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TO: 495/MetroWest Partnership Stakeholders
FROM: The 495/MetroWest Partnership
RE: Priority Preservation Area Resources and Guidelines

As part of Year 3 of the 495/MetroWest Partnership's Strategic Plan, the 495/MetroWest Partnership aims to publish draft guidelines for Priority Preservation Areas (PPAs). Establishing consistent standards and clear criteria for identifying PPAs is a critical step towards the Partnership's long-term goal of developing an inventory of PPAs within our service area.

While past work by the Partnership has acknowledged the importance of land preservation and its long-term economic, environmental, and quality-of-life benefits, it has also highlighted the potential for conflict between preservation goals and other regional development priorities. As an economic development organization, the Partnership must carefully consider how preservation efforts intersect with other objectives. By undertaking this process identifying guidelines for PPAs, the Partnership hopes to balance the preservation of open spaces with the sustainable growth of housing within our region. Thoughtful, advance consideration of parcels which should be preserved as open space can help forestall the concept of open space preservation being used disingenuously to stop housing growth.

This document is intended to supplement the Partnership's previous work on land preservation by focusing specifically on Priority Preservation Areas. It outlines additional frameworks, resources, and best practices for identifying PPAs in Massachusetts, drawing on models used by other organizations, regional planning agencies, and state programs. This memo also proposes preliminary criteria that can be used to assess and prioritize PPAs in a way that balances conservation values with the broader economic and planning objectives of the 495/MetroWest region.

Resources

Southeastern Regional Planning and Economic Development District (SRPEDD)

The Southeastern Regional Planning and Economic Development District (SRPEDD) has developed a comprehensive approach to identifying Priority Preservation Areas (PPAs) in southeastern Massachusetts, which includes the town of Plainville in our service region. This initiative aims to balance regional growth with the conservation of ecological, cultural, and recreational assets. SRPEDD collaborates with local municipalities to designate areas suitable

for preservation, ensuring that community voices and priorities are represented in regional planning efforts. The process involves extensive community engagement, data analysis, and policy reviews to align preservation efforts with current community goals. Through this methodology, SRPEDD identifies areas of regional significance among the city and town PPAs. All PPAs/PDAs within their scope can be identified on this [map](#).

MassAudubon

Mass Audubon employs a comprehensive, science-based approach to land conservation, focusing on areas that offer significant ecological and climate resilience benefits. Their strategy prioritizes large, connected landscapes—such as forests, wetlands, coastal watersheds, and river corridors—that provide critical habitats, clean air and water, and recreational opportunities. These resilient landscapes are selected based on factors including biodiversity richness, carbon storage capacity, and their ability to adapt to or mitigate the effects of climate change. While Mass Audubon does not explicitly label these areas as Priority Preservation Areas (PPAs), their criteria and objectives closely align with PPA frameworks, emphasizing the protection of lands that offer long-term benefits for both people and wildlife. Through land protection, ecological restoration, and ongoing stewardship, Mass Audubon aims to preserve the natural resources of Massachusetts in the face of development pressures and climate challenges.

Area of Critical Environmental Concern (ACEC) Program

The Area of Critical Environmental Concern (ACEC) Program is a Massachusetts state initiative that designates areas with exceptional natural and cultural resources for special environmental protection. Administered by the Department of Conservation and Recreation (DCR), it focuses on preserving water resources, wildlife habitats, scenic landscapes, and historic features. ACECs are identified and nominated by local residents and communities through a process entailing public input and discussion. Once designated, they receive heightened environmental review under state regulations, especially regarding development. The program shares key similarities with Priority Preservation Areas (PPAs), as both identify land deserving protection due to ecological, cultural, or agricultural value. They serve as tools to guide conservation planning and help maintain community character. While ACECs require formal state designation and regulatory oversight, PPAs are typically identified at the local or regional level to inform funding and land use decisions. Both programs ultimately aim to preserve critical landscapes for long-term environmental and community benefit. Thus far, the ACEC program has identified two parcels within our service region, one in Upton and one in Westborough/Grafton/Upton (#3 and #16 on this [map](#) of all ACECs within the Commonwealth).

BioMap

BioMap is a collaborative initiative between MassWildlife and The Nature Conservancy that guides strategic conservation efforts across Massachusetts. Updated in November 2022, the tool integrates over 40 years of rare species and natural community data with advanced climate resilience information to identify lands and waters critical for biodiversity conservation. It highlights areas such as Core Habitats—essential for the long-term survival of rare species—and Critical Natural Landscapes, which support ecological connectivity and resilience. BioMap serves as a vital resource for state and local governments, land trusts, and conservation organizations to prioritize land protection and stewardship efforts. By focusing on scientifically identified high-value areas, BioMap aligns closely with the objectives of Priority Preservation Areas (PPAs), emphasizing the protection of ecologically significant landscapes. The tool's comprehensive data and mapping capabilities facilitate informed decision-making to preserve Massachusetts' natural heritage.

Agricultural Preservation Restriction (APR) Program

The Agricultural Preservation Restriction (APR) Program is a voluntary initiative by the Massachusetts Department of Agricultural Resources (MDAR) aimed at preserving productive farmland. Through this program, the state compensates landowners by purchasing the difference between the land's fair market value and its agricultural value, in exchange for a permanent deed restriction that ensures the land remains dedicated to agricultural use. This approach not only safeguards valuable farmland from non-agricultural development but also contributes to environmental conservation by maintaining open spaces, supporting biodiversity, and protecting soil health. By preventing urban sprawl and preserving contiguous agricultural landscapes, the APR Program aligns with the objectives of Priority Preservation Areas (PPAs) in promoting sustainable land use and environmental stewardship.

Massachusetts Wildlife Climate Action Tool

The Massachusetts Wildlife Climate Action Tool, developed by UMass Amherst, guides conservation practitioners with identifying and protecting climate-resilient landscapes across the Commonwealth. A core priority is the protection of rare species habitats, recognizing that biodiversity underpins ecosystem resilience and long-term ecological function. Areas with limited natural diversity are less likely to adapt to rapid shifts in species distribution and ecological processes driven by climate change, making it critical to safeguard vulnerable species and at-risk populations. The tool also highlights the importance of conserving rare or unusual natural communities, including those cataloged by the MA Natural Heritage and Endangered Species Program (NHESP) in its Classification of the Natural Communities of Massachusetts—a comprehensive inventory of over 100 terrestrial, palustrine, and estuarine community types. In addition, practitioners are encouraged to prioritize diverse and unique physical sites—areas defined by distinctive combinations of soil, slope, bedrock, and aspect—which will likely continue to support a variety of vegetation and wildlife as environmental conditions change. The conservation of large blocks of habitat, such as forest, grassland, shrubland, and emergent wetland, is another key strategy, as these areas are more buffered from human disturbance and better equipped to sustain natural ecological processes like disturbance events and regional species dynamics. In landscapes where large habitat blocks are scarce, the tool recommends identifying and preserving corridors and connectors to link fragmented ecosystems, enabling species movement and genetic flow. Lastly, protecting wetlands, water bodies, and waterways—including rivers, streams, lakes, ponds, and riparian zones—is essential, not only because many species rely on them for survival, but also because these areas often serve as critical habitat linkages in otherwise developed or fragmented regions.

Town of Amherst

The Town of Amherst is prioritizing the preservation of unprotected open space in its outlying areas as part of a long-established planning goal to focus new development within existing village centers. This strategy helps maintain Amherst's historic settlement pattern—distinct village centers separated by open land—while also limiting the expansion of costly public utilities and services. Emphasis is placed on protecting key wetlands, rivers, tributaries, and surrounding ecosystems to ensure viable habitat, biodiversity, and wildlife corridors. The town targets land preservation in areas identified as priority habitat for rare and endangered species, those with valuable natural resources, farmland with prime agricultural soils, critical watershed lands that supply Amherst's drinking water, and large blocks of contiguous undeveloped open space. Specific efforts include: identifying parcels for acquisition or protection for conservation, recreation, watershed protection, and agriculture; increasing wildlife habitat along riparian

corridors and wooded uplands; and protecting scenic views of natural features like Lawrence Swamp, the Mount Holyoke Range, the Pelham Hills, local ponds, rivers, and farmland. Amherst also protects wetlands, vernal pools, and water sources, supports existing agricultural businesses in traditionally farmed areas, collaborates with the Agriculture Commission to strengthen the local farming economy, and educates the public on the value of working landscapes. These actions align closely with Priority Protection Area (PPA) strategies, emphasizing biodiversity, habitat connectivity, water resource protection, and sustainable land use.

Sudbury Valley Trustees Land Protection Priority Preservation

In June 2023, the Sudbury Valley Trustees (SVT) presented their [land protection prioritization plan](#) to the Water Resources Committee of the 495/MetroWest Partnership, highlighting coordinated conservation efforts across 25 of the 36 communities they serve within the region. Developed in partnership with the Metrowest Conservation Alliance, the plan was shaped through a collaborative working group and stakeholder survey, resulting in four overarching themes: natural services, habitat for biodiversity, climate resiliency, and community conservation. SVT's prioritization focuses on protecting significant blocks of uninterrupted habitat, rare and under-represented natural communities, migration corridors, and areas that provide carbon storage and flood resilience. The plan also emphasizes community-oriented goals such as preserving access to regional trails, supporting environmental justice areas, and conserving green space in and around urban heat islands. Additionally, SVT prioritizes farmland protection, using local knowledge and land cover data to identify existing agricultural lands and prime farmland soils. This targeted, data-informed approach strengthens regional ecological health, increases climate resilience, and supports equitable access to nature in the 495/MetroWest region.

I-90 Corridor Development and Resiliency Plan

The I-90 Corridor Development and Resiliency Plan, an initiative led by MAPC, is a collaborative regional effort to guide land use, zoning, transportation, and infrastructure investment decisions along a 20-mile stretch of I-90 from Watertown to Ashland. This plan brings together state agencies, regional planning organizations, and municipalities to establish a framework for identifying Priority Development Areas (PDAs) and Priority Protection Areas (PPAs), and to advocate for coordinated public investment in a socially, environmentally, and economically sustainable future. The goal of the plan is to foster resilient, equitable, and well-connected communities along the corridor while supporting smart growth and climate adaptation. Thus far, MAPC has identified 39 PDAs/PPAs (11 in Ashland, 17 in Framingham, 11 in Natick) with help from local planners who identified these areas as having high development potential. MAPC is currently open to public feedback for additional PDAs/PPAs to be included in this Resiliency Plan and encourages residents, business owners, and community stakeholders to share their input to help expand the reach of this initiative.

Recommendations for Potential Criteria

When determining the criteria for PPAs, the Partnership should primarily focus on the protection of ecosystems that are home to endangered and rare species. This was a common feature in all the examples listed above, including Amherst's prioritization of rare species habitats, the Massachusetts Wildlife Climate Action Tool, and BioMap's identification of Core Habitats and Critical Natural Landscapes. The protection of endangered species is crucial for the stewardship of local ecosystems as it helps ensure long-term ecological function and resilience in the face of climate change.

Another important criterion, extending beyond ecological conservation, is the protection of the region's water resources to address critical infrastructure demands and resilience needs. Water resource protection should prioritize areas that safeguard drinking water supplies and natural flood management systems. This criterion draws from Amherst's protection of critical watershed lands and buffer zones around wetlands and tributaries, the ACEC Program's protection of aquifers, watersheds, and water bodies, and the Sudbury Valley Trustees' prioritization of water quality and flood storage capacity. Priority areas include groundwater recharge zones, riparian corridors, and natural flood storage areas, ensuring both ecological integrity and infrastructure sustainability.

The Partnership should also consider the need to protect the region's farmland in its criteria for PPAs. Although the region continues to move away from an agrarian economy, agriculture was a consistent priority across several models, including Amherst, the Sudbury Valley Trustees, and the Agricultural Preservation Restriction (APR) Program. If soil within a prospective area of land—especially in a traditionally farmed area—is suitable for agriculture, then the Partnership should consider designating it as a PPA to prevent conversion to other uses and support long-term food security and land sustainability.

The Partnership should also consider designating areas as PPAs that are within Environmental Justice (EJ) communities. These communities may already be environmentally overburdened, and further development within these communities should be approached with caution. The inclusion of the heat island effect during the Sudbury Valley Trustees' priority protection plan is particularly relevant and should be incorporated into the Partnership's criteria. The heat island effect disproportionately affects more urbanized towns and cities—which are often EJ communities—and more should be done to ensure these conditions do not worsen.

Additionally, another aspect of the Sudbury Valley Trustees' plan that should be emulated by the Partnership is the protection of access points to trails and recreational areas. The Partnership advocates for improving livability through enhanced transit options, including rail trail connectivity, walkability, and cycling infrastructure. The protection of access points to these trails will help ensure that they remain viable and equitable recreational assets for the region's residents.

The inclusion of scenic vistas, areas important to cultural landscapes, or historically significant areas should also be something the Partnership considers in its criteria. This aligns with examples like Amherst's protection of viewsheds such as the Mount Holyoke Range and Pelham Hills, and the ACEC Program's focus on scenic and cultural landscapes. The preservation of natural beauty and heritage features is important for community identity and tourism potential.

Climate resilience considerations should also be integrated throughout the Partnership's PPA criteria. The Partnership should prioritize areas that contribute to climate change mitigation and adaptation, including large forest blocks, flood storage capacity, wildlife corridors, and carbon sinks. Tools such as Mass Audubon's resilient landscapes model and BioMap's climate resilience data provide frameworks to support and guide this prioritization effort.

There are sections within the criteria that organizations within the Partnership's region could attempt to exploit. The unchecked loss of undeveloped land to low-density residential development is one such concern. The Partnership does not aim to preserve land for its own sake, but instead to preserve land that supports specific environmental, community, and

infrastructure goals. To ensure clarity and precision, the Partnership should consider refining and layering its criteria using methods like those employed by SRPEDD and Mass Audubon—where priority is given to parcels that meet multiple intersecting values. Prioritizing land based on combined ecological, climate, and community benefit will help ensure that PPA designations are specific, defensible, and aligned with regional needs.

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