reducing costs and find efficiencies

- Provide strong incentives for municipalities, districts, and authorities to use best management practices
- Encourage enterprise funds for stormwater mitigation
- Encourage appropriate regional solutions starting with management and technical assistance and followed where appropriate with system integration
- Encourage sustainable infrastructure
- Use a watershed approach when making funding decisions
- Encourage efficient water and energy use
- Require adoption of best management practices in applications for state revolving funds and other state grant loans
- Assist towns in the adoption of best management practices through changes in law, technical assistance, and other incentives

▶ 3. Assisting municipalities, districts, and authorities in retiring their existing debt

- Commit to newly structured debt assistance program funded at \$50-\$60 million annually through the General Fund. While the Commission strongly recommends that communities approach future debt by using full-cost pricing, it recognizes that some communities will need assistance in retiring their debt

▶ 4. Addressing the issue of affordability

- Identify creative ways to address affordability for municipalities and individual ratepayers. Measure their local contribution and commitment using a ratio of average household annual utility cost to the community's Median Household Income
- Consider making SRF loan decisions more need-based by considering the Median Household Income ration in the selection criteria for loans, grants, interest rates, and principal forgiveness
- Seek new federal and state support to address affordability concerns

▶ 5. Promoting environmental sustainability

- Encourage investments and regulations that are aligned with environmentally sustainable principles:
 - Prioritize solutions that use technologies that are environmentally and financially sustainable over the lifetime of the assets
 - Promote water conservation and water reuse
 - Reduce the release of nutrients in watersheds
 - Encourage energy efficiency
 - Prioritize solutions that keep water within its basin while protecting water quality
 - Protect water sources through watershed protection programs
 - Encourage more effective management of water resources through long-term planning, optimization of resources, and management efficiencies
 - Encourage integrated resource management, where “wastes” are viewed as resources from which revenues can be generated
- Increase regulatory flexibility to better direct funding to projects that deliver the highest public benefit

▶ 6. Promote innovation

- Allocate resources for programs that mitigate the inherent risks in innovation by supporting pilot projects, proof of concept projects, and new technology
- Provide technical assistance to communities interested in innovative approaches
- Reduce regulatory barriers to innovation
- Implement alternative analyses that put innovative solutions on an equal footing with traditional approaches
- Consider ways to facilitate regulatory compliance and reduce third-party litigation to address the economic risk of pilot innovative projects
- Invest in MA as a hub of innovation in the field of water, wastewater, and stormwater management and technology

Forces that will impact the region's future

Not discussed.

Water and Habitat Resources

MA State Wildlife Action Plan

Author(s): MA Division of Fisheries and Wildlife (DFW)

Date: 2015

Link: <https://www.mass.gov/service-details/state-wildlife-action-plan-swap>

Brief Description

The State Wildlife Action Plan identifies the 570 Species of Greatest Conservation Need (SGCN) in the Commonwealth, the 24 types of habitat that support those species, and the actions necessary to conserve them, per federal law.

Summary and Potential Relevance to MetroCommon

The SWAP addresses the following eight required elements per federal law:

- ▶ Information on the distribution and abundance of species in greatest need of conservation
- ▶ Descriptions of locations and relative condition of key habitats and community types essential to conservation of those species
- ▶ Description of problems which may adversely affect the identified species or their habitats, and priority research and survey efforts
- ▶ Description of conservation actions
- ▶ Proposed plans for monitoring
- ▶ Description of procedures to review the strategy
- ▶ Plans for coordinating the development, implementation, review, and revision of the plan with Federal, State, and local agencies and Indian tribes
- ▶ Broad public participation in the development and implementation of the plan

Approval of the plan is required to receive funds through the State Wildlife Grant Program. Given that 25% of land in the Commonwealth is protected from development, and there are new threats of invasive species and natural succession, the 2015 plan marks a shift to prioritize management of conserved land, as well as land acquisition. The 2015 plan also has greater discussion of climate change impacts on species and habitats, additions and deletions to the list of SGCN, increased recognition of the importance of regional conservation needs and the role for the DFW in meeting those needs; and a new BioMap2 which identifies the conservation footprint needed to conserve biodiversity.

Detailed Review Finding

Regional challenges and opportunities

- ▶ The MA SGCN are listed in SWAP [Chapter 3](#).
- ▶ The MA habitats of SGCN are identified, described, and mapped in SWAP [Chapter 4](#).

- ▶ The potential impacts of climate change on SGCN, as well as potential adaptation strategies are discussed in SWAP [Chapter 5](#).

Proposed interventions and solutions

An overview of the actions to be taken by DFW and that DFW encourages other partners to pursue are discussed in SWAP [Chapter 6](#). The actions identified fall into six categories:

- ▶ Conservation planning
- ▶ Habitat restoration and management
- ▶ Environmental Regulation
- ▶ Surveys and Inventories of the SWAP species and habitats
- ▶ Public Outreach

In addition, the DFW worked with the Nature Conservancy to develop [BioMap2](#) to protect the state's biodiversity in the face of climate change. BioMap2 incorporates strategies through spatial analysis to promote resistance and resilience of plant and animal populations and ecosystems, as well as to assist anticipated transformations caused by climate change and other stressors, as follows:

- ▶ **Resistance:** The ability of an ecosystem or population to persist and to remain relatively stable in response to climate change and other stressors. The concept of resistance is incorporated into BioMap2 for species like the Threatened Blanding's Turtle by identifying extensive habitat patches that support large populations, allow movement from wetlands to uplands, and allow movement among wetlands, all of which impart resistance to populations in the face of projected summer droughts, spring flooding, and other threats.
- ▶ **Resilience:** The ability of an ecosystem or population to recover from the impacts of climate change and other stressors. In many cases, ecosystems will change in species composition and structure in response to climate change; increased resilience supports an ecosystem's ability to adapt to climate change and maintain ecological function. For example, wetlands will likely experience changes in temperature and hydrological regime (i.e., the timing and amount of water) due to projected climate changes, resulting in changes in plant and animal composition. By selecting large, unfragmented wetlands that are well buffered, BioMap2 prioritizes wetlands that are best able to maintain function and support native biodiversity
- ▶ **Transformation:** The transition of an ecosystem or population to another ecological state in response to climate change and other stressors. BioMap2, recognizing such transformations are particularly likely along the coast, identifies low-lying, intact uplands adjacent to salt marshes to allow the migration of estuarine ecosystems upslope in the context of rising sea levels.

See the BioMap2 [Technical Report](#) for more information.

Forces that will impact the region's future

Climate change and invasive species.