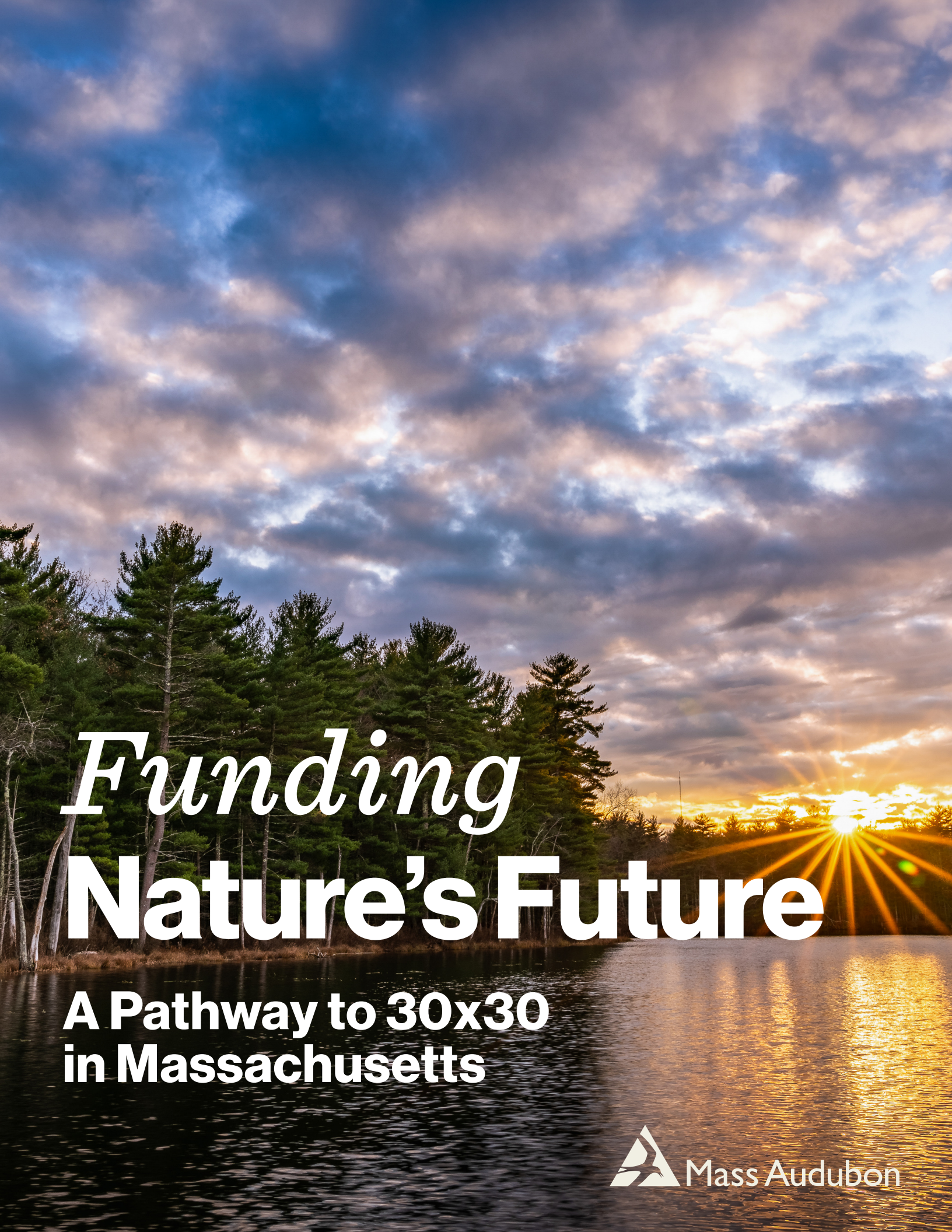

Funding Nature's Future

A Pathway to 30x30 in Massachusetts

Mass Audubon

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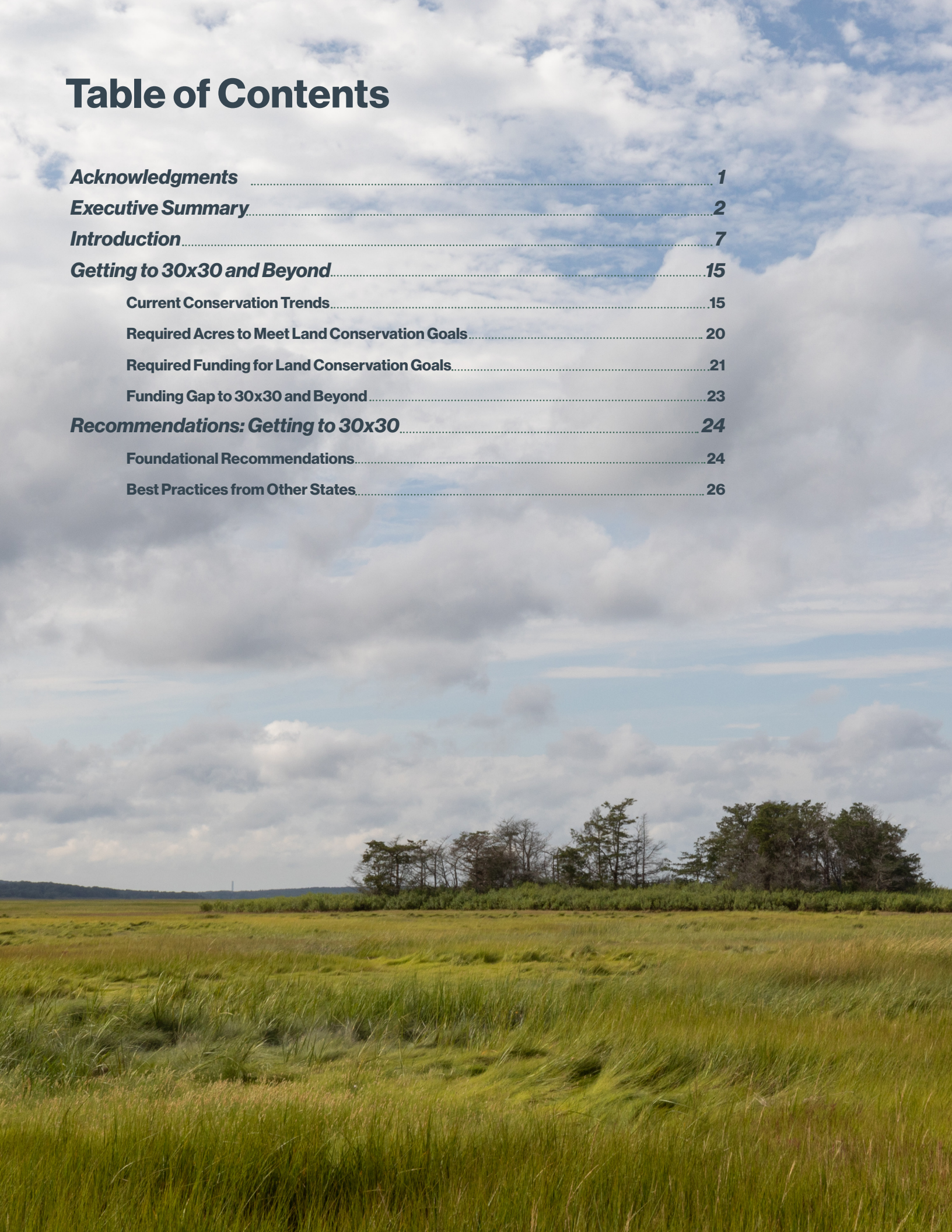

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Mass Audubon is the largest nature-based conservation organization in New England. Founded in 1896 by two women who fought for the protection of birds, Mass Audubon carries on their legacy by focusing on the greatest challenges facing the environment today: the loss of biodiversity, inequitable access to nature, and climate change.

With the help of our 160,000 members and supporters, we protect wildlife, conserve and restore resilient land, advocate for impactful environmental policies, offer nationally recognized education programs for adults and children, and provide endless opportunities to experience the outdoors at our wildlife sanctuaries.

Executive Summary

From the Berkshires to the Cape, forests, wetlands, streams and rivers, productive farmland, and special habitats like salt marshes represent Massachusetts's diverse landscape.

These lands hold irreplaceable value, providing clean water, clean air, food production, climate regulation, and access to nature and recreation for the people and wildlife who call the Commonwealth home. Protecting these natural resources is critical to ensuring that these benefits continue, and land protection is the most cost-effective method to do so.[1]

But, as a densely developed state with growing demand for housing, clean energy, and grid infrastructure, Massachusetts is losing forests, wetlands, and farmland to residential, commercial, and energy development—more than 10,000 acres every year. Land degradation resulting from development and climate change—leading to increased forest fires, disease, and invasive species, for example—is also a significant threat to the ability of these lands to deliver the full range of human and wildlife benefits. This underscores the importance of quality stewardship of land once protected.

The many benefits derived from the natural landscape need to be secured for future generations through policy and investments.

Recognizing the need to leverage natural landscapes for climate and other benefits, the Commonwealth established a goal of permanently protecting at least 30% of the state's land and waters by 2030 and at least 40% by 2050. The 30x30 goal will require over 100,000 additional acres of conserved land, while the 40x50 goal will require another 500,000+ acres of conservation once the 30x30 goal is met. Reaching these goals will require at least doubling the current pace of land protection—in terms of acres per year, this means going from roughly 10,000 to 20,000 or more acres of land protected annually.

The Commonwealth is in an excellent position to achieve these land protection goals—the state and its land conservation partners have already protected 28% of the Commonwealth and have a large pipeline of conservation projects ready to go. Further, through nation-leading policies and other efforts such as the Commonwealth's Resilient Lands Initiative, the Forests as Climate Solutions Initiative, and the anticipated Biodiversity Executive Order, the state has already demonstrated a strong commitment to increasing land protection and restoration to meet climate adaptation and mitigation goals as well as biodiversity targets.

To get to 30x30

Requires ~100,000 additional protected acres (20,000 acres annually) and at least $350 million per year in land conservation funding.

To get to 40x50

After the 30x30 goal is met, requires another ~500,000 additional protected acres (25,000 acres annually) and at least $400 million per year in land conservation funding.

What is needed is more state funding.

Conservation funding in the Commonwealth has been historically variable and inconsistent—declining over time from a high in 2008 of $45 million in state funding to $25-30 million in recent years—and it is woefully insufficient to reach the 30x30 and 40x50 land conservation goals. The Commonwealth spends the least amount of money per capita on parks and recreation and lags in per capita spending on conservation as compared with its neighboring New England states. Current spending from land conservation funding programs of the Commonwealth is roughly $25 million per year; adding in other public sources (i.e., local and federal funding) for conservation to the state-funded resources equates to about $50 million annually. Conserving the additional acres required to reach the 30x30 land conservation goal will require at least **$350 million** in total annual funding from now until 2030. This represents an additional $300 million per year *beyond current spending on conservation by the public sector.*

Why is protecting natural and working lands in the Commonwealth critically important?

Natural and working lands in the Commonwealth provide tremendous social, economic, and environmental benefits. Among these are:

- **Climate mitigation.** Healthy natural and working lands are an essential component of the state's plan to meet its net-zero goal by 2050—these lands already store the equivalent of the past 25 years of greenhouse gas (GHG) emissions in the state.[2] Ensuring that this carbon is securely stored and preventing the conversion of natural and working lands to development allows for continued removal of at least 10% of the Commonwealth's GHG emissions.[3]
- **Climate adaptation.** The Commonwealth's forests reduce stormwater runoff by almost 90% on a per acre basis, compared with a developed area,[3] and they filter more than 1.6 trillion gallons of water annually.[4] This saves the state from costly flood mitigation and water quality treatment practices. Similarly, marshes and wetlands attenuate damaging storms by absorbing water and storm energy, saving billions of dollars in rebuilding.
- **Human health and recreation.** Natural areas offer mental and physical health benefits to the people who can access them. This is true of parks, green spaces,[5] and wilder areas.[6] Recent research suggests that conserving 30% of nature globally could support 90% of nature's benefit to human well-being.[7]
- **Habitat and biodiversity.** Natural and working lands provide crucial habitat for more than 400 native plant and animal species protected under the state's Endangered Species Act.
- **Job creation and economic output.** The Commonwealth's forests support 38,000 jobs and nearly $10 billion in economic output;[8] 7,000 farms provide locally produced food and support 26,000 jobs in the state;[9] outdoor recreation supports more than 100,000 jobs and nearly $12 billion in value-added output.[10] Overall, every $1 invested in land conservation in the Commonwealth generates $4 in economic benefits to the state.[11]

Once the 30x30 goal is met, reaching the 40x50 goal will require around an additional 500,000 acres of land protected (around 25,000 additional acres per year) and at least $400 million annually from 2030 to 2050 (reflecting an additional $350 million per year beyond current public spending on conservation). These estimates are **multiples of the current public investment in conservation,** and it is possible that **the cost of the land conservation goals could grow if land values continue to rise.** The importance of meeting multiple goals through this work, including equity and environmental justice, will require land conservation across a broader range of land values and geographies such as more expensive urban and exurban areas.[12] It also includes **improving compensation to communities hosting high levels of tax-exempt protected lands,** especially those located in central and western MA, in order to improve their fiscal health and ability to support local services. These goals are also likely to add to total costs of reaching 2030 and 2050 conservation goals.

It is imperative therefore to **establish a dedicated annual funding source** and associated implementation strategies to meet our 30x30 goals and pave the way to achieve the much larger 40x50 goal. While these funding levels represent a significant increase over current spending on land conservation, there may be no other investment of public dollars that can return as many benefits. To put these levels of investment in context, achieving 30x30 will cost roughly $9 to $10 per resident each year until 2030; in comparison, annual spending on electricity by Massachusetts residents was nearly $6 billion in 2023, which equals more than $800 per Massachusetts resident.[13]

Implementing several key recommendations will create a durable framework for greater land conservation in the Commonwealth. The commitment to intensify conservation efforts and deploy more funding into projects is unmistakable across the many land conservation partners working to protect forests, wetlands, salt marshes, cranberry bogs, and urban parks and forests. This commitment must now be supported by increased funding, target-setting in state land protection initiatives, and greater equity and inclusivity to yield the quality of conservation the 30x30 goal intends—conservation that delivers biodiversity, climate resilience, and equitable access to nature for all residents of the Commonwealth.

With the administration change at the federal level, it is more important than ever for the Commonwealth to take the lead on funding land conservation and deepen the investment in critical climate, biodiversity, and equity outcomes. The following recommendations will allow the Commonwealth to establish the level and consistency of funding required to achieve its critical land protection goals.

Specifically, the Commonwealth should:

- **Establish a dedicated source of state funding for conservation.** Current state funding levels of around $25 million annually are inadequate contributions to the increase in conservation required to get to the 30x30 and 40x50 land protection goals. State sources of funding and bond-funded capital plan expenditures for conservation are unlikely to significantly increase, though they represent an important piece of the conservation funding pie. One-time infusions of federal COVID relief funds have been expended. Moreover, incremental increases in funding may be negated by rising land values. Massachusetts can do so much more to increase conservation funding, taking as examples the many other states that have established dedicated sources of funding to meet conservation goals through vehicles such as dedicating a percentage of existing sporting goods sales taxes.[14]

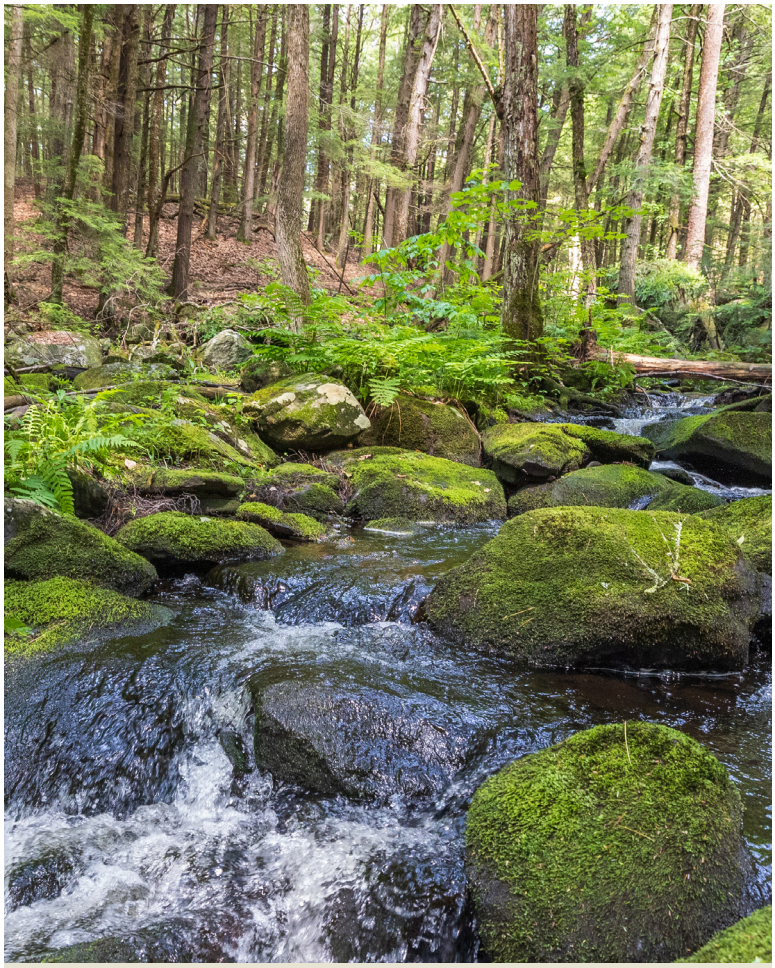
- **Set a clear, legally binding carbon removal goal to define natural and working lands' contribution to the state's Net-Zero climate mitigation goal for 2050.** The Commonwealth's landmark 2021 *Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy* established in law that each sector of the economy must meet a legally binding limit on GHG emissions each decade, in service of a statewide net-zero GHG emissions goal for 2050. Importantly, the law includes the natural and working lands sector as one that must contribute to net zero by 2050.[15]

  Forests, wetlands, and working lands in the Commonwealth remove 11 percent of annual GHG emissions currently, and the state's best estimate is that reaching net-zero emissions by 2050 could require carbon removal equivalent to roughly 15 percent of current GHG emissions. Moreover, carbon removal by natural processes is the most cost-effective option, with estimates for technological carbon removal (e.g., direct air capture, which is not yet commercially viable) ranging from $150-$200/ton CO2e within the next decade.[16] State policymakers should develop policies and incentives that recognize the value of natural lands as the lowest-cost carbon removal solution for 2050.

- **Grow public-private partnerships to leverage land protection resources.** The private land conservation sector (land trusts, conservation NGOs, and philanthropy from private donors) is taking increased action to fill spending gaps, including the recently launched $75 million Catalyst Fund for land conservation announced by Mass Audubon. Increased private investment presents a unique opportunity that should not be missed. If the Commonwealth commits additional, consistent, and reliable funding, the private sector can leverage those resources to accelerate the pace of conservation.

  For instance, if funds are reliable, then the private sector can secure loans, leverage Program-related Investments (PRI), and apply short-term capital to buy and hold land when landowners need it the most. Such dedicated and reliable funding takes many of the risks out of land protection that exist today, both landowner risks and private sector partner risks. Additionally, the public sector can create and formalize public-private partnerships through cooperative agreements and other means to best align resources, expand capacity, and take other actions that help each party meet ambitious and shared goals. Public-private partnerships are a key to accelerating the pace of land conservation in the Commonwealth, but they require greater and more reliable public funding to be successful.

- **Address equity concerns of Indigenous Peoples and local communities** by representing these voices and concerns within 30x30 land conservation planning and implementation activities. Land protection in the state has just begun to address historic disparities of Indigenous Peoples and communities with limited access to nature. Moreover, many rural communities that currently host high acreages of tax-exempt conservation lands feel burdened by challenges to fiscal viability. Future conservation based on conventional conservation priorities would simply avoid addressing these disparities. The Commonwealth's value of inclusive conservation must be at the forefront of 30x30 conservation activities and consideration of local voices from Indigenous Peoples and local community groups is critical to achieving a conservation vision for the state that ensures the benefits of conservation will flow equitably to multiple stakeholders. The state and land trust community must identify the groups statewide and within local geographies that need to be included in planning and implementing conservation and strengthen outreach and communication efforts through the ongoing natural resource planning and policy efforts of the Commonwealth.



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[14] We recognize the important contributions made by the private and philanthropic sectors on land conservation in the Commonwealth, but we do not include private sector spending in our estimates. Data on spending for land conservation from private sources is not systematically collected or available publicly. Further, private spending may have limitations such as geographic or thematic focus for land conservation, capacity limitations, and cannot be assumed as consistent or reliable to meet the 30x30 and 40x50 land conservation goals—private spending will also vary based on individual preferences and broader economic conditions. While private spending on land conservation will likely increase to leverage and match additional deployment of public funds, it cannot reliably fill the funding gap to meet statewide land conservation goals.

[15] US Energy Information Administration, *State Energy Data System.* Available at: https://www.eia.gov/state/analysis.php?sid=MA#31; US Census Bureau.

[16] Twenty-eight other states have dedicated annual funding sources for land protection (Trust for Public Land, 2023).

Introduction

We are losing nature and biodiversity at a sobering and accelerating rate.

Driven by human activities, the earth has lost 85% of wetland areas, 30% of forest areas, and more than half of coral reefs.[1] Scientists estimate that 1 million animal and plant species are currently threatened with extinction.[2] When we lose nature, we also lose the ecosystem services nature provides and that we depend on for our health and well-being: clean water, clean air, recreation, carbon sequestration and climate regulation, and habitat for species, to name but a few. Our economies depend on a healthy environment—industries such as agriculture, food and beverage production, tourism, and fisheries are highly nature-dependent—and more than half of global GDP (~$44 trillion) is moderately or highly dependent on nature.[3] It is no wonder, then, that biodiversity loss and ecosystem collapse was recently ranked by the World Economic Forum as one of the top three global risks to the world's economy, environment, and people over the next decade.[4]

The global 30x30 movement for land protection is a critical part of stemming the loss of nature.

Land protection is an important nature-based solution: Scientists have called for at least 40% of the earth's land and oceans to be under some form of protection by 2050 to protect biodiversity, safeguard the ecosystem services nature provides, and mitigate change.[5] Global agreements have coalesced around the urgency of delivering more land protection to people and wildlife. Flowing from the global targets, national and sub-national governments have been taking action to develop their own 30x30 goals and strategies to propel domestic conservation actions. The Commonwealth of Massachusetts set its own 30x30 agenda in 2022 (Boxes 1 and 2).

However, despite the tremendous benefits of this work, the costs of conservation are often cited to derail progress. The cost of stemming the loss of nature by 2030, the "nature finance" gap, has been estimated at an additional $700 billion annually over existing global spending on conservation.[6] Though a sizable gap, this global total comes in well under the $1.3 *trillion* in estimated direct subsidies that the oil and gas industry received in 2023.[7] Concerted focus will be required at the local, state, national, and global levels to identify and direct new sources of funding towards nature to overcome this significant, but manageable, financial need.

Box 1: 30x30 Conservation Goals

The "30x30" conservation goal is centered around biodiversity conservation and climate mitigation, adaptation, and resilience.

- **30x30 Globally:** Target 3 of the Convention on Biological Diversity's Kunming-Montreal Global Biodiversity Framework (GBF) established a target for governments to protect at least 30% of the earth's land and ocean areas by 2030.

- **30x30 in the United States:** In 2021, President Biden issued Executive Order 14008 "Tackling the Climate Crisis at Home and Abroad," which set a national goal of protecting 30% of land and 30% of ocean area by 2030 to address the climate change and biodiversity crises.[8] This commitment has been rescinded by the current administration.

- **30x30 in Massachusetts:** In 2022, the Commonwealth set its 30x30 goal through the *Clean Energy and Climate Plan for 2025 and 2030*.[9] The Commonwealth also articulated a 40x50 goal to permanently protect 40% of the state's undeveloped land and water (including wetlands) by 2050.

Box 2: State-Level 30x30 Action in the United States

Momentum at the national level during the Biden-Harris Administration propelled states to coalesce and increase conservation measures under a 30x30 goal. At least eight states have established a 30x30 goal through legislation or executive order—including California, Massachusetts, Maryland, Maine, New Mexico, Nevada, New York, and Vermont—and states are developing and deploying new strategies to meet their goals and/or leveraging existing conservation planning. California, Maryland, and New York are further down the planning and implementation path for 30x30. Highlights include:

- In 2024, **Maryland** announced that the state had met the 30x30 goal (captured in the state's Protected Lands Database) and has moved to implement its 40x50 goal. Maryland has one of the oldest dedicated sources of state funding for conservation, Program Open Space, which is funded by a real estate transfer tax and has been instrumental in supporting conservation work in the state.
- In **California**, philanthropic funding supported a broad-based stakeholder engagement process that incorporated multiple perspectives into the final 30x30 strategy released by the state. The 30x30 strategy benefited from a state budget surplus and a climate bond in 2024 that includes more than $1 billion for biodiversity and nature-based solutions.
- After establishing a 30x30 goal in 2022, **New York State** released a draft 30x30 strategy document for public comment in 2024. New York has a dedicated source of conservation funding—the Environmental Protection Fund (EPF), funded through a real estate transfer tax—and the state commits green bond funds to conservation.
- **Vermont** established a 30x30 goal in 2023 and is currently developing a new conservation plan, the Vermont Conservation Strategy Initiative (VCSI), to articulate strategies towards the goal. A real estate transfer tax funds conservation through the Vermont Housing and Conservation Board (VHCB); the state also leverages bond funding.

Delivering on the Commonwealth's 30x30 goal is critical to meaningfully protecting the state's natural resources and the ecosystem services they provide.

Massachusetts has a wealth of natural resources that support a host of important benefits to the people and wildlife that call the state home (Box 3). However, just under 28% of our natural landscape is currently protected. Much of the 5-million-acre state is forest (~3 million acres of forests and trees), located primarily in the western and central regions. The state's 1,500 miles of coastline are home to natural recreational assets such as the Cape Cod National Seashore and a plethora of public and private beaches from Cape Cod up the northern coast. Wetlands and freshwater bodies account for nearly 15% of the state's land area. Less than a quarter of the Commonwealth is either developed (20%), meaning impervious land and recreational and ornamental landscapes, or used for agriculture (4%) (Figure 1), but these ratios of developed vs. undeveloped will shift in the wrong direction without investing in conservation.[10]

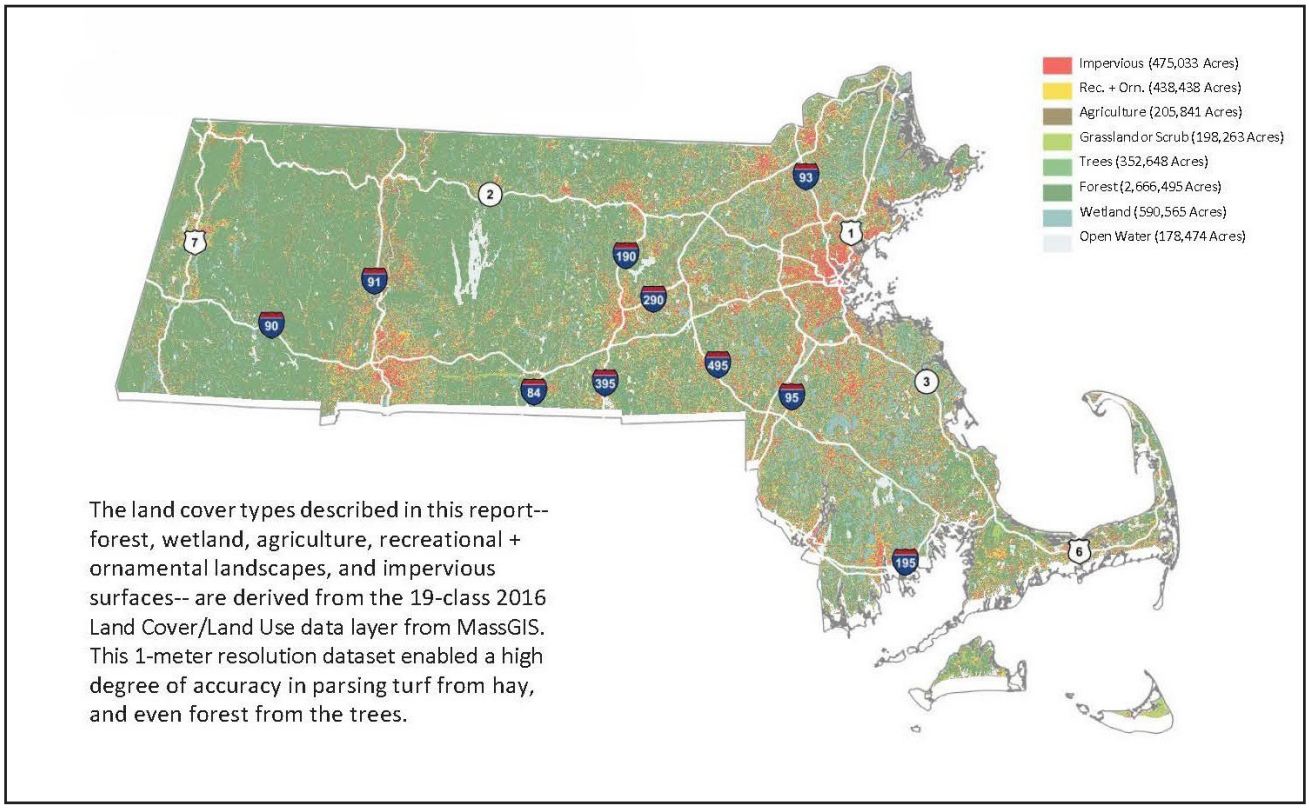


Figure 1: Major Land Cover Types of Massachusetts (Source: MA Healthy Soils Action Plan 2023)

Box 3: Environmental & Economic Benefits of Protected Land

Carbon Storage & Sequestration

Natural and working lands in the Commonwealth currently store the equivalent of 25 years of statewide greenhouse gas (GHG) emissions.[11] Each year, the Commonwealth's undeveloped lands (driven primarily by forestland) absorb about 11% of annual GHG emissions in the state.[12] Massachusetts's salt marshes and seagrass total nearly 60% of the New England region's blue carbon stock.[13]

Climate Resilience

Protecting forests and coastal ecosystems is one of the most cost-effective actions to mitigate coastal and inland flooding and erosion resulting from climate change-induced increases in the frequency and severity of storm events.[14] Storm runoff is greatly reduced by forested land. Forests reduce gallons of runoff per acre by almost 90% compared with developed areas, yielding important flood reduction benefits.[15] Wetlands protect coastal areas from storm surge and sea level rise. The flood protection provided by coastal wetlands and marshes helps coastal communities across the United States avoid more than $23 billion in potential damages annually.[16]

Clean Water

Forest and wetland conservation yields significant water quality benefits through the filtration functions that these ecosystems provide. Each year, forests in Massachusetts filter more than 1.6 trillion gallons of water.[17] Development of forested and other natural land acres can have detrimental effects on water quality; even a 10% increase in impervious acres within a watershed can degrade water quality.[18] Land conservation can protect source watersheds, including for Gateway Cities and underserved communities in the Commonwealth. Only half of the more than 500,000 acres of upland drinking watersheds are currently protected.[19] Watershed protection around the Quabbin and Wachusett reservoirs has saved $200 million in filtration and operating costs for Massachusetts Water Resource Authority ratepayers.[20] It's estimated that each $1 spent on source water protection can save $27 in water treatment costs.[21]

Clean Air

Natural and working lands also provide important air pollution reduction benefits. Trees absorb pollutants and capture them in their leaves, and conservation practices on agricultural land can also improve air quality by reducing pollutant and particulate levels.

Biodiversity

In Massachusetts, 273 native plant and 180 native animal species are protected under the state's Endangered Species Act as endangered (224 species), threatened (117 species), or of special concern (113 species).[22] Natural and working lands provide crucial habitat for plant and animal species, creating space for species to rebound and thrive.

Economic Impacts

Natural and working lands support jobs and economic output in multiple sectors. Forests support 38,000 jobs and $9.2 billion in economic output.[23] Farmland in Massachusetts supports a growing local economy of food production: The state has more than 7,000 farms with an annual market value of more than $607 million.[24] Agriculture employs nearly 26,000 people in the state.[25] The Commonwealth's outdoor recreation economy is a growing sector across the state's diverse environments. Outdoor recreation supports more than 100,000 jobs, adding nearly $12 billion in value-added, or almost 2% to the state's economy, and the sector grew by 17% in 2022.[26] Wildlife recreation spending from nearly 2.5 million hunters, fishers, and bird and other wildlife viewers has totaled more than $1.6 billion for the state.[27] Recreational boating brings in about $5 billion to the state and provides employment to almost 18,000 residents.[28] The broader blue economy employs more than 86,000 people and is responsible for contributing around $8.3 billion to the Commonwealth's GDP.[29] The Cape Cod National Seashore, which hosts around 4 million visitors annually, is one of the top 20 most popular national park areas in the U.S. by visitation.[30]

Land conservation that protects these environmental and economic benefits has a measurable economic multiplier effect: For every $1 invested in land conservation in the Commonwealth, at least $4 in economic benefits (value of goods and services) are generated for the state.[31]

The environmental and economic benefits of the Commonwealth's natural and working lands are threatened most significantly by land conversion to other developed uses, which converts an estimated 10,000 acres of natural and working lands per year.[32]

Massachusetts is one of the most densely populated states in the country. From 2012 to 2017, nearly 30,000 acres of forests were lost. Ground-based solar development was responsible for 8,000 acres of development from 2010 to 2020; more than 60% of this development was on forested or agricultural lands.[33] If recent solar development trends continue without greater balance between the mutual needs of clean energy development and land conservation, another 60,000 to 200,000 acres of land may be needed to host ground-mounted solar projects and other clean energy infrastructure. The Commonwealth is currently developing a new framework for energy siting and permitting, which will include site criteria intended to limit environmental and natural resource damages from new solar and other clean energy projects. If successful, this new siting regime should reduce the conversion of forests and other natural working lands for energy development, though it will not eliminate it completely.[34,35]

Wetlands and farmland have also suffered significant losses. Wetland loss over the period between 1990 and 2005 was estimated at nearly 1,600 acres, with wooded swamps and marshes hit hardest, due primarily to residential and commercial development and conversion to cranberry bogs.[36] From 1997-2022, the state lost 113,000 acres of farmland (25% of all farmland)[37] and without additional investment and policies, we could lose another 1,200 farms and up to 90,000 acres of farmland to development.[38]

The most rapid development is happening in the eastern portion of the state (Figure 2). Scenarios for future land use in New England are highly dependent on Massachusetts's future policy and planning trajectories. In the scenario in which natural resource innovation and planning are modeled as the lowest priority, conserved forest land is projected to decrease by more than 120,000 acres as compared with a business-as-usual scenario of existing population, development, and other trends in New England.[39]

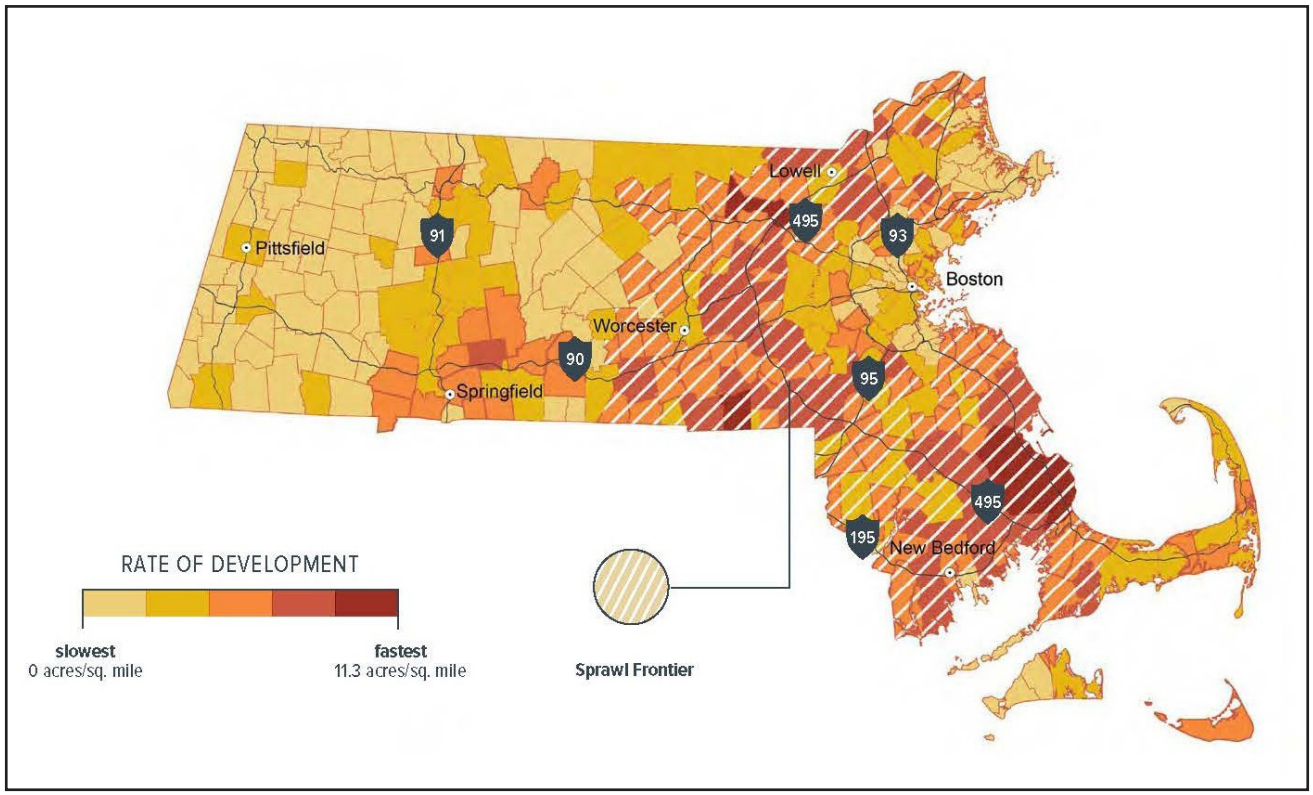


Figure 2: New Development Across Massachusetts Towns, 2012 – 2017 (Source: Losing Ground 6, Mass Audubon 2020)

Alongside pressure for development, climate change threatens to undermine the long-term survival and resilience of the Commonwealth's natural resource base.

The state's *2020 Forest Action Plan* identifies impacts of climate change on forests such as reduced habitat for native species, changes to soil moisture, and greater tree mortality resulting from changing patterns of disease and insects from warm weather.[40] Increased temperature will lead to warmer and drier wetlands, causing a release of carbon. Sea level rise could reduce the total area of coastal wetlands, leading to saline intrusion in freshwater wetlands and other water bodies. Changes in temperature and precipitation are likely to cause shifts in habitat types and introduce new insects and diseases to native ecosystems that lack the ability to adapt. Nearly 20% of cultivated farmland in the Commonwealth is in the 100-year floodplain and is subject to crop-destroying flooding.[41]

The Commonwealth has been ambitious in its legislative and executive planning to combat climate threats, but these well-intentioned efforts lack sufficient funding for implementation and binding regulatory requirements.[42] Mass Audubon and partners continue to advocate for the dollars, people, and authority the Commonwealth requires to fulfill these commitments.

2021

An Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy commits the Commonwealth to reaching net-zero greenhouse gas emissions by 2050. To reach this goal, the act requires the Commonwealth to set sector-specific emissions limits. Carbon removal from natural and working lands is listed as an important mechanism to reach the net-zero goal, to be assessed through Clean Energy and Climate Plans (CECPs) every five years.[43]

2022

The **CECPs for 2025 and 2030** detail the actions Massachusetts will take to meet the emissions reduction goals contained in the Next-Generation Roadmap. The CECPs set permanent land conservation goals of at least 28% by 2025, at least 30% by 2030, and at least 40% by 2050.

2023

Executive Order 618: Biodiversity Conservation in Massachusetts identifies biodiversity conservation as having critical value and benefits to the health and well-being of the Commonwealth's people and requires development of biodiversity conservation goals for 2030, 2040, and 2050 and strategies to meet those goals.

Resilient Lands Initiative (RLI) is a collaborative cross-sectoral effort to conserve, restore, and steward land that intends to leverage natural lands as a climate change mitigation and resilience solution, including for no net loss of farms and forests.

Forests as Climate Solutions (FACS) Initiative seeks to expand forest reserves to 10% of forested lands (double the current area) and implement improved forest management for carbon sequestration and climate change resilience.

Farmland Action Plan (FAP) aims to stem the loss of productive farmland in Massachusetts through funding and policy that keep farms as farms.

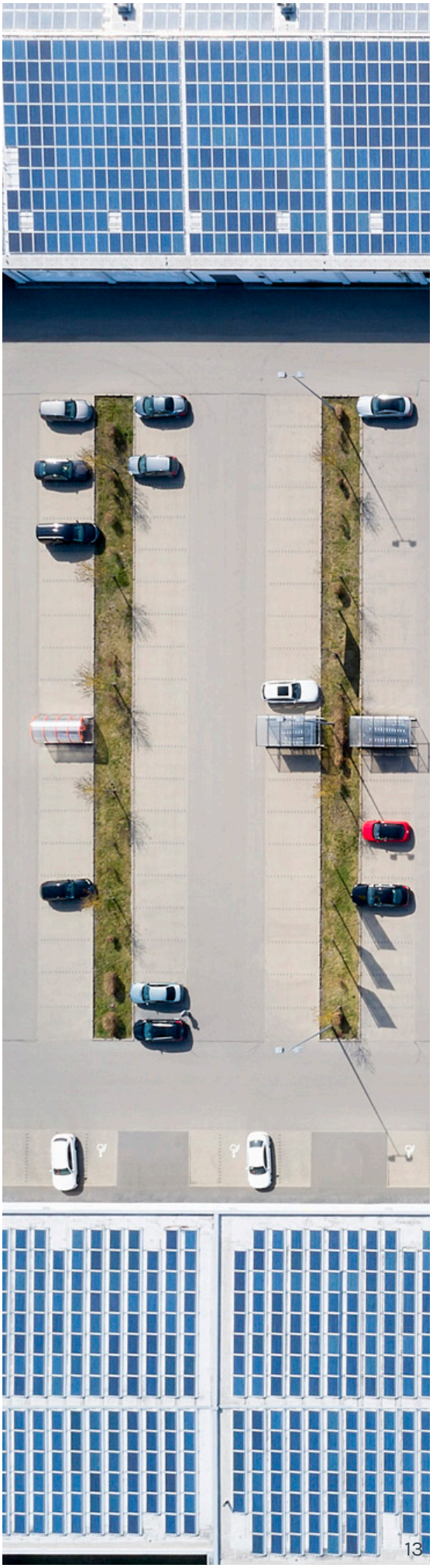
To maximize potential co-benefits, nature conservation goals must align with other important goals and priorities of the Commonwealth. Massachusetts's 30x30 land conservation activities in the state can be implemented in concert with social, economic, and other environmental goals.

1. Alignment with affordable housing goals.

Recognizing the growing demand for and importance of affordable housing for the state's residents, the Commonwealth has established the MA Housing Choice goal of adding 135,000 new housing units in the state by 2025. In 2024, the state passed the Affordable Homes Act to provide greater levels of spending (more than $5 billion for the next five years and 50 policy initiatives) for affordable housing programs. Affordable housing and conservation goals can be aligned, where, for example, efforts are made to build new affordable housing units close to open space, or where conservation of open space is prioritized near existing housing. Another option is to build affordable housing and conservation of open space into deals together. For example, in 2024, the Kestrel Land Trust embarked on a 53-acre project in Easthampton through which 42 acres will be permanently protected and 11 acres developed for affordable housing by The Community Builders, a non-profit developer. Similar collaborations between the conservation and affordable housing communities could continue to generate mutual benefits.[44]

2. Responsible siting and development of new sources of renewable energy.

The energy transition required to meet the Commonwealth's net zero goal by 2050 will require significant development of new renewable energy infrastructure. The state's latest estimates require 8 gigawatts (GW) of solar and 4 GW of onshore and offshore wind by 2030, rising to 27 GW of solar and 24 GW of wind by 2050. To date, large-scale ground-mount solar development has contributed more to the loss of natural and working lands than to its conservation. From 2010-2020, about half of large ground-mount solar arrays (~3,700 of ~7,900 acres) were in forest areas, with an additional 1,600 acres of prime farmland also converted to solar sites. Mass Audubon and Harvard Forest's 2023 analysis found that the state's goals for increasing solar and protecting natural carbon removal, biodiversity, and climate resilience could be better aligned by deploying more solar in the built environment (e.g., rooftops, parking lot canopies), siting ground-mount solar on already developed or disturbed lands, and ensuring that state solar incentives do not encourage further conversion of forests and productive farmland.[45] In November 2024, Massachusetts enacted a clean energy siting and permitting law that requires the use of environmental criteria to identify preferred sites for new solar and other energy infrastructure that minimize impacts on nature. This law also requires energy developers to mitigate impacts to natural and working lands. State agencies will propose environmental and other criteria to implement this new siting framework in fall 2025.



3. Bringing equity and environmental justice to the forefront of conservation decision-making.

Almost half of Massachusetts residents live in environmental justice communities, as defined by the Executive Office of Energy and Environmental Affairs (EEA).[46] The Commonwealth has one of the greatest gaps in the nation between the percentage of people of color who live in nature-deprived areas (94%) and the percentage of white people who do (14%).[47] The wealthiest and least diverse communities in the state can have upwards of twice as much protected land nearby.[48] Land conservation can increase nearby property values, meaning these additional economic benefits are mostly realized by wealthy, white people.[49] Recent initiatives by the Commonwealth identified the importance of addressing these historical inequities. The RLI, for example, "strives to be more inclusive of the needs of residents who are often at the margins of land conservation and restoration plans, especially in Environmental Justice (EJ) neighborhoods," with related goals such as reducing the impacts of climate change in EJ neighborhoods.[50] However, these goals need to be made more concrete in prioritizing areas and conservation interventions that could help remedy inequity in accessibility and the associated benefits that nature provides our neighborhoods.

4. Elevating Indigenous voices and rights.

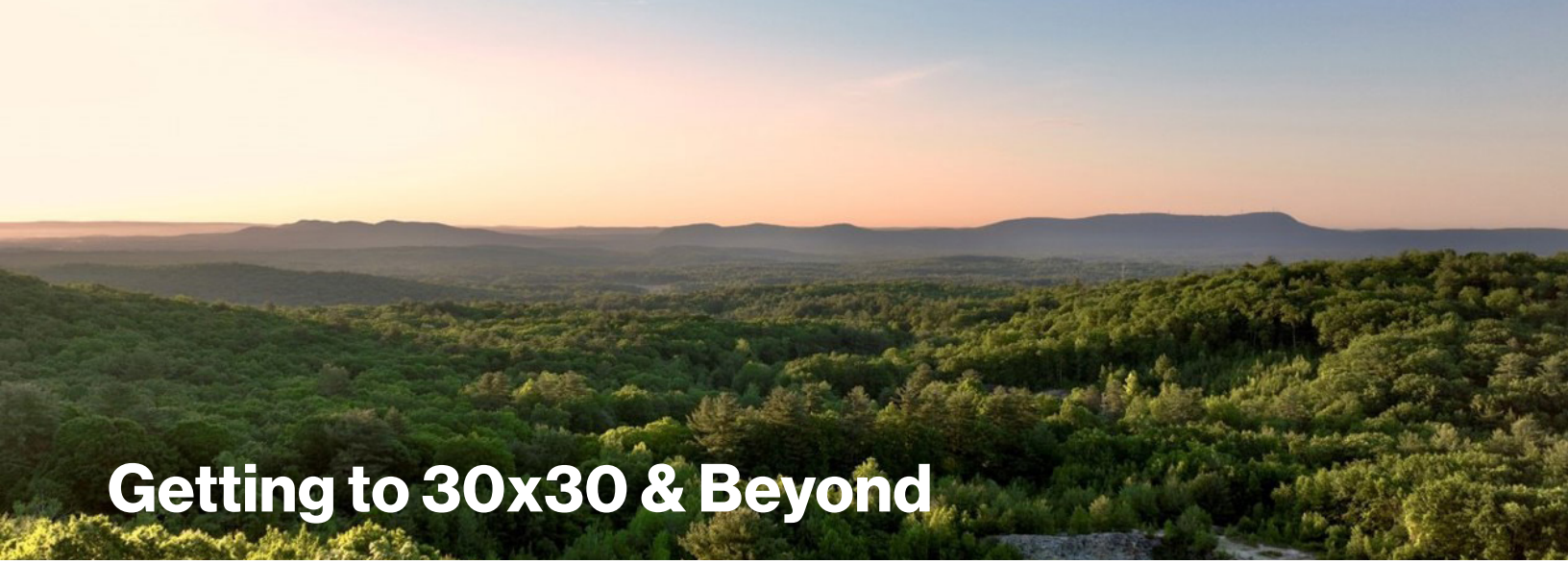
The Commonwealth is home to two federally recognized Tribes, two state-recognized Tribes, unrecognized Tribes, and other Indigenous bands that do not have formal governance structures. For these and other groups, traditional culture is deeply connected to healthy land. For too long, however, Indigenous peoples and other underserved communities have not benefited in equal measure from the vast natural resources of the Commonwealth. Indigenous peoples and other rights holders in the state have land values and conservation expectations that need to be incorporated into the Commonwealth's conservation priorities. The Commonwealth has made strides in addressing these inequities. In 2016, the Native Land Conservancy (NLC) signed the first cultural respect easement on the East Coast, and several other organizations have followed suit, including the Harwich Conservation Trust, which conveyed a cultural use easement over all of its fee holdings to NLC. In the summer of 2021, the Commonwealth also updated its conservation restriction template to include language establishing that Indigenous cultural landscapes and practices are eligible purposes for land conservation.

Box 4: Conservation for Indigenous Peoples Benefits

In 2023, the NLC—the first Native American-led land conservation group east of the Mississippi—purchased the Aquinnah Shop restaurant and surrounding land (a total of 3.3 acres) on Martha's Vineyard for $2 million with the intention of returning the land to the Aquinnah Wampanoag Tribe. The property had been sold outside of the Tribe in 2016. The NLC provided interim funding while the newly established Aquinnah Land Initiative, a land organization rooted in the Wampanoag Tribe, secures funding to purchase the land from the NLC and return it to tribal control.

"The land itself is extremely important to us, and we feel that we are not separate from the land, we are part of the land, and the land is part of us."

—Wenonah Madison, President of the Aquinnah Land Initiative.[51]



Getting to 30x30 & Beyond

Current conservation trends suggest that the Commonwealth is not keeping pace with the land protection progress needed to meet the 30x30 and 40x50 land conservation goals. Getting to the 30x30 land protection goal will require identifying and protecting more than 100,000 additional acres in the Commonwealth over the next five years. This represents an increase of roughly twice the current pace of protection. Reaching the larger 40x50 goal will require more than 500,000 additional acres, assuming the 30x30 land conservation goal is met. These increases will in turn require greater levels of funding than currently exist.

Current Conservation Trends

Today, through both public and private land conservation efforts, nearly 28% (~1.4 million acres) of the Commonwealth's land is permanently conserved.[52]

Massachusetts's conservation efforts currently rank it second only to Maryland and tied with Vermont in terms of progress toward 30x30.[53] An active network of public agencies, municipalities, and nonprofit organizations in the Commonwealth work collaboratively to conserve land in perpetuity by acquiring land in fee or by acquiring perpetual conservation restrictions (known elsewhere as conservation easements).[54] The vast majority (85%) of conserved land in Massachusetts is conserved in fee, in which a public or nonprofit entity acquires title and owns the property (Figure 3). Of this total, the state and municipalities own the majority (nearly 70%) of conserved land. A smaller amount of land (15%) is conserved via conservation restrictions, agreements in which a landowner agrees to specific, permanent restrictions on the development of their property (Figure 4).

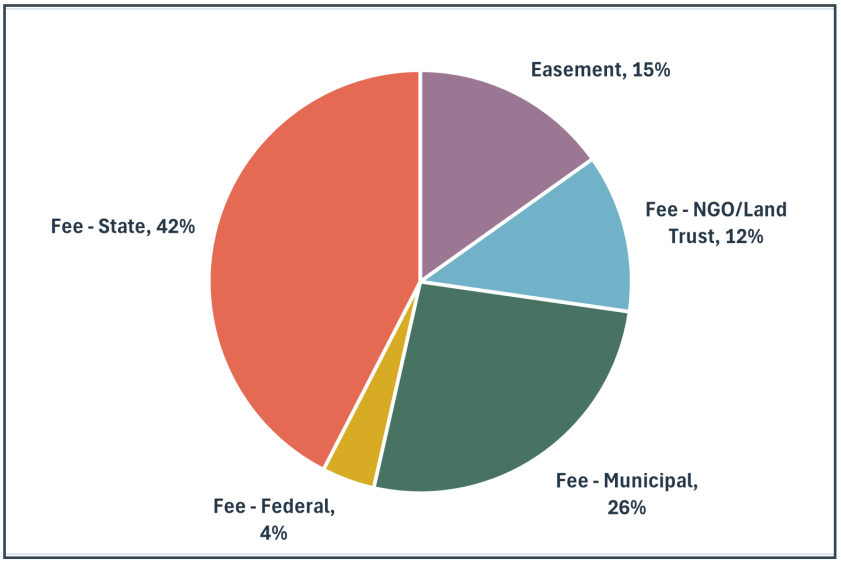


Figure 3: Conserved Land Categories in Massachusetts, 2023 (Source: Kannel et al., 2023)[55]

Recent trends in land conservation show that around 10,000 acres of land are conserved per year in the Commonwealth. [56]

Forests represent the majority of new conservation (more than 80%), followed by agricultural lands (7%) and wetlands (4%).[57] In addition to these natural and working landscapes, conserved land also includes recreation-related facilities and development such as sporting fields, parks, and golf courses. Several tools are currently employed to prioritize conservation, including BioMap (the state's protection planning tool); the mapping of Prime Agricultural Soils, Prime Forest, and drinking water protection zones; external tools such as TNC's Resilient Land Mapping Tool; and local and state planning documents that prioritize conservation targets based on specific goals and strategies.

The current rate of land conservation does not reflect the extensive pipeline of potential conservation projects that are awaiting adequate funding to be realized.

Completion of these projects would make a marked difference in the state's progress toward its 30x30 goal, especially when paired with larger, landscape-scale efforts (Box 5). The state's ~150 private land trusts, along with state agencies, have projects of varying sizes under development; the primary constraint is insufficient funding. Legislation currently under consideration at the State House and championed by Mass Audubon and a diverse coalition of environmental, and community groups aims to create a new dedicated source of state funding to scale up conservation work across the Commonwealth.[58]

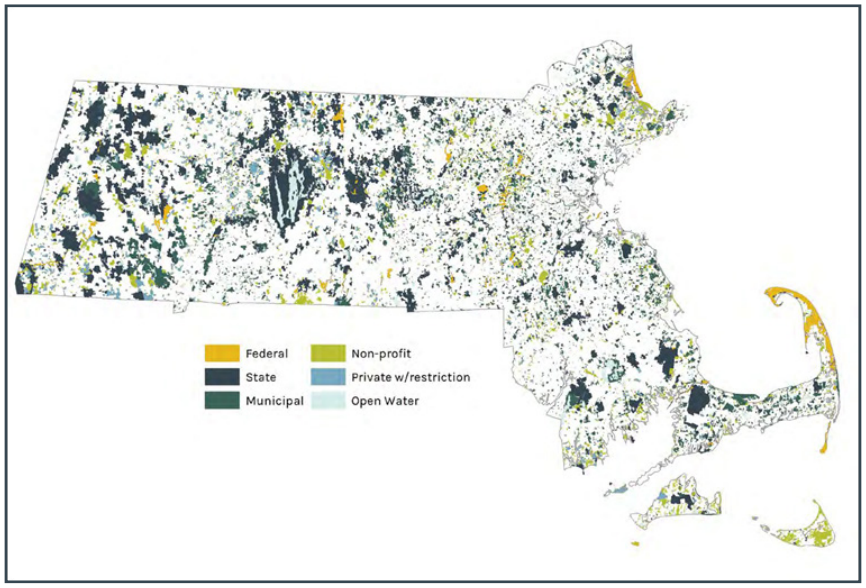


Figure 4: Land Conservation Across Massachusetts, 2019 (Source: Mass Audubon, Losing Ground 6, 2020)

Box 5: Landscape-Scale Conservation in the Connecticut River Valley

In the Connecticut River Valley of Massachusetts, a broad-based and coordinated partnership of land conservation entities is working to secure the kind of landscape-scale land protection project that will be necessary to meet the Commonwealth's land protection goals. Led by Kestrel Land Trust, land trusts and agency staff conducted outreach to more than 400 landowners in the Northeast Forests and Waters Critical Conservation Area of the Connecticut River Valley. They secured conservation commitments on 8,500-acres in a landscape prioritized for forest, riparian, and wetland habitats with more than 50 landowners.

Public (local, state, and federal) funding for land protection in Massachusetts is about $55 million per year.[59]

The largest sources of existing public funding for conservation in the Commonwealth come from open space and recreational spending through the Community Preservation Act (CPA) at the municipal level and Capital Investment Plan (CIP) funding from the Commonwealth's bond issuances. Together, these sources account for around 75% of existing public funding for conservation. The state also benefited from a one-time infusion of $50 million through federal American Rescue Plan Act (ARPA) funding that will support greater levels of land conservation for the next couple of years, but this funding has already been allocated, and the state will soon return to baseline levels.[60] For this reason, as noted in Table 1, ARPA funds are not included in the estimate of average annual conservation spending.[61]

The CPA is the greatest financial enabler of local conservation. It puts municipalities in the driver's seat of land conservation in the state. Enacted in 2000, the CPA allows Massachusetts municipalities that adopt the program to levy a surcharge of up to 3% on local property taxes to generate a restricted revenue source for open space conservation, outdoor recreation, historic preservation, and affordable housing. Funding across these categories varies according to the priorities of the individual municipalities, but all CPA communities are required to dedicate at least 10% of their annual CPA revenue toward open space and/or outdoor recreation (as well as 10% toward historic preservation and 10% toward affordable housing). The state also provides annual matching funds to CPA municipalities to supplement their local revenue through a statewide CPA Trust Fund; the revenue for this Trust Fund is generated primarily through a document-recording fee at the state's Registries of Deeds.

Table 1: Estimated Average Annual Public Funding for Conservation in Massachusetts

Funding Source [1]	Description	Estimated Average Annual Funding [3]	% of Total Funding
Local & State—Community Preservation Act (CPA)	Includes funds generated for open space and recreation land protection spending from local CPA communities and the state trust fund match.	$23,000,000	41%
State—Capital Investment Plan/Bond Funding [2]	State Capital Investment Plan funding through bond issuances includes land acquisition programs run by state agencies and land protection and community investment grant programs administered by Massachusetts Executive Office of Energy and Environmental Affairs (EEA).	$20,000,000	36%
State—Other	Includes funding from the state's Conservation Land Tax Credit (CLTC) program, the state Municipal Vulnerability Program (MVP), the US Army Corps of Engineers In-Lieu Fee (ILF) program administered by the state, and the Box Turtle Mitigation Fund administered by The Nature Conservancy.	$4,000,000	7%
Federal—Land and Water Conservation Fund (LWCF)	Includes LWCF stateside.	$6,000,000	11%
Federal—US Department of Agriculture (USDA)	Includes Agricultural Conservation Easement Program's Agricultural Land Easements (ACEP-ALE) and Wetlands Reserve Easements (ACEP-WRE) programs.	$3,000,000	5%
Federal—North American Wetlands Conservation Act (NAWCA)	Annual average funding for NAWCA grants to Massachusetts.	$300,000	0.6%
TOTAL		$55,000,000	100%

Notes:
[1] This list is not comprehensive but reflects the largest and most consistent sources of funding for conservation in the state. One-time infusions, such as that made through the American Rescue Plan Act (ARPA) and the recent USDA grant to the state of $20 million for the Resilient Lands Conservation Partnership, are not included. We also do not include private funding for conservation due to lack of accurate data on historic private funding amounts and the potential variability in private funding for land conservation given broader economic trends and other factors. This methodological decision is detailed in this report's Technical Supplement.
[2] State Capital Investment Plan funding programs and sources are detailed in the Technical Supplement to this report.
[3] Estimated average annual funding for each funding source reflects the annual average taken over different historical time periods. These time periods vary and are detailed in the Technical Supplement.
[4] Totals may not sum due to rounding.

Massachusetts has also authorized bonds for capital spending, including for environmental purposes, roughly every five years for the past few decades.[62] The state was the first state to use a green bond, opening up $100 million of environment-focused spending in 2013. Bond funding for conservation is spent through EEA's six agencies across a variety of land acquisition and grant programs. Land and conservation restrictions on land are considered capital assets and are funded by the state's bond bills. Other green bonds have passed since 2013, with roughly 15-20% of the total bond issuance allocated for conservation-related programs. Another environmental bond bill was introduced in June 2025.

Smaller state and federal programs supplement the larger CPA and bond investments. The Conservation Land Tax Credit (CLTC) Program issues tax credits to landowners for donating land or conservation restrictions for lands containing natural resources that are in the public interest (e.g., forest land). Federal programs such as the Land and Water Conservation Fund (LWCF) and USDA's agricultural and easement programs also supplement conservation in the state.

Several ongoing initiatives demonstrate the investment the private sector is making in land conservation in the Commonwealth.

However, while private funding is contributing to land conservation in the Commonwealth through land trusts, conservation nonprofits, and other entities, we do not include private sources in the assessment of funding available to meet Massachusetts's 30x30 and 40x50 land conservation goals because it is so difficult to track. It is highly variable across timescales, Massachusetts's large ecosystem of land trusts, and the private conservation funding sources at work in the state. Moreover, there is no reliable current or historic data on this funding source.

Nonetheless, there is significant potential for success through partnerships with private financing. With a $25 million seed gift from MathWorks, the Massachusetts Audubon Society established the $75 million **30x30 Catalyst Fund** to provide a home for conservation-seeking philanthropic capital that can be used directly or to leverage additional funds. Key capacities of the fund will be to provide capital to enable blended conservation deals in which different sources of funding and financing are combined to provide the capital necessary to permanently protect land, to quickly acquire priority parcels from landowners who want or need to sell quickly for eventual conveyance to public or nonprofit entities, and to recoup some project costs to revolve back into other land conservation deals. The fund's land conservation activities are fully underway and have already achieved notable conservation successes.

To grow Massachusetts's public sources of conservation funding, the **Nature for Massachusetts** coalition—a group of conservation, community, environmental justice, and tribal nonprofits in the Commonwealth—has formed to champion the establishment of a new, dedicated state source of funding for conservation. The coalition has identified several potential sources of funding and prioritized those that are most feasible for the state. This work follows from similar work conducted in other states that have successfully established dedicated sources of funding (Box 6).

Box 6: Dedicated Sources of Funding for Conservation in Select States

While not all states have linked funding to 30x30 goals specifically, many have actively sought and succeeded in increasing the scale of funding available for conservation efforts.

Since the early 1990s, **Colorado** has used lottery revenue to support the state's Great Outdoors Colorado Trust Fund (GOCO). GOCO has bonding authority (up to $115 million annually) through at least 2049, which is estimated to generate more than $3.3 billion for the fund when combined with the lottery dollars.[64]

In 2023, **New Mexico** used a budget surplus to create the Land of Enchantment Legacy Fund that will provide $50 million over four years. The state also appropriated another $50 million as the principal investment for a permanent trust fund to support conservation in the state, and in 2024 added another $300 million to conservation funding through the state's annual budget.[65]

Also in 2023, **Texas** voters approved Proposition 14, which created the Centennial Parks Conservation Fund, allocating $1 billion from the state's budget surplus to be used exclusively for acquiring and improving state parks.[66]

From 1990 to 2009, **Florida** backed revenue bonds ($300 million per year) through a documentary stamp tax (real estate transactions) for land protection initiatives. In 2014, voters approved dedicating one third of this tax for land conservation, management, and restoration until 2034 (equal to about $22 billion in total).[67]

In **Georgia**, voters approved a constitutional amendment in 2018 dedicating a portion of its sporting goods sales tax towards local parks and conservation in the state through a Georgia Outdoor Stewardship Trust Fund (equal to about $200 million over 10 years).[68]

In **Maryland**, a real estate transfer tax has funded land conservation since 1969. Proceeds are administered through Program Open Space in the state, and are typically in the hundreds of millions of dollars per year.[69]

Funding for capacity has increased recently.

Land acquisition can be a complicated and time-intensive process that requires skilled staffing. On the public side, EEA recently released a capacity building opportunity to fund land trusts and municipalities that conduct due diligence activities critical to land transactions.[70] On the private side, the recently established $1 million Worcester County Green Fund is making its first investment as part of its Land Trust Capacity-Building Grant Program to strengthen the capacity of land trusts working within Worcester County. Grants will be available to the 22 land trusts in the county—17 of which are volunteer-led—to conduct strategic planning, grant management, and other internal capacity building to better support their ability to complete land transactions efficiently and effectively. The fund blends capital from a private donor family with a match from the Greater Worcester Community Foundation.[71]

Despite this collection of resources to date, both public and private sources of funding for land conservation must increase beyond current levels to meet the Commonwealth's conservation goals.

Existing funding sources provide an important baseline level of support for the 30x30 and 40x50 land conservation goals, but more funding will be required to reach the additional acres needed.

Required Acres to Meet Land Conservation Goals

Massachusetts currently has almost 28% of its land area protected. To get to 30% protected, the state will have to conserve another 100,000 acres between now (2025) and 2030, or about 20,000 acres per year over this time. **This annual conservation goal is almost double the current rate (10,000 acres per year)**.[72] Looking further out, the goal of 40x50 will require an additional ~500,000 acres from 2030 to 2050. The annual acre goal to reach 40x50 would be about 26,000 acres annually from 2030 until 2050.[73]

The location of these additional conserved acres cannot be precisely known because land acquisitions and easements will ultimately depend on where willing sellers are located and where conservation partners can assemble the funding necessary to acquire and protect land. In addition, the state has not identified specific criteria for 30x30 land conservation goals. Conservation partners in the state routinely use the BioMap tool as a shared approach to prioritizing land based on ecological criteria, but these areas do not consider the human goals of conservation—access, equity, and environmental justice—nor the carbon values associated with land. Using BioMap as a basis for the location of conservation acres is therefore valuable, but insufficient given its strict focus on specific ecological criteria.

For the purposes of this analysis, and in the absence of known locations or criteria for what will ultimately be counted for the 30x30 and 40x50 land protection goals, future conserved acres are assumed to follow recent trends across land cover categories in the Commonwealth (Table 2). Recent trends indicate that forest land represented the vast majority (more than 80%) of conservation in the Commonwealth from 2011 to 2021, followed by agricultural land (~7%), and wetlands (~4%). Applying these proportions to the acres required for the 2030 and 2050 goals provides a reasonable projection of where land conservation may occur over the next few decades.

Table 2: Recent Trends in Land Conservation in the Commonwealth

Land Cover Types	Acres Conserved 2011 – 2021 [1]	% of Conserved Area from 2011 – 2021	Acres Requiring Protection to 2030 (2025 – 2030) [2]	Acres Requiring Protection to 2050 (2030 – 2050)
Bare land	496	0.36%	390	1,857
Agricultural	9,268	6.71%	7,285	34,664
Forest	114,002	82.49%	89,614	426,404
Grassland	3,957	2.86%	3,111	14,802
Water/submerged land	1,992	1.44%	1,566	7,451
Wetland	4,891	3.54%	3,844	18,292
Scrub/shrub	3,323	2.40%	2,612	12,430
Impervious	278	0.20%	219	1,040
TOTAL	**138,207**	**100%**	**108,641**	**516,940**

Notes:
[1] Acres conserved from 2011-2021 reflect data from DCR Land Protection Program, Forests as Climate Solutions Initiative.
[2] Acres requiring protection to meet the 30x30 and 40x50 land protection goals are calculated by multiplying the percent of conserved area for each land cover category from 2011-2021 by the total number of acres required for each land conservation goal.

Required Funding for Land Conservation Goals

With land values varying widely in the Commonwealth by land cover type as well as by geographic location, the potential costs of conserving these acres may likewise vary greatly. To provide a reasonable range of costs, we apply fair market value data for unprotected, vacant land across the Commonwealth across three scenarios (low, medium, and high). The low scenario includes average fair market land values in the central and western counties of the state; the medium scenario includes average fair market land values across counties in the state but excludes the high-cost counties of Cape Cod and the Islands; and a high scenario includes average fair market land values across all counties in the state including the high-cost counties.[74] These scenarios represent a potential range of conservation values and benefits across the state in conserved parcels—from conserving particular ecosystem types, to critical habitat for threatened species, to open space access for underserved communities—some of which will require conservation in more expensive areas. Based on conservation trends in the Commonwealth, we assume that 75% of future acres will be conserved through acquisition and 25% through conservation restrictions.[75] For the CR acres, we use 50% of the fair market values to reflect potential costs of CRs.[76]

These three scenarios provide a range of anticipated costs across land cover categories, geographies, and conservation methods required to meet the 30x30 and 40x50 land conservation goals (Tables 3 and 4). We note that these costs are presented in 2025 dollars ($2025) and could be higher to the extent that land values increase, as they historically have in the Commonwealth, over the period of 2025-2050. In addition, the cost ranges do not include potential costs associated with conserving open water areas; data for these areas was either missing or had inaccuracies that prevented a reliable estimate.

It is critical to remember that the cost of getting to the 30x30 and 40x50 land conservation goals articulated here reflects a likely underestimate on a per land transaction basis, because the costs are acquisition costs for land or a conservation restriction alone. What is not reflected are the organizational and capacity costs associated with getting land conservation deals done—the outreach, negotiation, due diligence, and other steps involved in a land transaction—which all add to the cost of reaching these land conservation goals.

With these assumptions and variables in mind, we estimate that the total cost of achieving the 30x30 land conservation goal may range from $1.8 billion to $4 billion, or $350 million to almost $800 million annually, through 2030. For the 40x50 land conservation goal, we estimate a potential total cost ranging from $8 billion to nearly $20 billion, or around $400 million to nearly $1 billion annually, from 2030-2050.

The lower-bound estimate is driven by acquisition and protection of the more inexpensive land in the state, largely translating to land conservation occurring in the less developed central and western counties. Meeting the goals to provide access to nature for all residents of the Commonwealth, however, means that some conservation would also occur in geographies with higher land values. The lower-bound estimate can therefore be understood as the lowest cost approach the Commonwealth could take to meet its land conservation goals, though this would fall short of the spirit and promise of its conservation ambitions.

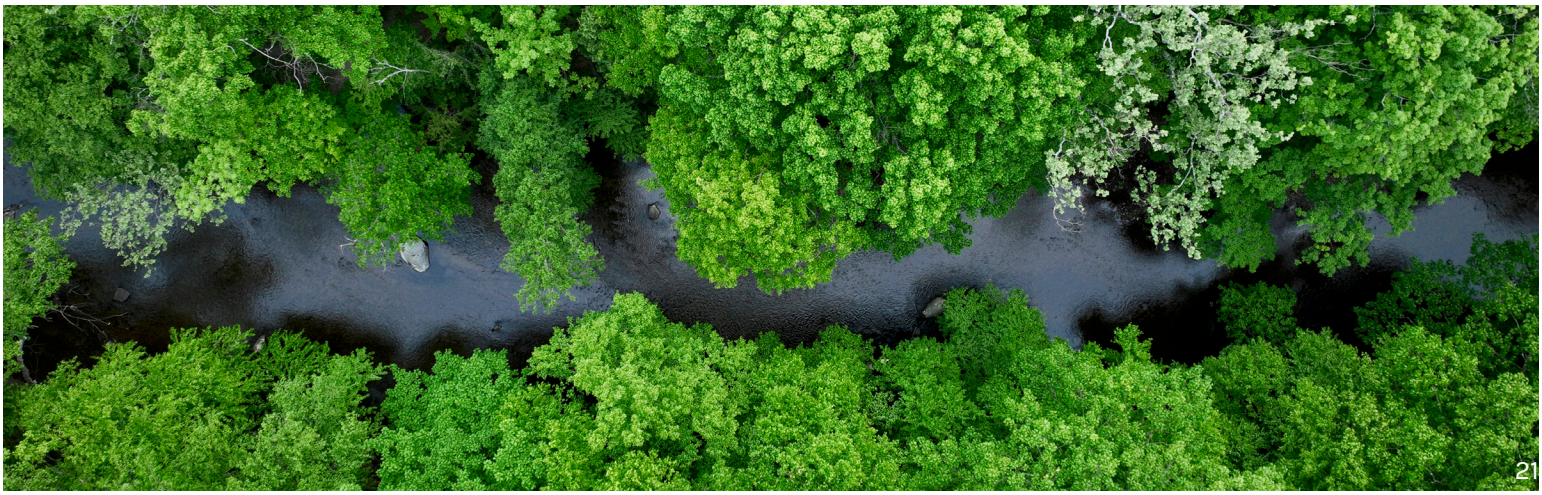


Table 3: Estimated Costs of Achieving 30x30 ($2025)

Land Cover Category	Acres Requiring Protection to 2030	Total Cost to 2030 (2025 – 2030)			Annual Cost (2025 – 2030)		
		Low	Medium	High	Low	Medium	High
Bare land	390	$10,000,000	$21,000,000	$35,000,000	$2,000,000	$4,000,000	$7,000,000
Agricultural	7,285	$137,000,000	$206,000,000	$216,000,000	$27,000,000	$41,000,000	$43,000,000
Forest	89,614	$1,414,000,000	$2,884,000,000	$3,252,000,000	$283,000,000	$577,000,000	$650,000,000
Grassland	3,111	$70,000,000	$183,000,000	$218,000,000	$14,000,000	$37,000,000	$44,000,000
Water/ submerged land [1]	1,566	N/A	N/A	N/A	N/A	N/A	N/A
Wetland	3,844	$71,000,000	$169,000,000	$187,000,000	$14,000,000	$34,000,000	$37,000,000
Scrub/shrub	2,612	$49,000,000	$76,000,000	$223,000,000	$10,000,000	$15,000,000	$45,000,000
Impervious	219	$8,000,000	$25,000,000	$32,000,000	$2,000,000	$5,000,000	$6,000,000
TOTAL [2]	**108,641**	**$1,759,000,000**	**$3,565,000,000**	**$4,164,000,000**	**$352,000,000**	**$713,000,000**	**$833,000,000**

Notes:
[1] The potential costs of conserving open water areas are not estimated due to lack of accurate data for this land cover category.
[2] Totals may not sum due to rounding.

Table 4: Estimated Costs of Achieving 40x50 ($2025)

Land Cover Category	Acres Requiring Protection to 2050	Total Cost to 2050 (2030– 2050)			Annual Cost (2030 – 2050)		
		Low	Medium	High	Low	Medium	High
Bare land	1,857	$46,000,000	$100,000,000	$167,000,000	$2,000,000	$5,000,000	$8,000,000
Agricultural	34,664	$651,000,000	$979,000,000	$1,028,000,000	$33,000,000	$49,000,000	$51,000,000
Forest	426,404	$6,729,000,000	$13,724,000,000	$15,475,000,000	$336,000,000	$686,000,000	$774,000,000
Grassland	14,802	$333,000,000	$871,000,000	$1,036,000,000	$17,000,000	$44,000,000	$52,000,000
Water/ submerged land [1]	7,451	N/A	N/A	N/A	N/A	N/A	N/A
Wetland	18,292	$337,000,000	$806,000,000	$891,000,000	$17,000,000	$40,000,000	$45,000,000
Scrub/shrub	12,430	$235,000,000	$360,000,000	$1,062,000,000	$12,000,000	$18,000,000	$53,000,000
Impervious	1,040	$40,000,000	$121,000,000	$152,000,000	$2,000,000	$6,000,000	$8,000,000
TOTAL [2]	**516,940**	**$8,371,000,000**	**$16,962,000,000**	**$19,812,000,000**	**$419,000,000**	**$848,000,000**	**$991,000,000**

Notes:
[1] The potential costs of conserving open water areas are not estimated due to lack of accurate data for this land cover category.
[2] Totals may not sum due to rounding.

Funding Gap to 30x30 & Beyond

The estimated gap in funding for the Commonwealth to reach its 30x30 and 40x50 land conservation goals is estimated as the difference between projected levels of public spending and the total cost of acquiring the additional acres to reach the land conservation goals (estimated in the previous sections).

After current levels of public funding are accounted for, the Commonwealth may require at least an additional $300 million per year and up to roughly $800 million per year to reach the state's 30x30 land conservation goal (Table 5). Achieving the state's 40x50 land conservation goal once the 30x30 goal is reached may require at least an additional $350 million per year and up to more than $900 million per year (2030-2050) (Table 6).

Given the need for the Commonwealth to rapidly scale up the rate of land conservation to meet its 30x30 and 40x50 goals, it is imperative that existing gaps in funding are addressed through sources that are consistent, reliable, and accessible to a broad spectrum of conservation partners in the state.

The current level of public funding is not sufficient. While this gap analysis does not account for private spending for land conservation—which has made up some portion of this gap and will continue to do so—the variability, targeted nature (to certain geographies and/or conservation priorities), and lack of assurance over time limits the role of private funding in fully closing these gaps. In the next section, this report makes a series of specific recommendations to move the Commonwealth toward securing adequate funding to support the critical 30x30 and 40x50 land conservation goals and position itself on the cutting edge of this global movement.

Table 5: Estimated Gap in Funding (2025 – 2030) for 30x30 in Massachusetts ($2025)

Scenario	Total Cost	Public Funding to 2030	Gap (2025 – 2030)	Annual Gap
Low	$1,759,000,000	$279,000,000	$(1,480,000,000)	$(296,000,000)
Medium	$3,565,000,000	$279,000,000	$(3,286,000,000)	$(657,000,000)
High	$4,164,000,000	$279,000,000	$(3,885,000,000)	$(777,000,000)

Notes:
[1] Public funding to 2030 assumes consistent public funding of $55 million per year from 2025-2030.

Table 6: Estimated Gap in Funding (2030 – 2050) for 40x50 in Massachusetts ($2025)

Scenario	Total Cost	Public Funding to 2050	Gap (2030 – 2050)	Annual Gap
Low	$8,371,000,000	$1,115,000,000	$(7,256,000,000)	$(363,000,000)
Medium	$16,962,000,000	$1,115,000,000	$(15,847,000,000)	$(792,000,000)
High	$19,812,000,000	$1,115,000,000	$(18,697,000,000)	$(935,000,000)

Notes:
[1] Public funding to 2050 assumes consistent public funding of $55 million per year from 2030-2050.

Recommendations: Getting to 30x30

A significant increase in land conservation activity in the Commonwealth will be required to meet the 30x30 and 40x50 land conservation goals. Establishing pathways to 30x30 is a non-negotiable step to create the framework the Commonwealth will need to reach the much more ambitious goal of 40x50.

Foundational Recommendations

Establish a dedicated source of state funding for conservation.

Current state funding levels of $25 to $30 million annually cannot support the increase in conservation required to get to the 30x30 and 40x50 land protection goals. State sources of funding and bond-funded capital plan expenditures for conservation are unlikely to significantly increase, though they represent an important piece of the conservation funding pie. Moreover, incremental increases in funding may be negated by rising land values.

The funding gap for meeting the 30x30 goal is significant—this report estimates a range of **$1.8 to $4 billion** in additional funding that will be required to conserve an estimated additional 100,000 acres of land in the Commonwealth by 2030. The gap to meet the 40x50 land conservation goal (an additional 500,000+ acres) is estimated to range from **$8 to $20 billion**. To meet these goals, the Commonwealth will need to leverage a diversity of existing and new conservation tools and funding sources. Because existing local, state, and federal sources of conservation funding are not expected to meaningfully increase, new funding needs to be identified, secured, and ***added*** to existing funding to support greater levels of protection on an annual basis. This is especially important in an environment of rising land values and competing demands for land and natural resources.

A dedicated source of funding would enable the Commonwealth to:

- **Conserve more land**, accelerating the state's ability to achieve biodiversity, climate resilience, equity, and other goals through increased land protection.

- **Unlock additional sources of funding for conservation.** More funding for conservation would allow the state to leverage additional private, philanthropic, and/or federal conservation-related grants by increasing funding available for match. A dedicated stream of funding would also allow greater bonding ability to raise capital up-front for land conservation activities. In addition, because bond funding is limited in supporting capacity building and would likely be used in greater proportion to fund land acquisition and due diligence work, both the direct and leveraged additional sources of funding would enable greater investment into capacity building activities.

  To ensure that additional funding is used to maximum impact, there are other policy, process, and funding changes—such as natural resource protection zoning and expanding the use of Chapter 61 current use tax reduction—that would be highly complementary and should be pursued in tandem with scaling up available funding.

Set a clear, legally binding carbon removal goal to define natural and working lands' contribution to the state's net-zero climate mitigation goal for 2050.

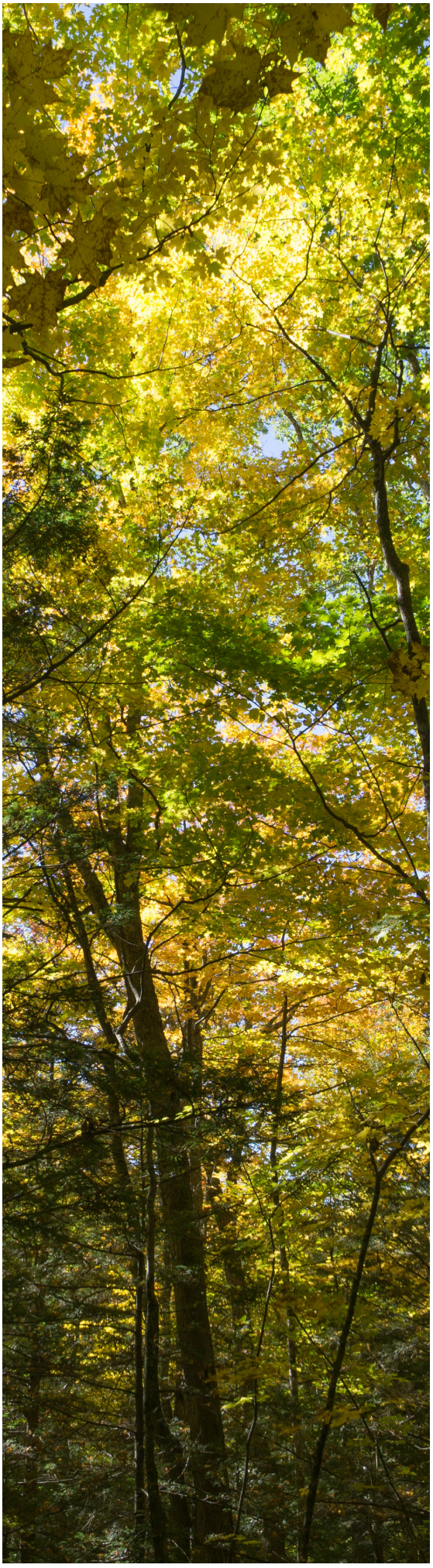
The Commonwealth's landmark 2021 An Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy established in law that each sector of the economy must meet a legally binding limit on greenhouse gas (GHG) emissions each decade, in service of a statewide net-zero GHG emissions goal for 2050. Importantly, the law includes the natural and working lands sector as one that must contribute to net-zero by 2050.[77] Forests, wetlands, and working lands in the Commonwealth currently remove 11 percent of annual GHG emissions, and the state's best estimate is that reaching net-zero emissions by 2050 could require carbon removal equivalent (CO_2e) to roughly 15 percent of current GHG emissions.[78] Moreover, carbon removal by natural processes is a very cost-effective mitigation option; in comparison, estimates for the cost of technological carbon removal (e.g., direct air capture, which is not yet commercially viable) ranges from \$150-\$200/ton CO_2e within the next decade.[79] State policymakers should develop policies and incentives that recognize the value of natural carbon removal as the lowest-cost solution between now and 2050.

Grow public-private partnerships to leverage land protection resources.

The private land conservation sector (land trusts, conservation NGOs and philanthropy from private donors) is taking increased action to fill spending gaps, including the recently launched \$75 million Catalyst Fund for land conservation announced by Mass Audubon in 2024. Increased private investment presents a unique opportunity that should not be missed. If the Commonwealth commits additional, consistent, and reliable funding, the private sector can leverage resources to accelerate the pace of conservation. For instance, if funds are reliable, then the private sector can secure loans, leverage Program-Related Investments (PRIs), and apply short-term capital to buy and hold land when landowners need it the most. Such dedicated and reliable funding takes many of the risks out of land protection that exist today for both landowners and private sector partners. Additionally, the public sector can create and formalize public-private partnerships through cooperative agreements and other means to align resources, expand capacity, and take other actions that help each party meet shared goals. Public-private partnerships are key to accelerating the pace of land conservation in the Commonwealth, but they require greater and more reliable public funding to be successful.

Engage with and integrate Indigenous peoples and local communities into 30x30 land conservation planning and implementation activities.

Land protection in the state, to date, has just begun to address historic disparities of Indigenous peoples and underserved communities. The Commonwealth's commitment to inclusive conservation needs to be at the forefront of 30x30 conservation activities. Including local voices, whether they be from Indigenous peoples or other community groups, is paramount to prioritizing conservation targets using multiple lenses and in achieving a conservation vision for the state that allows the benefits of conservation to flow equitably to multiple rights and stakeholders. The state and land trust community should identify the groups statewide and within local geographies that need to be included in planning and implementing conservation and should then strengthen outreach and communication efforts through ongoing natural resource planning and policy efforts of the Commonwealth. This broader community will need additional capacity and resources to meet the demands of expanded and meaningful conservation engagement.



Best Practices From Other States

A growing number of states are adopting and implementing 30x30 land conservation initiatives. At least eight states have established 30x30 goals through legislation or Executive Order; a smaller number are now moving through implementation phases that provide examples of 30x30 strategies and actions conducive to success of these initiatives. Best practices for the Commonwealth to consider include:

Coordinate conservation and other partners under a 30x30 working group.

Conservation partners have existing active engagement with one another in the state, but there is not yet one working group specifically focused on pushing forward toward 30x30. A coordinated effort around 30x30 could focus multiple groups toward the broad-based benefits that can result from careful and intentional conservation planning.

Develop a 30x30 plan with component strategies.

While a growing number of states have established 30x30 land conservation goals in statute or policy, a limited number have released 30x30 plans or strategies, among them California and New York. Here, the Commonwealth could be on the cutting edge of going beyond goal setting to collaboratively develop workable implementation strategies for meeting land conservation goals. Importantly, these implementation strategies would align closely with other important state-level goals such as renewable energy and affordable housing development.

Increase stakeholder engagement around meeting 30x30 goals.

Ideally, developing the plan would be inclusive of a diverse array of stakeholder groups and stewarded by a trusted party, whether this is a conservation NGO, a state agency, a third-party, or some combination of all three. Philanthropy could be engaged—as it was in California—to provide funding to support this effort.

Develop a 30x30 dashboard and improve conservation data management.

A dashboard, supported by up-to-date data, would coalesce local, regional, and state-level partners around progress toward 30x30. More capacity is needed to track, manage, and disseminate the data and information that would allow practitioners in the state to understand where the Commonwealth is along its journey to 30x30.

Learn from 30x30 comparative examples in other states.

A deeper dive into how other states have charted pathways to 30x30—especially those that are further along, such as California and Maryland—would provide information on best practices and lessons learned that could strengthen the Commonwealth's approach.

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71. Massachusetts Executive Office of Energy and Environmental Affairs. (2022). *Massachusetts Clean Energy and Climate Plan for 2025 and 2030*. Commonwealth of Massachusetts. https://www.mass.gov/info-details/massachusetts-clean-energy-and-climate-plan-for-2025-and-2030. Massachusetts Executive Office of Energy and Environmental Affairs. (2022). *Massachusetts Clean Energy and Climate Plan for 2050*. Commonwealth of Massachusetts. https://www.mass.gov/info-details/massachusetts-clean-energy-and-climate-plan-for-2050.

72. Estimates from MassGIS OpenSpace Data, obtained in October 2024.

73. Scenarios and underlying data are explained in more detail in the Technical Supplement to this report.

74. We assumed that 75% of the acreage is protected through the imposition of perpetual restrictions, including Agricultural Preservation Restrictions (APRs), Watershed Protection Restrictions (WPRs), and Conservation Restrictions (CRs). This is consistent with general trends in land protection across both agency and NGO projects.

75. We assume that on average, restrictions create a 50% diminution in value. The "value" of a restriction is determined by the extent to which the easement diminishes the value of the underlying property for development. For highly buildable land the reduction in value can be as high as 90%, while for more highly constrained land it will be much lower.

76. Only a few other states and jurisdictions—e.g., Washington, California, and the European Union—include the land sector within climate mitigation requirements.

77. Massachusetts Executive Office of Energy and Environmental Affairs. (2025). *Forest Carbon Study*. Commonwealth of Massachusetts. https://www.mass.gov/doc/forest-carbon-study-report-2025/download.

78. World Resource Institute. (2022). *6 Things to Know About Direct Air Capture*. https://www.wri.org/insights/direct-air-capture-resource-considerations-and-costs-carbon-removal.


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