This report and associated map provide information about important sites for biodiversity conservation in your area.

This information is intended for conservation planning, and is not intended for use in state regulations.
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Introduction

The Massachusetts Department of Fish & Game, through the Division of Fisheries and Wildlife’s Natural Heritage & Endangered Species Program (NHESP), and The Nature Conservancy’s Massachusetts Program developed BioMap2 to protect the state’s biodiversity in the context of climate change.

BioMap2 combines NHESP’s 30 years of rigorously documented rare species and natural community data with spatial data identifying wildlife species and habitats that were the focus of the Division of Fisheries and Wildlife’s 2005 State Wildlife Action Plan (SWAP). BioMap2 also integrates The Nature Conservancy’s assessment of large, well-connected, and intact ecosystems and landscapes across the Commonwealth, incorporating concepts of ecosystem resilience to address anticipated climate change impacts.

Protection and stewardship of BioMap2 Core Habitat and Critical Natural Landscape is essential to safeguard the diversity of species and their habitats, intact ecosystems, and resilient natural landscapes across Massachusetts.

What Does Status Mean?

The Division of Fisheries and Wildlife determines a status category for each rare species listed under the Massachusetts Endangered Species Act (MESA), M.G.L. c.131A, and its implementing regulations 321 CMR 10.00. Rare species are categorized as Endangered, Threatened or of Special Concern according to the following:

- Endangered species are in danger of extinction throughout all or a significant portion of their range or are in danger of extirpation from Massachusetts.
- Threatened species are likely to become Endangered in Massachusetts in the foreseeable future throughout all or a significant portion of their range.
- Special Concern species have suffered a decline that could threaten the species if allowed to continue unchecked or occur in such small numbers or with such restricted distribution or specialized habitat requirements that they could easily become Threatened in Massachusetts.

In addition NHESP maintains an unofficial watch list of plants that are tracked due to potential conservation interest or concern, but are not regulated under the Massachusetts Endangered Species Act or other laws or regulations. Likewise, described natural communities are not regulated by any law or regulations, but they can help to identify ecologically important areas that are worthy of...
Core Habitat identifies key areas that are critical for the long-term persistence of rare species and other Species of Conservation Concern, as well as a wide diversity of natural communities and intact ecosystems across the Commonwealth. Protection of Core Habitats will contribute to the conservation of specific elements of biodiversity.

Critical Natural Landscape identifies large natural Landscape Blocks that are minimally impacted by development. If protected, these areas will provide habitat for wide-ranging native species, support intact ecological processes, maintain connectivity among habitats, and enhance ecological resilience to natural and anthropogenic disturbances in a rapidly changing world. Areas delineated as Critical Natural Landscape also include buffering upland around wetland, coastal, and aquatic Core Habitats to help ensure their long-term integrity.

The long-term persistence of Massachusetts biological resources requires a determined commitment to land and water conservation. Protection and stewardship of both Critical Natural Landscapes and Core Habitats are needed to realize the biodiversity conservation vision of BioMap2.

Components of Core Habitat
Core Habitat identifies specific areas necessary to promote the long-term persistence of rare species, other Species of Conservation Concern, exemplary natural communities, and intact ecosystems.

Rare Species
There are 432 native plant and animal species listed as Endangered, Threatened or Special Concern under the Massachusetts Endangered Species Act (MESA) based on their rarity, population trends, and threats to survival. For
BioMap2, NHESP staff identified the highest quality habitat sites for each non-marine species based on size, condition, and landscape context.

Other Species of Conservation Concern

In addition to species on the MESA List described previously, the State Wildlife Action Plan (SWAP) identifies 257 wildlife species and 22 natural habitats most in need of conservation within the Commonwealth. BioMap2 includes species-specific habitat areas for 45 of these species and habitat for 17 additional species which was mapped with other coarse-filter and fine-filter approaches.

Priority Natural Communities

Natural communities are assemblages of plant and animal species that share a common environment and occur together repeatedly on the landscape. BioMap2 gives conservation priority to natural communities with limited distribution and to the best examples of more common types.

Vernal Pools

Vernal pools are small, seasonal wetlands that provide important wildlife habitat, especially for amphibians and invertebrate animals that use them to breed. BioMap2 identifies the top 5 percent most interconnected clusters of Potential Vernal Pools in the state.

Forest Cores

In BioMap2, Core Habitat includes the best examples of large, intact forests that are least impacted by roads and development, providing critical habitat for numerous woodland species. For example, the interior forest habitat defined by Forest Cores supports many bird species sensitive to the impacts of roads and development, such as the Black-throated Green Warbler, and helps maintain ecological processes found only in unfragmented forest patches.

Wetland Cores

BioMap2 used an assessment of Ecological Integrity to identify the least disturbed wetlands in the state within undeveloped landscapes—those with intact buffers and little fragmentation or other stressors associated with development. These wetlands are most likely to support critical wetland functions (i.e., natural hydrologic conditions, diverse plant and animal habitats, etc.) and are most likely to maintain these functions into the future.

Aquatic Cores

To delineate integrated and functional ecosystems for fish species and other aquatic
Species of Conservation Concern, beyond the species and exemplary habitats described above, BioMap2 identifies intact river corridors within which important physical and ecological processes of the river or stream occur.

**Components of Critical Natural Landscape**

Critical Natural Landscape identifies intact landscapes in Massachusetts that are better able to support ecological processes and disturbance regimes, and a wide array of species and habitats over long time frames.

**Landscape Blocks**

BioMap2 identifies the most intact large areas of predominately natural vegetation, consisting of contiguous forests, wetlands, rivers, lakes, and ponds, as well as coastal habitats such as barrier beaches and salt marshes.

**Upland Buffers of Wetland and Aquatic Cores**

A variety of analyses were used to identify protective upland buffers around wetlands and rivers.

**Upland Habitat to Support Coastal Adaptation**

BioMap2 identifies undeveloped lands adjacent to and up to one and a half meters above existing salt marshes as Critical Natural Landscapes with high potential to support inland migration of salt marsh and other coastal habitats over the coming century.

The conservation areas identified by BioMap2 are based on breadth and depth of data, scientific expertise, and understanding of Massachusetts' biodiversity. The numerous sources of information and analyses used to create Core Habitat and Critical Natural Landscape are complementary, and outline a comprehensive conservation vision for Massachusetts, from rare species to intact landscapes. In total, these robust analyses define a suite of priority lands and waters that, if permanently protected, will support Massachusetts' natural systems for generations to come.

**Legal Protection of Biodiversity**

BioMap2 presents a powerful vision of what Massachusetts would look like with full protection of the land most important for supporting the Commonwealth's biodiversity. While BioMap2 is a planning tool with no regulatory function, all state-listed species enjoy legal protection under the Massachusetts Endangered Species Act (M.G.L. c.131A) and its implementing regulations (321 CMR 10.00). Wetland habitat of state-listed wildlife is also protected under the Wetlands Protection Act Regulations (310 CMR 10.00). The Natural Heritage Atlas contains maps of Priority Habitats and Estimated Habitats, which are used, respectively, for regulation under the Massachusetts Endangered Species Act and the Wetlands Protection Act. For more information on rare species regulations, and to view Priority and Estimated Habitat maps, please see the Regulatory Review page at [http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/regulatory-review/](http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/regulatory-review/).

BioMap2 is a conservation planning tool that does not, in any way, supplant the Estimated and Priority Habitat Maps which have regulatory significance. Unless and until the BioMap2 vision is fully realized, we must continue to protect our most imperiled species and their habitats.
Understanding Core Habitat Summaries

Following the Town Overview, there is a descriptive summary of each Core Habitat and Critical Natural Landscape that occurs in your city or town. These summaries highlight some of the outstanding characteristics of each Core Habitat and Critical Natural Landscape, and will help you learn more about your city or town’s biodiversity. You can find out more information about many of these species and natural communities by looking at specific fact sheets at www.mass.gov/nhesp.

Additional Information

For copies of the full BioMap2 report, the Technical Report, and an interactive mapping tool, visit the BioMap2 website via the Land Protection and Planning tab at www.mass.gov/nhesp. If you have any questions about this report, or if you need help protecting land for biodiversity in your community, the Natural Heritage & Endangered Species Program staff looks forward to working with you.

Contact the Natural Heritage & Endangered Species Program

By phone  508-389-6360
By fax  508-389-7890
By email  natural.heritage@state.ma.us
By Mail  100 Hartwell Street, Suite 230
West Boylston, MA 01583

The GIS datalayers of BioMap2 are available for download from MassGIS at www.mass.gov/mgis.

For more information on rare species and natural communities, please see our fact sheets online at www.mass.gov/nhesp.
Town Overview

Montgomery lies within the Berkshire Transition Ecoregion, an area that shares characteristics with both the Berkshire ecoregions and the Connecticut River Valley Ecoregion. Forests are transition hardwoods and northern hardwoods. This area drains to the Westfield and Connecticut River basins.

Montgomery at a Glance
- Total Area: 9,643 acres (15.1 square miles)
- Human Population in 2010: 838
- Open space protected in perpetuity: 3,404 acres, or 35.3% percent of total area*
- BioMap2 Core Habitat: 5,839 acres
- BioMap2 Core Habitat Protected: 2,911 acres or 49.9%
- BioMap2 Critical Natural Landscape: 3,223 acres
- BioMap2 Critical Natural Landscape Protected: 1,372 acres or 42.6%.

BioMap2 Components

Core Habitat
- 5 Exemplary or Priority Natural Community Cores
- 1 Forest Core
- 9 Aquatic Cores
- 1 Vernal Pool Core
- 2 Species of Conservation Concern Cores**
  - 1 reptile, 8 insects, 4 plants

Critical Natural Landscape
- 1 Landscape Block
- 8 Aquatic Core Buffers

* Calculated using MassGIS data layer “Protected and Recreational Open Space—March, 2012”.
** See next pages for complete list of species, natural communities and other biodiversity elements.
BioMap2 Core Habitat and Critical Natural Landscape in Montgomery

BioMap2 Core Habitat

BioMap2 Critical Natural Landscape

1 Mile
Species of Conservation Concern, Priority and Exemplary Natural Communities, and Other Elements of Biodiversity in Montgomery

Insects

Moths
- Gerhard’s Underwing, (Catocala herodias gerhardi), SC
- Orange Sallow Moth, (Pyrrhia aurantiago), SC
- Pine Barrens Zanclognatha, (Zanclognatha martha), T
- Pine Barrens Speranza, (Speranza exonerata), SC
- Gold-spotted Ghost Moth, (Sthenopis auratus), Non-listed SWAP

Dragonflies
- Ocellated Darner, (Boyeria grafiana), SC
- Arrow Clubtail, (Stylurus spiniceps), Non-listed SWAP species
- Zebra Clubtail, (Stylurus scudderi), Non-listed SWAP species

Reptiles
- Northern Black Racer, (Coluber constrictor), Non-listed SWAP

Plants
- Smooth Rock-cress, (Boechera laevigata), SC
- Houghton's Flatsedge, (Cyperus houghtonii), E
- Spiked False-oats, (Trisetum spicatum), E
- Threadfoot, (Podostemum ceratophyllum), recently de-listed

Priority Natural Communities
- Riverside Rock Outcrop Community, S3
- High-energy Riverbank, S3
- Ridgetop Pitch Pine - Scrub Oak Community, S2

Exemplary Natural Communities
- Ridgetop Chestnut Oak Forest/Woodland

Other BioMap2 Components
- Forest Core
- Aquatic Core
- Vernal Pool Core
- Landscape Block
- Aquatic Core Buffer

E = Endangered
T = Threatened
SC = Special Concern
S1 = Critically Imperiled communities, typically 5 or fewer documented sites or very few remaining acres in the state.
S2 = Imperiled communities, typically 6-20 sites or few remaining acres in the state.
S3 = Vulnerable communities, typically have 21-100 sites or limited acreage across the state.
BioMap2 Core Habitat in Montgomery

Core IDs correspond with the following element lists and summaries.
Elements of BioMap2 Cores

This section lists all elements of BioMap2 Cores that fall entirely or partially within Montgomery. The elements listed here may not occur within the bounds of Montgomery.

Core 1453

Aquatic Core
Priority & Exemplary Natural Communities
High-energy Riverbank S3
Riverside Rock Outcrop Community S3

Core 1614

Aquatic Core
Priority & Exemplary Natural Communities
High-energy Riverbank S3

Species of Conservation Concern
Creeper Strophitus undulatus SC
Arrow Clubtail Stylurus spiniceps Non-listed SWAP
Ocellated Darner Boyeria grafiana SC
Riffle Snaketail Ophiogomphus carolus T
Zebra Clubtail Stylurus scudder Non-listed SWAP
Northern Black Racer Coluber constrictor Non-listed SWAP

Core 1654

Forest Core
Wetland Core
Aquatic Core

Priority & Exemplary Natural Communities
Ridgetop Chestnut Oak Forest/Woodland
Ridgetop Pitch Pine - Scrub Oak Community S2
Riverside Rock Outcrop Community S3

Species of Conservation Concern
Least Bittern Ixobrychus exilis E

Core 2943A

Aquatic Core
Vernal Pool Core

Priority & Exemplary Natural Communities
High-energy Riverbank S3
Ridgetop Chestnut Oak Forest/Woodland
Ridgetop Pitch Pine - Scrub Oak Community S2
Riverside Rock Outcrop Community S3

Species of Conservation Concern
Houghton’s Flatsedge Cyperus houghtonii E
Smooth Rock-cress Boechera laevigata SC

For more information on rare species and natural communities, please see our fact sheets online at www.mass.gov/nhesp.
### Spiked False Oats
- **Trisetum spicatum**
  - Status: E

### Gerhard’s Underwing Moth
- **Catocala herodias gerhardi**
  - Status: SC

### Orange Sallow Moth
- **Pyrrhia aurantiago**
  - Status: SC

### Pine Barrens Speranza
- **Speranza exonerata**
  - Status: SC

### Pine Barrens Zanclognatha
- **Zanclognatha martha**
  - Status: T

### Gold-spotted Ghost Moth
- **Sthenopsis auratus**
  - Status: Non-listed SWAP

### Arrow Clubtail
- **Stylurus spiniceps**
  - Status: Non-listed SWAP

### Northern Black Racer
- **Coluber constrictor**
  - Status: Non-listed SWAP

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### Core 2943B

#### Aquatic Core

#### Priority & Exemplary Natural Communities
- **Cobble Bar Forest**
- **High-terrace Floodplain Forest**
- **Oak - Tulip Tree Forest**
- **Rich, Mesic Forest Community**
- **Riverine Pointbar and Beach**

#### Species of Conservation Concern

<table>
<thead>
<tr>
<th>Species</th>
<th>Scientific Name</th>
<th>Status</th>
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<tbody>
<tr>
<td>Bristly Buttercup</td>
<td>Ranunculus pensylvanicus</td>
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</tr>
<tr>
<td>Fen Cuckoo Flower</td>
<td>Cardamine dentata</td>
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<td>Great Blue Lobelia</td>
<td>Lobelia siphilitica</td>
<td>E</td>
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<tr>
<td>Many-fruited False-loosestrife</td>
<td>Ludwigia polycarpa</td>
<td>E</td>
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<tr>
<td>Narrow-leaved Spring Beauty</td>
<td>Claytonia virginica</td>
<td>E</td>
</tr>
<tr>
<td>Smooth Rock-cress</td>
<td>Boechera laevigata</td>
<td>SC</td>
</tr>
<tr>
<td>Creeper</td>
<td>Strophitus undulatus</td>
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<td>Triangle Floater</td>
<td>Alasmidonta undulata</td>
<td>Non-listed SWAP</td>
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<td>Orange Sallow Moth</td>
<td>Pyrrhia aurantiago</td>
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<td>Pine Barrens Speranza</td>
<td>Speranza exonerata</td>
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<td>Arrow Clubtail</td>
<td>Stylurus spiniceps</td>
<td>Non-listed SWAP</td>
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<tr>
<td>Ocellated Darner</td>
<td>Boyeria grafiana</td>
<td>SC</td>
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<td>Rapids Clubtail</td>
<td>Gomphus quadricolor</td>
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<td>Riffle Snaketail</td>
<td>Ophiogomphus carolus</td>
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<td>Skillet Clubtail</td>
<td>Gomphus ventricosus</td>
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<tr>
<td>Spine-crowned Clubtail</td>
<td>Gomphus abbreviatus</td>
<td>SC</td>
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<tr>
<td>Stygian Shadowdragon</td>
<td>Neurocordulia yamaskanensis</td>
<td>SC</td>
</tr>
<tr>
<td>Zebra Clubtail</td>
<td>Stylurus scudder</td>
<td>Non-listed SWAP</td>
</tr>
<tr>
<td>Four-toed Salamander</td>
<td>Hemidactylium scutatum</td>
<td>Non-listed SWAP</td>
</tr>
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<td>Northern Leopard Frog</td>
<td>Rana pipiens</td>
<td>Non-listed SWAP</td>
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<tr>
<td>Eastern Box Turtle</td>
<td>Terrapene carolina</td>
<td>SC</td>
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<td>Northern Black Racer</td>
<td>Coluber constrictor</td>
<td>Non-listed SWAP</td>
</tr>
<tr>
<td>Wood Turtle</td>
<td>Glyptemys insculpta</td>
<td>SC</td>
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<tr>
<td>Bald Eagle</td>
<td>Haliaeetus leucocephalus</td>
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</tbody>
</table>
Core Habitat Summaries

Core 1453

A 10-acre Core Habitat featuring Aquatic Core and Priority Natural Communities.

Aquatic Cores are intact river corridors within which important physical and ecological processes of the river or stream occur. They delineate integrated and functional ecosystems for fish species and other aquatic Species of Conservation Concern.

High-Energy Riverbank communities are sparse, open graminoid communities found on cobble and sand deposits along fast-flowing rivers that experience severe flooding and ice scour. This example of High-Energy Riverbank is extensive and relatively pristine, although some invasive exotic species are present and there are some upstream dams affecting the natural flood processes.

Riverside Rock Outcrop communities are sparsely vegetated areas in crevices on riverside rock outcrops where soil accumulates. The community occurs on flood-scoured bedrock along rivers. This small example of Riverside Rock Outcrop is in quite good condition, with little evidence of human disturbance and good species and habitat diversity.

Core 1614

An 810-acre Core Habitat featuring Aquatic Core, Priority Natural Communities, and Species of Conservation Concern.

Aquatic Cores are intact river corridors within which important physical and ecological processes of the river or stream occur. They delineate integrated and functional ecosystems for fish species and other aquatic Species of Conservation Concern.

High-Energy Riverbank communities are sparse, open graminoid communities found on cobble and sand deposits along fast-flowing rivers that experience severe flooding and ice scour. This example of High-Energy Riverbank is extensive and relatively pristine, although some invasive exotic species are present and there are some upstream dams affecting the natural flood processes.

Creepers are freshwater mussels that inhabit low-gradient reaches of small to large rivers with sand or gravel substrates. Cool to warm water with diverse fish assemblages best support Creepers.

The Arrow Clubtail is a large dragonfly whose aquatic nymphs inhabit medium to large, swift-flowing, sandy-bottomed rivers and occasionally large lakes. The terrestrial adults inhabit riparian areas and the surrounding uplands, and return to the water body to mate and lay eggs.

Ocellated Darners are dragonflies whose nymphs inhabit clear, shallow, rocky, swift-flowing streams and large, rocky, poorly vegetated lakes. Adults also inhabit nearby uplands, often forests with mixed coniferous and deciduous trees.

Riffle Snaketails are dragonflies whose larvae inhabit clear, cold, and rocky streams that are fast-flowing with relatively few pools.
The Zebra Clubtail dragonfly inhabits sand-bottomed streams and small rivers with riffles as larvae. Adults feed over the same streams. Surrounding upland forests provide protection while adults reach sexual maturity.

The Northern Black Racer is a snake of young upland forests, shrublands such as pitch pine/scrub oak communities and rock cliffs. Although relatively common, its range appears to be constricting and its abundance has been declining.

**Core 1654**

A 5,454-acre Core Habitat featuring Forest Core, Wetland Core, Aquatic Core, and Species of Conservation Concern.

Forest Cores are the best examples of large, intact forests that are least impacted by roads and development. Forest Cores support many bird species sensitive to the impacts of roads and development and help maintain ecological processes found only in unfragmented forest patches.

This 5,373-acre Forest Core is among the largest 20% of Forest Cores in the state, the fifth largest in the ecoregion, and provides important forest interior habitat. It is only partially protected, primarily through water supply lands.

Wetland Cores are the least disturbed wetlands in the state within undeveloped landscapes—those with intact buffers and little fragmentation or other stressors associated with development. These wetlands are most likely to support critical wetland functions (i.e., natural hydrologic conditions, diverse plant and animal habitats, etc.) and are most likely to maintain these functions into the future.

Aquatic Cores are intact river corridors within which important physical and ecological processes of the river or stream occur. They delineate integrated and functional ecosystems for fish species and other aquatic Species of Conservation Concern.

Least Bitterns are heron-like birds that typically nest in cattail marshes interspersed with open water and are very sensitive to disturbance.

**Core 2943A**

A 6,343-acre section of a larger 93,990-acre Core Habitat featuring Aquatic Core, Vernal Pool Core, Priority Natural Communities, and Species of Conservation Concern.

Mt. Tekoa is part of the extensive Connecticut River Core Habitat, way upstream on the Westfield River. This striking mountain is home to 13 rare and uncommon plants and animals, including the globally rare Pine Barrens Speranza moth, which inhabits the Ridgetop Pitch Pine/Scrub Oak community atop Tekoa itself and adjacent Shatterack Mountain.

High-Energy Riverbank communities are sparse, open graminoid communities found on cobble and sand deposits along fast-flowing rivers that experience severe flooding and ice scour. This example of High-Energy Riverbank is extensive and relatively pristine, although some invasive exotic species are present and there are some upstream dams affecting the natural flood processes.

Ridgetop Chestnut Oak Forests are open forests of dry ridgetops, dominated by chestnut oak with an often dense shrub understory. This community often occupies dry upland sites with thin soil over acidic bedrock on ridges and slopes. This extensive example of Ridgetop Chestnut Oak Forest/Woodland is in
excellent condition, with intact natural processes like fire occurring and with a very large, naturally vegetated buffer.

The Ridgetop Pitch Pine-Scrub Oak community occurs on acidic bedrock along mountain ridges, often in a mosaic with one of the rocky summit communities. This fire-dependent community is tolerant of extremely severe growing conditions. This Core has two examples of Ridgetop Pitch Pine-Scrub Oak Community including one of the largest and best of its kind in the state which burns fairly regularly, increasing its potential to persist here.

Riverside Rock Outcrop communities are sparsely vegetated areas in crevices on riverside rock outcrops where soil accumulates. The community occurs on flood-scoured bedrock along rivers. This small example of Riverside Rock Outcrop is in quite good condition, with little evidence of human disturbance and good species and habitat diversity.

Wetlands Cores are the least disturbed wetlands in the state within undeveloped landscapes—those with intact buffers and little fragmentation or other stressors associated with development. These wetlands are most likely to support critical wetland functions (i.e., natural hydrologic conditions, diverse plant and animal habitats, etc.) and are most likely to maintain these functions into the future.

Aquatic Cores are intact river corridors within which important physical and ecological processes of the river or stream occur. They delineate integrated and functional ecosystems for fish species and other aquatic Species of Conservation Concern.

Core 2943B

A 2,594-acre section of a larger 93,990-acre Core Habitat featuring Aquatic Core, Priority Natural Communities, and Species of Conservation Concern.

The mainstem of the Westfield River is part of the extensive Connecticut River Core Habitat. The river and adjacent uplands support 24 rare and uncommon species, including eight species of dragonflies.

Cobble Bar Forests are found on bands of cobble-sized rocks deposited by powerful rivers during annual flood events. They are characterized by open forests of stunted sycamores and cottonwoods growing on sandy cobble bars. This Cobble Bar Forest occurs in patches along straight stretches of the Westfield River and is in good condition despite a few invasives.

High-Terrace Floodplain Forests are deciduous hardwood forests that occur along riverbanks, above the zone of annual flooding. Although they do not flood annually, they flood often enough for the soil to be moderately enriched. This large example of High-Terrace Floodplain Forest is in discontinuous patches on low bluffs along the Westfield River. It has many exotics and probably does not flood. It is surrounded by forest with development outside the park.

Oak -Tulip Tree Forests are characterized by tall, often emergent, tulip trees, mature red oaks, and scattered other trees. Our occurrences are small patches on moist warm slopes in southern and western Massachusetts. This large occurrence of Oak - Tulip Tree Forest is in very good shape, on protected land in a matrix of Mixed Oak Forest, although in an increasingly urban landscape.

Rich, Mesic Forests are a variant of northern hardwood forests, dominated by sugar maple with a diverse herbaceous layer that includes many spring wild flowers, in a moist, nutrient-rich environment. This
moderate-sized Rich, Mesic Forest with good species diversity is in the 100 year floodplain and includes a large seep and several intermittent streams. It is near a park road and a utility corridor crosses it.

Riverine Pointbar and Beach communities are on exposed sandy beaches of major rivers. This sparsely vegetated community is a subtype of the High-Energy Riverbank community with similarities to Riverside Rock Outcrops. This small Riverine Pointbar and Beach community is on a sandbar next to a Major River Floodplain Forest. Vegetation is patchy with open sand and gravel as the river naturally recedes and floods, but many of the species are exotics.

Aquatic Cores are intact river corridors within which important physical and ecological processes of the river or stream occur. They delineate integrated and functional ecosystems for fish species and other aquatic Species of Conservation Concern.
**BioMap2 Critical Natural Landscape in Montgomery**

Critical Natural Landscape IDs correspond with the following element lists and summaries.
Elements of *BioMap2* Critical Natural Landscapes

This section lists all elements of *BioMap2* Critical Natural Landscapes that fall *entirely or partially* within Montgomery. The elements listed here may not occur within the bounds of Montgomery.

**CNL 698**
- Aquatic Core Buffer

**CNL 714**
- Aquatic Core Buffer

**CNL 721**
- Aquatic Core Buffer

**CNL 726**
- Aquatic Core Buffer

**CNL 754**
- Aquatic Core Buffer

**CNL 850**
- Aquatic Core Buffer
- Landscape Block
- Wetland Core Buffer

**CNL 1322**
- Aquatic Core Buffer
- Landscape Block
- Wetland Core Buffer
Critical Natural Landscape Summaries

CNL 698
A 259-acre Critical Natural Landscape featuring Aquatic Core Buffer.
A variety of analyses were used to identify protective upland buffers around wetlands and rivers. One, the variable width buffers methodology, included the most intact areas around each wetland and river, by extending deeper into surrounding unfragmented habitats than into developed areas adjacent to each wetland. Other upland buffers were identified through the rare species habitat analysis. In this way, the conservation of wetland buffers will support the habitats and functionality of each wetland, and also include adjacent uplands that are important for many species that move between habitat types.

CNL 714
A 35-acre Critical Natural Landscape featuring Aquatic Core Buffer.
A variety of analyses were used to identify protective upland buffers around wetlands and rivers. One, the variable width buffers methodology, included the most intact areas around each wetland and river, by extending deeper into surrounding unfragmented habitats than into developed areas adjacent to each wetland. Other upland buffers were identified through the rare species habitat analysis. In this way, the conservation of wetland buffers will support the habitats and functionality of each wetland, and also include adjacent uplands that are important for many species that move between habitat types.

CNL 721
A 35-acre Critical Natural Landscape featuring Aquatic Core Buffer.
A variety of analyses were used to identify protective upland buffers around wetlands and rivers. One, the variable width buffers methodology, included the most intact areas around each wetland and river, by extending deeper into surrounding unfragmented habitats than into developed areas adjacent to each wetland. Other upland buffers were identified through the rare species habitat analysis. In this way, the conservation of wetland buffers will support the habitats and functionality of each wetland, and also include adjacent uplands that are important for many species that move between habitat types.

CNL 726
A 14-acre Critical Natural Landscape featuring Aquatic Core Buffer.
A variety of analyses were used to identify protective upland buffers around wetlands and rivers. One, the variable width buffers methodology, included the most intact areas around each wetland and river, by extending deeper into surrounding unfragmented habitats than into developed areas adjacent to each wetland. Other upland buffers were identified through the rare species habitat analysis. In this way, the conservation of wetland buffers will support the habitats and functionality of each wetland, and also include adjacent uplands that are important for many species that move between habitat types.
CNL 754

A 74-acre Critical Natural Landscape featuring Aquatic Core Buffer.

A variety of analyses were used to identify protective upland buffers around wetlands and rivers. One, the variable width buffers methodology, included the most intact areas around each wetland and river, by extending deeper into surrounding unfragmented habitats than into developed areas adjacent to each wetland. Other upland buffers were identified through the rare species habitat analysis. In this way, the conservation of wetland buffers will support the habitats and functionality of each wetland, and also include adjacent uplands that are important for many species that move between habitat types.

CNL 850

A 21,004-acre Critical Natural Landscape featuring Aquatic Core Buffer, Wetland Core Buffer and Landscape Block.

A variety of analyses were used to identify protective upland buffers around wetlands and rivers. One, the variable width buffers methodology, included the most intact areas around each wetland and river, by extending deeper into surrounding unfragmented habitats than into developed areas adjacent to each wetland. Other upland buffers were identified through the rare species habitat analysis. In this way, the conservation of wetland buffers will support the habitats and functionality of each wetland, and also include adjacent uplands that are important for many species that move between habitat types.

Landscape Blocks, the primary component of Critical Natural Landscapes, are large areas of intact predominately natural vegetation, consisting of contiguous forests, wetlands, rivers, lakes, and ponds, as well as coastal habitats such as barrier beaches and salt marshes. Pastures and power-line rights-of-way, which are less intensively altered than most developed areas, were also included since they provide habitat and connectivity for many species. Collectively, these natural cover types total 3.6 million acres across the state. An Ecological Integrity assessment was used to identify the most intact and least fragmented areas. These large Landscape Blocks are most likely to maintain dynamic ecological processes such as buffering, connectivity, natural disturbance, and hydrological regimes, all of which help to support wide-ranging wildlife species and many other elements of biodiversity.

In order to identify critical Landscape Blocks in each ecoregion, different Ecological Integrity thresholds were used to select the largest intact landscape patches in each ecoregion while avoiding altered habitat as much as possible. This ecoregional representation accomplishes a key goal of BioMap2 to protect the ecological stages that support a broad suite of biodiversity in the context of climate change. Blocks were defined by major roads, and minimum size thresholds differed among ecoregions to ensure that BioMap2 includes the best of the best in each ecoregion.

This largely forested Landscape Block is 19,465 acres and is among the largest 20% of all Blocks across Massachusetts. These large forested landscapes provide invaluable wildlife habitat and other ecosystem values such as clean drinking water and absorbing carbon from the atmosphere.
CNL 1322

A 288,370-acre Critical Natural Landscape featuring Aquatic Core Buffer, Wetland Core Buffer and Landscape Block.

A variety of analyses were used to identify protective upland buffers around wetlands and rivers. One, the variable width buffers methodology, included the most intact areas around each wetland and river, by extending deeper into surrounding unfragmented habitats than into developed areas adjacent to each wetland. Other upland buffers were identified through the rare species habitat analysis. In this way, the conservation of wetland buffers will support the habitats and functionality of each wetland, and also include adjacent uplands that are important for many species that move between habitat types.

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Help Save Endangered Wildlife!

Please contribute on your Massachusetts income tax form or directly to the Natural Heritage & Endangered Species Fund.

To learn more about the Natural Heritage & Endangered Species Program and the Commonwealth’s rare species, visit our web site at www.mass.gov/nhesp.