

Upper Housatonic River ACEC Nomination

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1. The Upper Housatonic River ACEC Nomination

1.1 Introduction

The nomination of the Upper Housatonic River as an Area of Critical Environmental Concern (ACEC) has been prepared by an ad-hoc Steering Committee on behalf of a coalition of conservationists and Housatonic River watershed stakeholders. The group quietly began working on the feasibility of an ACEC nomination for this stretch of the Housatonic in April 2008. This research then evolved into the preparation of this nomination, and its submittal to the Massachusetts Secretary of Energy and Environmental Affairs (EOEEA).

In the course of preparing the nomination, members of the Steering Committee met with many local citizens, state and local officials, and with representatives of conservation and sportsmen organizations to discuss the purpose and content of a potential nomination. As part of gathering support for this enterprise, a one-page purpose statement was developed, titled *Purpose of Upper Housatonic River ACEC Designation*, which appears in sub-section 1.2 in this nomination, following this Introduction. The formal nomination letter, signed by concerned citizens, further describes the general goals of the nomination. Documentation regarding public outreach and education prior to submitting the nomination is in Appendix G; letters of support are in Appendix H of this nomination.

The Steering Committee sponsored a widely publicized meeting to inform the public about the nomination and the goals and purposes of ACEC designation in the Lenox Town Hall on August 7, 2008. Approximately 135 people attended the meeting, and strong support was voiced for this initiative, as documented in Appendix G. At. Following the formal submittal of this nomination, the Steering Committee and supporters will sponsor at least one additional public meeting prior to the formal public review conducted by ACEC Program staff on behalf of the Secretary.

The basic organization and content of the nomination – the description of resources of the nominated area, the proposed boundary, and criteria for ACEC designation – are designed to meet the requirements set forth in the ACEC Regulations at 301 CMR 12.00. A series of maps and appendices providing supplemental information is included as part of the nomination.

It is our strong belief that the Upper Housatonic River ACEC Nomination more than meets the criteria of the ACEC Regulations and Program, and that the Upper Housatonic River merits designation as a Massachusetts Area of Critical Environmental Concern.

1.2 Purpose

Save The Housatonic is a coalition of conservationists and Housatonic River watershed stakeholders. The coalition has nominated the Upper Housatonic River for designation as an Area of Critical Environmental Concern (ACEC). Portions of Pittsfield, Lenox, Lee, and Washington are included in the nomination.

Our goals for the designation of an ACEC focused on this remarkable natural resource include:

- Raising public awareness of the exceptional resources represented by the Upper Housatonic River, its floodplain and immediate watershed;
- Establishing a more formal and active role for the Commonwealth of Massachusetts in the effort to encourage the most sophisticated standards and methodology for removal and disposal of contaminated materials from the Housatonic River and its floodplain;
- Establishing a framework for long-term public participation in the stewardship of the Upper Housatonic River.

Save The Housatonic regards ACEC designation as an essential tool for giving the Commonwealth of Massachusetts and its citizens a stronger role in the effort to restore the Upper Housatonic River to a healthy, naturally functioning ecosystem with a vital place in the life of Berkshire County's natural and human-made worlds.

The PCB clean-up of the first two miles of the River in Pittsfield, though pursued in good faith by all parties, has taught us hard and valuable lessons about the benefits of some approaches, and the serious limitations of others. We believe ACEC designation will help bring the most successful practices to the fore, while avoiding repetition of the less successful practices.

An ACEC designation will not by itself guarantee or prevent any particular outcome of the anticipated clean-up and restoration. It will, however, emphasize the need to take a long view of the process, and to do our utmost to ensure the best and healthiest future for the teeming, interdependent web of life in the Upper Housatonic River valley.

1.3 Summary

1.3.1 General Purpose of ACEC Nomination and Designation

The purpose of an ACEC nomination and designation is to recognize and to preserve, restore, and enhance critical environmental resource areas that meet criteria established by the Massachusetts Executive Office of Energy and Environmental Affairs (EOEEA).

An ACEC designation directs state agencies to provide higher standards of review and protection for ACECs, and establishes a framework for local, regional, and state stewardship of these areas.

Above all, an ACEC designation educates communities and citizens about the environmental significance of the resources of an ACEC, and fosters greater understanding and involvement for the long-term protection and management of ACECs.

This nomination has been prepared to achieve these general goals of ACEC designation and the ACEC Program, in addition to the purpose and goals set forth in the Purpose of Upper Housatonic River ACEC Nomination (see section 1.2).

1.3.2 Overview of the Upper Housatonic River ACEC Nomination

The primary focus of the nominated area is the 12.9-mile corridor of the Upper Housatonic River from south Pittsfield to north Lee, and portions of the critical supporting watersheds that drain into the River from the east and west. This stretch of the Housatonic is comprised of a complex and rich ecosystem that includes the River itself, adjacent wetlands and floodplains, several tributary streams, abundant wildlife, concentrations of rare species, and the steep, forested, western slopes of October Mountain State Forest. The River and its adjacent uplands also provide an array of dramatic scenic vistas and a wide range of public educational and recreational activities on protected lands, and include important historic and archaeological resources.

According to data generated by the Massachusetts Geographic Information System (MassGIS), the nominated area covers approximately 12,280 acres in portions of four Berkshire communities: Lee, Lenox, Pittsfield, and Washington. The respective approximate acreage of the nominated area within each community is:

- Lee, 1,610 acres
- Lenox, 3,545 acres
- Pittsfield, 3,155 acres
- Washington, 3,970 acres.

According to protected open space data generated by MassGIS, 7,730 acres or 63% of the nominated area is protected open space. The approximate breakdown of open space within the nominated area within each community is:

- Lee, 1,055 acres, or 66%, of the nominated area within Lee
- Lenox, 1,270 acres, or 36%, of the nominated area within Lenox
- Pittsfield, 1,490 acres, or 47%, of the nominated area within Pittsfield
- Washington, 3,915 acres, or 99%, of the nominated area within Washington.

Areas of protected open space are shown on the Protected Open Space Map.

Two Orthophoto Maps (2005) have been included as part of the series of supplemental maps prepared for this nomination, to provide an aerial overview of land use and natural resources within the nominated and immediate surrounding areas.

A Land Use Map (1999) is also included as a supplemental map. MassGIS data generated from this map indicate that approximately 8,375 acres, or 68%, of the nominated area are forested; 985 acres, or 8%, are cropland or pasture; and, 965 acres, or 8%, are developed residential areas. According to additional GIS data, approximately 1,445 acres, or 12%, of the nominated area are wetlands. A mix of other uses, such as industrial, commercial, and mining, covers approximately 5% of the area. Although these land-use data are dated – they are current as of 1999 – they still provide a useful overview of land use within the nominated area.

The resource features of the nominated area are summarized below and described more fully in Section 2 of the nomination document.

1.3.3 Resource Highlights and Significance of Upper Housatonic River ACEC Nomination

According to ACEC Program guidelines, an ACEC must contain at least four of the 11 features listed in the ACEC Regulations, in an ecosystem of regional or statewide significance.

The nominated area contains all nine of the possible inland resource features listed in the ACEC regulations, in an ecosystem with regional or statewide significance.

The concentration, significance, complexity, and diversity of the resources described in this nomination leave no doubt that the proposed area meets the ACEC threshold of regional or statewide significance. As separate resource features, and as a dynamic ecosystem, the Upper Housatonic River corridor is highly significant to both the Berkshires and the state.

1.3.3.1 Habitat Resources

The habitat and wildlife values reflected in the extraordinary number of rare species (31), Certified and Potential Vernal Pools (46); amount of Biomap Core Habitat (4,600 acres, or 37%, of the area, plus another 27% of Biomap Supporting Natural Landscape); and, amount of Living Waters Core Habitat and Critical Supporting Watershed (3,600 acres, or 29%) are more than enough to meet any criteria for regional or statewide significance.

Priority and Estimated Habitats of Rare Species cover approximately 3,440 acres, or 28%, of the nominated area. The listed species include seven Endangered, 13 Threatened, and 11 Special Concern species pursuant to the Massachusetts Endangered Species Act (MESA).

There are three, or portions of three, separate Biomap Core Habitats within the nominated area. These three Biomap Core Habitats were delineated for six exemplary communities, 22 rare plants, two rare butterflies, one rare damselfly, three rare birds, one rare turtle, and four rare salamanders.

The nominated area includes two natural communities documented by Massachusetts Division of Fisheries and Wildlife (DFW) Natural Heritage & Endangered Species Program (NHESP) that are uncommon community types across Massachusetts, an Acidic Graminoid Fen and a Level Bog.

Further, the nominated area is a regionally significant bird habitat and migratory corridor, and has been designated an Important Bird Area by the Massachusetts Audubon Society (Mass Audubon).

Finally, NHESP is currently undertaking a two-year, \$556,950 survey to identify previously unknown rare-species locations, and sites for land acquisition and rare-species restoration.

1.3.3.2 Fishery Habitat

Fishery Habitat includes at least 21.5 river miles of Cold Water Fisheries. DFW sampling records show that Mill Brook, Ashley Brook, Sackett Brook, Washington Mountain Brook, Yokun Brook, Roaring Brook, and the outflow stream of Felton Pond support reproducing populations of brook and/or brown trout. There are approximately thirty fish species collected or suspected present in this section of the Housatonic River.

1.3.3.3. Inland Surface Waters

Surface Waters include approximately 12.9 miles of the Housatonic River, and portions of at least eight named tributary brooks and creeks, all highly important to the water quality, wildlife habitat, and overall resource quality of the nominated area. The area also includes several ponds, lakes, and reservoirs.

1.3.3.4 Inland Wetlands

Wetlands cover approximately 1,445 acres, or 12%, of the total proposed area.

1.3.3.5 Water Supply Areas

Water supply features include Farnham Reservoir, part of the Pittsfield water supply system, and approximately 425 acres of protected watershed lands within the nominated area.

1.3.3.6 Natural Hazard Areas

Natural hazard areas – defined by 100-year flood zones, or steep slope grades averaging 25% to 30% – cover approximately 56% of the nominated area, indicating the overall environmental sensitivity of the nominated area.

1.3.3.7 Agricultural Areas

Lands of agricultural productivity and forestry cover approximately 9,360 acres, or 76%, of the nominated area, about three-fourths of the entire nominated area. The western slopes of October Mountain State Forest include 1,120 acres of designated Forest Reserves. 1830s Forest, considered a valuable forest and habitat resource, covers approximately 3,450 acres, or 28%, of the nominated area. The amount of forest lands, Forest Reserves, and 1830s Forest clearly indicates the importance of these areas as part of the larger Upper Housatonic River corridor and ecosystem.

1.3.3.8 Historic and Archaeological Resources

There is a wealth of documentation of the historic and archaeological resources for the Upper Housatonic River corridor, as well as for the greater Housatonic River valley. The nominated area is part of the Upper Housatonic Valley National Heritage Area. Historic and archaeological resources have been documented in a *Cultural Resources Assessment for the Housatonic River*, prepared for General Electric in April 2008. The old Lenox Train Station is listed on the State and National Registers of Historic Places. There are historic and archaeological sites located within October Mountain State Forest. *A History of the Upper Housatonic River Corridor* by local historian Bernard A. Drew was prepared for this nomination.

1.3.3.9 Special Use Areas

1.3.3.9.1 Public Recreational Areas

Public recreation areas within the nominated area cover approximately 6,800 acres, or over half (55%), of the nominated area. These areas include the 262-acre Mass Audubon Canoe Meadows Wildlife Sanctuary; the 818-acre DFW George L. Darey Wildlife Management Area (Darey WMA); the 200-acre Post Farm managed by the Lenox Conservation Commission; several boat access sites; and, approximately 5,520 acres of October Mountain State Forest, owned and managed by the state Department of Conservation and Recreation (DCR).

The Darey WMA is one of the most heavily utilized wildlife management areas in western Massachusetts for all types of passive recreation including hunting, fishing, trapping, hiking, canoeing/kayaking, bird watching, and wildlife viewing.

Canoe Meadows contains outstanding wildlife habitat resources, and is dedicated to wildlife habitat conservation, and public education. Trails in the Sanctuary are used extensively by the public for passive recreation, wildlife appreciation, and group programs.

October Mountain State Forest is the largest state forest in Massachusetts at 16,500 acres. Approximately 5,520 acres of the Forest are located within the proposed ACEC (or 45% of the total area of the proposed ACEC.)

1.3.3.9.2 Significant Scenic Sites

Significant Scenic Sites are located throughout the nominated area, ranging from the river corridor to the upper reaches of October Mountain State Forest.

1.3.4 Proposed Upper Housatonic River ACEC Boundary

1.3.4.1 ACEC Program Guidelines for Proposing an ACEC Boundary

The draft proposed boundary addresses the guidelines set forth by the ACEC Program, and is intended to be as conservative as possible. The guidelines state that the proposed boundary should include the minimum area necessary to protect and preserve the critical resources of the proposed ACEC, and, by using such markers as roads or other rights-of-way, should be easily recognized by the general public and local and state regulatory agencies working in the area.

The proposed boundary for the Upper Housatonic River ACEC follows roads, other rights-of-way, and natural resource features that have been used in previous ACEC designations, such as the 200-foot Riverfront Area adjacent to perennial rivers and streams and the 100-foot wetlands Buffer Zone pursuant to the Wetlands Protection Act Regulations (310 CMR 10.00).

1.3.4.2 General Extent of Proposed Boundary

As stated above, the primary focus of the nominated area is the 12.9-mile corridor of the Upper Housatonic River from south Pittsfield to north Lee, and portions of the critical supporting watersheds that drain into the River from the east and west. The northern extent of the proposed boundary of the Upper Housatonic River ACEC includes the confluence of the East and West Branches of the Housatonic River in Pittsfield. The southern extent runs to the Golden Hill Road bridge in Lee. The westerly boundary generally follows roadways that run in a north-south direction parallel to the Housatonic River in Pittsfield, Lenox, and Lee, and includes gently rolling uplands that drain into the River. The easterly boundary generally includes and follows critical tributary streams and sub-watersheds that drain into the River, located mostly in the steep, western slopes of October Mountain State Forest, in Lee, Washington, and Pittsfield. The proposed boundary covers approximately 12,280 acres in portions of four communities: Lee, Lenox, Pittsfield, and Washington.

1.3.5 Criteria for Designation of the Upper Housatonic River as an ACEC

The ACEC Regulations describe nine factors that the Secretary of EOEEA must consider in designating an area as an ACEC.

As stated in the Regulations, these factors need not be weighed equally, nor must all of these factors be present for an area to be designated. While the more factors an area contains, the more likely its designation, the strong presence of even a single factor may be sufficient for designation.

1.3.5.1 Quality, Productivity, and Uniqueness

The following three factors can be grouped together in terms of the resources described above. Based upon the resources described above, all three factors are strongly present regarding the proposed ACEC, and support ACEC designation. These three factors alone are sufficient for designation:

- Quality of the Natural Characteristics – The area possesses outstanding natural characteristics
- Productivity – The area is rich in biological richness and diversity
- Uniqueness of Area – The area is unique from a regional, state, or national perspective.

As outlined in the Description of the Resources Located within the Boundary of the Upper Housatonic River ACEC Nomination, especially the Summary of Resource Highlights and Significance, the concentration, significance, complexity, and diversity of the resources described above leave no doubt that the proposed area meets the ACEC threshold of regional or statewide significance. As separate resource features, and as a dynamic ecosystem, the Upper Housatonic River corridor is highly significant to both the Berkshires and the state.

1.3.5.2 Threats and Impacts

The next four factors relate to potential or actual threats to the area:

- Threat to the Public Health Through Inappropriate Use
- Imminence of Threat to the Resource
- Irreversibility of Impact
- Magnitude of Impact.

High levels of polychlorinated biphenyls (PCBs) currently contaminate the Upper Housatonic River. General Electric is in the process of working with the Environmental Protection Agency (EPA) and other stakeholders to develop a proposed clean-up plan for the River. There is concern that widespread alteration of the River corridor could result from the clean-up – including highly adverse impacts to wildlife habitat, and to recreational, scenic, and economic values. There is strong local interest and support for ensuring the highest standard of river remediation and restoration, as evidenced by the public comments submitted to EPA in May 2008.

The clean-up poses a large-scale and imminent potential threat to the Upper Housatonic River. This nomination seeks to help ensure that the clean-up is completed in a manner that will preserve the high-quality resources, and social and habitat values of the River that are described in the nomination. All four of these factors – threat through inappropriate use, imminence of threat, irreversibility of impact, and magnitude of impact – strongly support ACEC designation.

1.3.5.3 Economic Benefits

The area has intrinsic values that are important to a region's economic stability, including recreation and tourism.

Recreational areas providing economic benefits include the Darey WMA, Canoe Meadows, the Lenox Post Farm, and October Mountain State Forest. These areas cover approximately 6,800 acres, or over half (55%), of the nominated area, and provide recreational opportunities to thousands of residents and visitors each year. The nominated area is part of the federally-designated Upper Housatonic Valley National Heritage Area, underscoring its value and significance to tourism. Finally, farming and forestry activities described above contribute to the region's economy. The nominated area provides significant and multiple economic benefits to the region.

1.3.5.4 Supporting Factors

There are several Supporting Factors listed in the ACEC Regulations as criteria for considering designation. These include strong public consensus on the intrinsic value of the area; public awareness of the importance of the area; legislative identification of the value of the resources; the lack of coordinated local control because the area is contained within more than one municipality; ownership of some or all of the resource by the local, state or federal government; or, the existence of supplementing management programs in the area.

All of these factors support ACEC designation:

1.3.5.4.1 Strong public consensus on the intrinsic value of the area, and public awareness of the importance of the area

The outpouring of public comment and concern regarding the recently proposed PCB clean-up and restoration of the Housatonic River reflects the public's strong awareness of the intrinsic value of the area. As listed on the EPA website, over 110 public comments were submitted regarding the March 2008 GE Corrective Measures Study, from over 150 citizens, public officials and agencies, and non-governmental groups. The intensive recreational use of the public lands in this area also reflects the importance of the area.

1.3.5.4.2 Legislative identification of the value of the resources

The U.S. Congress has included this area as part of the Upper Housatonic Valley National Heritage Area.

1.3.5.4.3 Lack of coordinated local control because the area is contained within more than one municipality

The nominated area is located with four municipalities. Currently, there is no inter-municipal coordination to provide resource protection or stewardship for the area.

1.3.5.4.4 Ownership of some or all of the resource by the local, state, or federal government

Public lands cover over half of the nominated area.

1.3.5.4.5 The existence of supplementing management programs in the area

Mass Audubon and DFW have longstanding programs of research, monitoring, management, and public education concerning their lands within the nominated area.

In conclusion, the Upper Housatonic River region clearly merits designation as an Area of Critical Environmental Concern based upon all the criteria listed in the ACEC Regulations at 301 CMR 12.09.

2. Description of Resources Located within the Boundary of the Upper Housatonic River ACEC Nomination

2.1 Resources Summary

According to ACEC Program guidelines, an ACEC must contain at least four of the 11 features listed in the ACEC Regulations, in an ecosystem of regional or statewide significance. This section of the nomination uses the specific features listed in the ACEC Regulations as a format to describe these resources.

The nominated area contains all nine of the possible inland resource features listed in the ACEC Regulations, in an ecosystem of regional or statewide significance.

2.2 Resources Overview

The primary focus of the nominated area is the 12.9-mile corridor of the Upper Housatonic River from south Pittsfield to north Lee, and portions of the critical supporting watersheds that drain into the River from the east and west. This stretch of the Housatonic is comprised of a complex and rich ecosystem that includes the River itself, adjacent wetlands and floodplains, several tributary streams, abundant wildlife, concentrations of rare species, and the steep, forested, western slopes of October Mountain State Forest. The River and its adjacent uplands also provide an array of dramatic scenic vistas and a wide range of public educational and recreational activities on protected lands, and include important historic and archaeological resources. The size of the proposed ACEC is approximately 12,280 acres, located in portions of four communities: Lee, Lenox, Pittsfield, and Washington.

Several Massachusetts Geographic Information System (MassGIS) resource overlay maps are included as part of this nomination to help describe and document the resources of the nominated area. These maps show surface waters, sub-drainage basins, wetlands, floodplains, wildlife habitat (especially rare-species habitat), forestry resources, protected open space, land use and land coverage, aerial photos (orthophotos), and other land and resource features. These maps are listed in Appendix A, and are referenced in the text where appropriate.

2.3 Resource Features

The specific resource features listed in the ACEC Regulations are described as follows:

2.3.1 Habitat Resources

The ACEC Regulations list Habitat Resources as habitat for threatened or endangered plant or animal species, habitat for species of special concern, or other significant wildlife habitat.

The habitat resources of the nominated area are extraordinary. This section includes material and information from a variety of sources, including the Massachusetts Division of Fisheries and Wildlife (DFW) Natural Heritage & Endangered Species Program (NHESP), the DFW Western District Office, and Mass Audubon. The Habitat/Wildlife Resources Map shows much of the information described below.

2.3.1.1 Rare Species

There are 31 documented state-listed rare species located within the proposed ACEC. The listed species include seven Endangered, 13 Threatened, and 11 Special Concern, pursuant to the Massachusetts Endangered Species Act (MESA). A list of these species and their MESA status is provided in a June 24, 2008 letter from the Division of Fisheries and Wildlife, Natural Heritage & Endangered Species Program (NHESP), included as Appendix E. Priority and Estimated Habitats of Rare Species are located along the Housatonic River, tributary streams, and within October Mountain State Forest. These habitats cover 3,440 acres, or 28% (over a quarter), of the proposed ACEC.

2.3.1.1.1 Biomap Core Habitat and Supporting Natural Landscape

There are portions of three separate Biomap Core Habitats within the nominated area. BioMap Core Habitats are those areas of the state delineated by the NHESP which, if protected, will conserve rare species and exemplary natural communities for the future. These three Biomap Core Habitats were delineated for six exemplary communities, 22 rare plants, two rare butterflies, one rare damselfly, three rare birds, one rare turtle, and four rare salamanders. Biomap Core Habitat covers 4,600 acres, or 37%, of the proposed ACEC (over one third); Biomap Supporting Natural Landscape, also delineated by the NHESP, covers another 3,270 acres, or 27% (over one quarter), of the proposed ACEC. Combined Biomap areas cover 7,870, or 64%, of the proposed ACEC.

2.3.1.1.2 Living Waters Core Habitat and Critical Supporting Watershed

Living Waters Core Habitat, delineated by the NHESP, covers approximately 55 acres of the nominated area, and includes Morewood Lake and part of the Housatonic River in Pittsfield. These Living Water Core Habitats are the aquatic counterpart to BioMap Core Habitat. Living Waters Critical Supporting Watershed (areas that have the greatest potential to influence the species living in Core Habitats) is located along the rest of the Housatonic River, its adjacent floodplains and

wetland, and certain tributary streams, including Yokun, Willow, Washington Mountain, Ashley, and Sackett Brooks, and the stream that flows from Felton Pond. Critical Supporting Watershed covers 3,660 acres, or 29% (over a quarter), of the proposed ACEC.

2.3.1.1.3 Exemplary Natural Communities

There are two NHESP-documented natural communities within the proposed ACEC that are uncommon community types across Massachusetts, an Acidic Graminoid Fen and a Level Bog. These communities cover about 17 acres.

2.3.1.1.4 Certified and Potential Vernal Pools

There are two Certified Vernal Pools and 44 Potential Vernal Pools located within the proposed ACEC.

2.3.1.1.5 Rare Species Research

Additional rare species research is currently underway, further underscoring the importance of this area and the likelihood that additional data will be produced regarding this area. NHESP is currently undertaking a two-year, \$556,950 survey, funded by General Electric through a Natural Resources Damages fund, to identify previously unknown rare-species locations, and sites for land acquisition and rare-species restoration.

2.3.1.2 Other Significant Wildlife Habitat

2.3.1.2.1 Bird Habitat and Migratory Corridor

Mass Audubon has designated the Upper Housatonic River Valley as an Important Bird Area (IBA), underscoring its significance as bird habitat and as a migratory corridor. More than 200 species of birds have been recorded within the proposed ACEC since 1970. Many important bird species breed in the area, such as the state-endangered American Bittern and state-listed Common Moorhen. Up to several pairs of the state-endangered American Bittern breed in the area annually. A special concern species, the Common Moorhen, is an uncommon though regular breeder in the area. Other high-conservation priority species represented by at least 25 breeding pairs include: American Black Duck, American Woodcock, Hairy Woodpecker, Eastern Wood-Pewee, Alder Flycatcher, Least Flycatcher, Great Crested Flycatcher, Eastern Kingbird, Veery, Chestnut-sided Warbler, American Redstart, Indigo Bunting, and Rose-breasted Grosbeak. In addition, the following species with more than one percent of their entire breeding population within Massachusetts breed in the area: Eastern Phoebe, Wood Thrush, Gray Catbird, Blue-winged Warbler, Scarlet Tanager, and Baltimore Oriole. Riparian Forest is present along this portion of the Housatonic River. Characteristic breeding bird species of this increasingly rare habitat type include: Wood Duck, Hooded Merganser, Warbling and Yellow-throated Vireos, Veery, and Blue-gray Gnatcatcher. Rare and/or declining species

representative of extensive freshwater marshlands that breed on the area include: American Bittern, Sora, Virginia Rail, King Rail, and Common Moorhen. (See Appendix C, Mass Audubon Massachusetts Important Bird Area for more information.) In addition, according to the surveys conducted by DFW, the River and adjacent backwaters are both a breeding and a major migratory waterfowl area.

2.3.1.2.2 Additional Wildlife Resources

According to DFW, the diversity in habitat and community types within the proposed boundaries results in substantial use by wildlife species both common and rare. Large fauna with wide home ranges such as black bear, moose, deer, and coyote utilize the area for food and cover. Forest mammals such as fisher, squirrel, and bobcat benefit from the forested western slopes of October Mountain State Forest, while aquatic or semi-aquatic mammals such as beaver, otter, mink, and muskrat utilize the River and the supporting floodplain to meet their biological requirements. Open field or early successional dependent species such as grouse, rabbits, and other small mammals can be found in the fields and shrub-dominated areas. Wild turkeys are also present in strong numbers throughout the proposed area.

2.3.2 Fishery Habitat

2.3.2.1 Cold Water Fisheries

Cold Water Fisheries are designated by the Fisheries Section of DFW because they support breeding populations of native brook trout. Within the nominated area, there are 21.5 miles of Cold Water Fisheries located in the Housatonic River and portions of Yokun Brook, Washington Mountain Brook, Mill Brook, Ashley Brook, and Sackett Brook.

[Note: August 2008 sampling by DFW staff found wild reproducing populations of native brook trout in Roaring Brook and the outflow stream of Felton Pond.]

DFW states that most of the tributaries included in the ACEC proposal support cold water species throughout the year, citing the importance of small streams and drainages, even when site-specific data are lacking. DFW further explains that fish will utilize these habitats on a seasonal basis or as a thermal refuge at certain times of the year. When the productive nature of the watershed is coupled with cool, high quality water, the combination can result in substantial, sustainable, cold water fisheries populations. (See DFW statement regarding Fisheries resources in Appendix D.)

2.3.2.2 Additional Fisheries Resources

According to DFW, there are approximately 30 fish species collected or suspected present in the section of the Housatonic River within the nominated area, including the reach of the River below Woods Pond Dam. (See DFW statement regarding Fisheries resources in Appendix D for more details.) This section of the Housatonic

River is extremely popular for recreational fishing. Woods Pond is one of the most heavily used water bodies for ice fishing in the region.

2.3.3 Inland Surface Waters

The nominated area includes approximately 12.9 miles of the Housatonic River, and portions of at least eight named tributary brooks and creeks. These water bodies cover approximately 370 acres, according to MassGIS, and are shown on the Water/Wetland Resources Map.

2.3.3.1 Tributaries from West

Yokun Brook and Willow Creek are the chief named tributary streams flowing into the Housatonic from the west.

2.3.3.2 Tributaries from East

Sackett, Ashley, Sykes, Mill, Roaring, and Washington Mountain Brooks are all highly important tributary streams that flow into the Housatonic from the east, from October Mountain State Forest or adjacent watershed lands. The proposed ACEC boundary is designed to include important portions of the steep slopes of the sub-basins of these surface waters, all of which are integral to the integrity and health of the Housatonic River corridor.

2.3.3.3 Cold Water Fisheries

The Housatonic River and several tributary streams include 21.5 river miles of Cold Water Fisheries, reflecting the high habitat value of these waters.

2.3.3.4 Ponds, Lakes, and Reservoirs

The area also includes several ponds, lakes, and reservoirs:

- Morewood Lake in Pittsfield, located adjacent to wetlands and part of an important Rare Species Habitat
- Woods Pond, located in the main stem of the Housatonic River in Lee and Lenox, created by a dam first constructed in 1890 (in 1989, a new dam was constructed approximately 200 feet downstream of the historic dam)
- Felton Lake (a.k.a. Felton Pond) and Halfway Pond in October Mountain State Forest
- Farnham Reservoir, created by a 900-foot dam around 1912 as part of the Pittsfield water supply system; Farnham Reservoir provides public drinking water to the Pittsfield water system.

[Note: The current USGS topographical maps of the area show Washington Mountain Lake in October Mountain State Forest as a large open water-body. However, since the USGS maps were prepared, much of the “lake” has been drained, and the area now consists of a smaller open water-body and an extensive wetland marsh.]

2.3.4 Inland Wetlands

The nominated area includes extensive freshwater wetlands located along the Housatonic River, generally coincident with the 100-year flood zone as mapped by the Federal Emergency Management Agency (FEMA).

Other important wetland areas include wetlands located adjacent to Morewood Lake in Pittsfield, Halfway Pond and Washington Mountain Lake (a.k.a. Washington Mountain Marsh) in October Mountain State Forest, and tributary streams to the Housatonic such as Sackett and Yokun Brooks.

These wetlands are shown on the Water/Wetland Resources Map, based upon 1:5000-scale wetlands mapping by the state Department of Environmental Protection (DEP). According to MassGIS, these wetlands cover approximately 1,445 acres, or 12%, of the total proposed area.

Wetlands within the nominated area provide valuable and extensive wildlife and Rare Species habitat, including Critical Supporting Watershed, Priority Habitat, and Core Habitat as shown on the Habitat/Wildlife Resources Map.

2.3.5 Water Supply Areas

Farnham Reservoir, located in the Town of Washington, is an integral part of the Pittsfield water supply system. It is located within the Mill Brook drainage sub-basin, which flows into the Housatonic. The portion of the sub-basin that flows into Farnham Reservoir is classified as an Outstanding Resource Water, defined by the state as surface waters that flow directly into public surface water supplies. The Farnham Reservoir, the Mill Brook sub-basin, and the Outstanding Resource Water area within the proposed ACEC are shown on the Water/Wetlands Map. Approximately 125 acres of this Outstanding Resource Water sub-basin are located within the proposed ACEC. As stated above, the reservoir was created by constructing a 900-foot dam around 1912.

The drinking water for the city of Pittsfield and its water supply system for other customers in the towns of Dalton, Lenox, and Lanesborough comes from six surface water reservoirs. These reservoirs are Cleveland Reservoir and Sackett Reservoir, both located in the Town of Hinsdale; and, Ashley Lake, Farnham Reservoir, Sandwash Reservoir, and Lower Ashley Intake Reservoir, all located in the Town of Washington. The City owns most of the land around these reservoirs and restricts the use of the land and the reservoirs to prevent contamination of its drinking water supply sources. Approximately 425 acres of Pittsfield-owned watershed protection lands are included within the nominated area.

2.3.6 Natural Hazard Areas

The ACEC Regulations list floodplains and erosion areas under the resource feature of Natural Hazard Areas.

There are extensive floodplains (100-year FEMA flood zone) located along the Housatonic River and some tributary streams. As stated above, many of these floodplains are located in wetlands. In addition to these floodplains and wetlands located along the Housatonic River, there are areas of significant floodplains located at the southern edge of the proposed ACEC in Lee, along the Housatonic and extending up along Washington Mountain Brook, along Sackett Brook, and around Morewood Lake, as shown on the Water/Wetlands Map.

According to MassGIS, approximately 2,405 acres are located in the 100-year FEMA flood zone, or approximately 20% of the nominated area. Given the amount of upland areas within the nominated area, this percentage indicates that floodplains are an important feature of the nominated area.

Steep slopes are located predominately on the eastern side of the Housatonic, as shown on the Forest Resources/Steep Slopes Map. These steep slopes are defined as areas containing slope grades of 25% or more, according to the United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) soils surveys. These steep slopes closely parallel the drainage sub-basins used to delineate the proposed boundary of the ACEC, as show on this map. According to MassGIS, approximately 4,495 acres, or 37%, of the nominated areas are included within these slopes.

Based upon MassGIS data, using the 100-year FEMA flood zone and areas of steep slopes (areas containing slope grades of at least 25%), approximately 56% of the nominated area falls within this natural hazard category, indicating the overall environmental sensitivity of the nominated area.

2.3.7 Agricultural Areas

The ACEC Regulations list Agricultural Areas as lands of agricultural productivity and forestry. As described below, these areas cover approximately 9,360 acres, or 76%, of the nominated area – about three-fourths of the entire nominated area.

2.3.7.1 Farming

Farming has historically been a major land use and economic activity located along this stretch of the River corridor. Some of this activity is described in the *History of the Upper Housatonic River Corridor* by Bernard A. Drew, included as Appendix F of the nomination. Currently, farming activities located on the uplands adjacent to or in close proximity to the River corridor include Tweenbrook Farm, Pulpit Rock Farm, and Noble Farm.

According to 1999 land-use data generated from the Land Use Map, approximately 985 acres, or 8%, of land within the nominated area are shown as agricultural cropland or pasture.

2.3.7.2 Forest Lands

Extensive forest lands are located in the steeply sloped areas to the east of the Housatonic River, including thousands of acres in October Mountain State Forest managed by the Department of Conservation and Recreation (DCR), and adjacent watershed lands managed as part of the Pittsfield water supply system. According to data derived from the Land Use Map, forested areas cover approximately 8,375 acres, or 68%, of the nominated area. Forest management activities are ongoing within the State Forest.

Information regarding the amount of forest lands, Forest Reserves, and 1830s Forest clearly indicates the importance of these areas as part of the larger Upper Housatonic River corridor and ecosystem, and as part of the nominated area.

General forest cover is shown on the Land Use Map, as well as on the Orthophoto Maps; the DCR Forest Reserves and 1830s Forest are shown on the Forest Resources/Steep Slopes Map.

2.3.7.3 Forest Reserves

The western slopes of the State Forest include 1,120 acres of designated Forest Reserves, pursuant to the state's Green Certification Program and a *Central Berkshire District Forest Resource Management Plan* prepared and approved in 2007 by DCR. This acreage represents about 20% of the DCR state forest located within the nominated area. Special forestry and recreation management guidelines are applied to these areas, for example, limiting recreation uses to low-impact recreational activities such as hiking, hunting, and fishing, and greatly limiting forest management activities to very specific vegetation-management purposes. More information is available in the DCR *Central Berkshire District Forest Resource Management Plan*.

2.3.7.4 1830s Forest

Lands mapped in the 1830s as forest, considered a valuable forest and habitat resource, cover approximately 3,450 acres, or 28%, of the nominated area.

2.3.8 Historic and Archaeological Resources

The ACEC Regulations list buildings, sites, or districts of historic, archaeological, or paleontological significance. There is a wealth of historic and archaeological resource material and documentation for the Upper Housatonic River corridor, as well as for the greater Housatonic River valley. The nominated area is part of the Upper Housatonic Valley National Heritage Area. Historic and archaeological

resources have been documented in a *Cultural Resources Assessment for the Housatonic River* prepared for General Electric in April 2008. The old Lenox Train Station is listed on the State and National Registers of Historic Places, and is home to the Berkshire Scenic Railway, which maintains a museum and operates occasional excursion trains. There are historic and archaeological sites located within October Mountain State Forest. Finally, *A History of the Upper Housatonic River Corridor* by local historian Bernard A. Drew was prepared in June 2008 for this nomination, and is included in the nomination as Appendix F.

2.3.8.1 Upper Housatonic Valley National Heritage Area

The U.S. Congress designated the Upper Housatonic Valley National Heritage Area in 2006. According to the National Park Service, a Natural Heritage Area is “a place designated by the United States Congress where natural, cultural, historic and recreational resources combine to form a cohesive, nationally-distinctive landscape arising from patterns of human activity shaped by geography. These areas tell nationally important stories about our nation and are representative of the national experience through both the physical features that remain and the traditions that have evolved within them.”

The upper Housatonic valley is noted for its scenic landscape and traditional New England towns. Writers, artists, and vacationers have visited the region for over 150 years, making it one of the country's leading cultural resorts. The Upper Housatonic Valley National Heritage Area includes 29 communities in the hilly terrain of western Massachusetts and northwestern Connecticut, and to date is among 40 such areas designated by Congress.

2.3.8.2 Lenox Train Station

The old Lenox Train Station is listed on the State and National Registers of Historic Places. It is located in Lenox just west of Woods Pond and is home to the Berkshire Scenic Railway. Properties listed in the State and National Registers include districts, sites, and buildings that are significant in American history and culture.

2.3.8.3 Archaeological Sites

Several archaeological sites located within the nominated area have been documented by the 2008 *Cultural Resources Assessment for the Housatonic River* prepared for General Electric in April 2008. According to this Assessment, the area around the confluence of the West and East Branches of the Housatonic River has one of the highest densities of previously recorded prehistoric sites in the region. Other sections of the River corridor that are close to the River and relatively level and well drained have high potential for containing prehistoric sites. More information is available in the *Assessment* report.

2.3.8.4 Civilian Conservation Corps (CCC)

The legacy of Civilian Conservation Corps (CCC) at October Mountain State Forest is visible throughout the state forest, particularly in the road and trail network constructed by the CCC during the 1930s. The Felton Pond and Schermerhorn Gorge recreational areas are the most significant recreational features constructed by the CCC that remain today.

2.3.8.5 *A History of the Upper Housatonic River Corridor*

A History of the Upper Housatonic River Corridor by local historian Bernard A. Drew provides a wonderful and entertaining overview of the history of the nominated and surrounding area. Excerpts and brief summaries of text are included below – the entire History is included in Appendix F.

- The land and river corridor described in this overview, which includes a 13-mile stretch of the Upper Housatonic River and a portion of the western slopes and forests of October Mountain State Forest, shares Berkshire's rich cultural, industrial, agricultural, and natural history, and excels in many aspects. ... A popular fishing area for native Mohicans, the river valley followed traditional patterns of colonial settlement and agricultural activity, was innovative in literary and industrial endeavor, and set itself apart in large-acreage land preservation. If divided into thirds, the area today is a comfortable mix of suburbia and farming remnants in southeast Pittsfield, light industry and village in east Lenox and northeast Lee, and outdoor recreation in the gone-back-to-wild uplands of west Washington. The Housatonic River curves through and unifies its length.
- Native Americans migrated seasonally to the Berkshires from the Hudson Valley in New York 2,700 to 3,700 years ago, and continued here through the time of first contact with European settlers. The Mohicans lived by collecting wood for fuel; by harvesting bark, reeds, and saplings for houses; by taking plant materials for nets, canoes, weapons, and food containers; by using weeds, stones, and earth for dyes and medicines; by killing and processing a selection of wildlife; by gathering edibles; by clearing land; by raising and storing crops; by occupying living spaces; by making cooking and storage containers; and by the other activities of living. They occasionally moved to pristine locations, allowing their previous settings to return to a natural, but altered, state.
- Early colonial settlement began in the mid-eighteenth century. In Pittsfield, Col. Jacob Wendell and John Stoddard acquired Pontoosuc Plantation land, and settlement on the first 40 lots began about 1745. Lenox's first white settlers were Jonathan and Sarah Hinsdale, who uprooted from Hartford, Connecticut, in 1750. Lee was cobbled from parts of five land grants. Some 250 residents in 1777 petitioned for incorporation. Once called Hartwood, Washington incorporated in 1777.

- Water privileges along the Housatonic River in Lenox Dale spurred three large-scale nineteenth-century industries that produced iron, glass, and paper. Commercial businesses and light industries filled in along the riverfront in the 20th century.
- The Housatonic Railroad opened its line from Bridgeport, Connecticut, north through Great Barrington to West Stockbridge and connected with the Western (later Boston & Albany) at State Line in 1842. For an improved link with towns to the northeast, the Stockbridge & Pittsfield Railroad Company secured a charter and placed track through Stockbridge, Lee, and Lenox. The Housatonic Railroad leased the line. It first carried passengers in June 1850. It later became the New York, New Haven & Hartford Railroad. Penn Central acquired the tracks in 1969 but ended passenger service in 1971. A new Housatonic Railroad took over freight service in 1991 from Guilford Transportation. After the railroad abandoned Lenox Station, the building became an auto repair shop and warehouse until it was donated in 1986 to Berkshire Scenic Railway, which maintains a museum and runs occasional excursion trains. The building is on the National Register of Historic Places. Berkshire Street Railway served the length of the county. Streetcar tracks followed Holmes Road to Chapman Corner, went through New Lenox, and braided the railroad and river into Lee. From Lenox Dale, a connecting short line went to the center of Lenox. The first car to roll over the tracks in August 1902 was No. 22. The last car ran on the railway in 1930.
- This stretch of Housatonic River has a long tradition of private and public preservation activities, beginning with the land acquisitions of the Whitney game preserve. Ex-Secretary of the Navy William Collins Whitney (1841-1904) wanted to create a game preserve and woodland retreat. He had discovered the mountain expanse one day while on a carriage ride with his wife, Flora Payne Whitney. By 1896, he had quietly acquired 42 farms. Kelton B. Miller, publisher of the *Berkshire Eagle* and ex-mayor of Pittsfield, and Cortland Field Bishop of Lenox undertook public subscription in 1915 to acquire the Whitney estate from Harry Payne Whitney. Pittsfield had already instituted eminent domain proceedings to secure some 3,000 acres for Farnham Reservoir. When the new transaction was complete, the document ran for 36 pages. October Mountain State Forest was born.
- One can't begin to catalog the newspaper and magazine articles that have been written about the Housatonic River, including this stretch. An unusual mix of artists has depicted the landscape here. They show the artistic eye that has viewed the landscape.
- This section of Housatonic River is unusual in its many literate observers over the years. Early geologists remarked on the waterway's many features. Men and women of letters paid tribute. Add to them recreationists who paddled it and you have a diverse body of literature. Writers include Lydia Howard Sigourney, Clark W. Bryan, Henry Parker Fellows, Chard Powers

Smith, and Morgan G. Bulkeley III. Bulkeley wrote a weekly “Our Berkshires” column on nature and history for the *Berkshire Eagle* from 1960 to 1973. In a trio of “River Reports” published in 1961, Bulkeley articulated the condition of the river as he found it from a canoe. He and a companion launched from the Holmes Road bridge. “We shoved off into the miasmal morning mists as though down the river Styx. The three headwaters of the Housatonic had picked up their complement of civilization; the water was a dirty gray-brown, slithering between slimy banks strewn with assorted rubbish.” Bulkeley revisited the river in 1978, after he had retired from regular column writing, and assessed the work of the Housatonic River Watershed Association, Berkshire Natural Resource Council, the Pittsfield River Committee, and others. “This old river rat who had his first ‘Housatonic baptism’ as a schoolboy just 50 years ago can only conclude that things are looking up.”

2.3.9 Special Use Areas

The ACEC Regulations list public recreational areas, significant scenic sites, and undeveloped or natural areas as Special Use Areas.

2.3.9.1 Public Recreational Areas

Public Recreational Areas within the nominated area, which are almost entirely comprised of Undeveloped or Natural Areas, cover approximately 6,800 acres, or over half (55%), of the nominated area. These areas include the 262-acre Mass Audubon Canoe Meadows Wildlife Sanctuary, the 818-acre Darey WMA, the adjacent 200-acre Post Farm managed by the Lenox Conservation Commission, several boat access sites, and approximately 5,520 acres of October Mountain State Forest (which covers 16,500 acres and is the largest state forest in Massachusetts), managed by DCR. These lands are shown on the Protected Open Space Map.

2.3.9.1.1 DFW George L. Darey Wildlife Management Area

The 818-acre Darey WMA is one of the most heavily utilized wildlife management areas in western Massachusetts for all types of passive recreation including hunting, fishing, trapping, hiking, canoeing/kayaking, bird watching, and wildlife viewing. Most portions of the Darey WMA border or contain various segments of the Housatonic River which flows through the WMA north to south. The relatively narrow, elongated area is comprised of several parcels of flat, floodplain habitat. There are a number of oxbow ponds and backwaters, including Woods Pond at the southern end of the Darey WMA. There are also segments of several tributary streams, including Yokun Brook.

The Darey WMA contains seasonally flooded wooded swamps, shrub swamps, deep open marshes, and shallow open marshes. There are also a number of abandoned fields which are being invaded to various degrees by woody shrubs. Wildlife include stocked trout, stocked pheasant, waterfowl, aquatic furbearers, woodcock, deer, and

numerous non-game species associated with the lowland habitat. (See also Habitat Resources, sub-section 2.3.1, for more information.)

A canoe and boat access ramp and parking area is accessible off New Lenox Road.

2.3.9.1.2 Mass Audubon Canoe Meadows Wildlife Sanctuary

The Mass Audubon Canoe Meadows Wildlife Sanctuary is dedicated to wildlife habitat conservation and public education. Trails in the Sanctuary are used extensively by the public for passive recreation and wildlife appreciation, and for group programs. The Sanctuary, established in 1975, is located in Pittsfield just one mile from the center of the city, and attracts a variety of birds such as bobolinks, ospreys, and great blue herons, at different times of the year. Three miles of trails wind through the Sanctuary's scenic woods, fields, and wetlands, and along the edge of the Housatonic River. Wildlife includes beavers, otters, and wild turkeys. The ecological characteristics of the Sanctuary are unusual in Massachusetts. The calcium-rich bedrock underlying the Housatonic Valley has given rise to especially fertile floodplain soils that support a uniquely high concentration of rare or uncommon species. The Sanctuary alone provides habitat for at least seven state-listed rare species, including the American Bittern (Endangered), a breeding population of Wood Turtle (Special Concern), Bristly Buttercup (Threatened), and White Adders-mouth (Endangered). Canoe Meadows also contains vernal pools, and the uncommon northern leopard frog occurs here. In addition to these rare and uncommon species, there are also significant archaeological resources located here. Public programs are offered at the Sanctuary through the Pleasant Valley Wildlife Sanctuary in Lenox, including canoe trips on the Housatonic River.

2.3.9.1.3 October Mountain State Forest

October Mountain State Forest is the largest state forest in Massachusetts at 16,500 acres. Approximately 5,520 acres are located within the proposed ACEC (or 45% of the total area of the proposed ACEC.) According to the DCR website, visitors can camp, hike, and enjoy the outdoors while they visit nearby Berkshires attractions. A total of 46 campsites are located within the nominated area, and offer a base to explore this vast forest. The name "October Mountain" is attributed to writer Herman Melville, whose view of these hills in the fall from his home in Pittsfield so impressed him. (See the drawing in Appendix B referenced below under Significant Scenic Sites, as well as the Historic and Archaeological Resources section below, for more information.) Trails are available for every level of experience, and include the famous Appalachian Trail (located outside of the nominated area). There are also designated trails for motorized All-Terrain Vehicles (ATVs), also referred to as Off-Road Vehicles (ORVs) or Off-Highway Vehicles (OHVs), one of six DCR state forests that permit this type of trail use. These ATV trails are located both within and outside of the nominated area. One of the most scenic trails leads through Schermerhorn Gorge, located within the nominated area, a striking natural feature which has intrigued generations of geologists. Countless varieties of wild plants and animals can be found throughout the varied terrain.

According to the *Ecological Characterization of the Housatonic River*, prepared in 2002 for General Electric, the state forest contains a diversity of natural communities, including rich mesic forests, northern hardwoods-hemlock-white pine forests, high-gradient streams, grasslands, woodland vernal pools, and deep emergent marshes that border open water. A number of rare and uncommon plant species were seen in mature stands of sugar maple, white ash, and basswood (a rich forest mesic community.) Woodland vernal pools here were found to be used extensively by wood frogs for breeding.

(See also the Habitat Resources section for more information about wildlife and Rare Species, the Agricultural Areas section above for more information about forest land, and the Historic and Archaeological Resources section.)

2.3.9.1.4 Post Farm

The Post Farm, managed by the Lenox Conservation Commission, was acquired by the town in the early 1980s. Just south of the Darey WMA, this 200-acre property is an important wildlife habitat area.

2.3.9.2 Significant Scenic Sites

Significant Scenic Sites are located throughout the nominated area. In particular:

- The views across the Housatonic River from the west side of the River, looking east, include the dramatic, forested slopes of October Mountain State Forest and adjacent forested lands, with cascading streams and brooks flowing into the River. This perspective is wonderfully illustrated by a black-and-white elevation drawing published in 1935 by the predecessor agency of DCR, showing virtually the length of the proposed ACEC area, looking east, as a hawk would see it. A copy of the drawing is included in Appendix B. This extraordinary view remains virtually unchanged since that time.
- The views of the River and adjacent lands from the River are equally breathtaking. For many decades, thousands of canoeists have taken advantage of these peaceful and scenic views as they paddle along this meandering stretch of the Housatonic.
- There are a host of scenic sites and views within and from October Mountain State Forest, most of them as yet not documented.

2.3.9.3 Undeveloped or Natural Areas

Undeveloped or Natural Areas, in addition to including the Public Recreation Areas described above, are found in many other parts of the nominated area. Most notably, they are found within the Pittsfield watershed lands, which include approximately 425 acres within the nominated area.

2.3.10 Summary of Resource Highlights and Significance

The concentration, significance, complexity, and diversity of the resources described above leave no doubt that the proposed area meets the ACEC threshold of regional or statewide significance. The nominated area includes all nine of the possible inland resource features listed in the ACEC Regulations. As separate resource features, and as a dynamic ecosystem, the Upper Housatonic River corridor is highly significant to both the Berkshires and the state.

2.3.10.1 Habitat Resources

The habitat and wildlife values reflected in the extraordinary number of rare species (31); Certified and Potential Vernal Pools (46); amount of Biomap Core Habitat (4,600 acres, or 37%, of the area, plus another 27% of Biomap Supporting Natural Landscape); and, amount of Living Waters Core Habitat and Critical Supporting Watershed (3,600 acres, or 29%) are more than enough to meet any criteria for regional or statewide significance. The listed species include seven Endangered, 13 Threatened, and 11 Special Concern pursuant to the Massachusetts Endangered Species Act (MESA). There are three, or portions of three, separate Biomap Core Habitats within the nominated area. These three Biomap Core Habitats were delineated for six exemplary communities, 22 rare plants, two rare butterflies, one rare damselfly, three rare birds, one rare turtle, and four rare salamanders. The nominated area includes two NHESP-documented natural communities that are uncommon community types across Massachusetts, an Acidic Graminoid Fen and a Level Bog. Further, the nominated area is a regionally significant bird habitat and migratory corridor, and has been designated an Important Bird Area (IBA) by Mass Audubon.

2.3.10.2 Fishery Habitat

Fishery Habitat includes at least 21.5 river miles of Cold Water Fisheries. DFW sampling records show that Mill Brook, Ashley Brook, Sackett Brook, Washington Mountain Brook, Yokun Brook, Roaring Brook, and the outflow stream of Felton Pond support reproducing populations of brook and/or brown trout. There are approximately thirty fish species collected or suspected present in this section of the Housatonic River.

2.3.10.3 Inland Surface Waters

Surface Waters include approximately 12.9 miles of the Housatonic River, and portions of at least eight named tributary brooks and creeks, all highly important to the water quality, wildlife habitat, and overall resource quality of the nominated area. The area also includes several ponds, lakes, and reservoirs.

2.3.10.4 Inland Wetlands

Wetlands cover approximately 1,445 acres, or 12%, of the total proposed area.

2.3.10.5 Water Supply Areas

Water supply features include Farnham Reservoir, part of the Pittsfield water supply system, and approximately 425 acres of protected watershed lands within the nominated area.

2.3.10.6 Natural Hazard Areas

Natural hazard areas – areas defined by 100-year flood zones or steep slope grades averaging 25% to 30% – cover approximately 56% of the nominated area, indicating the overall environmental sensitivity of the nominated area.

2.3.10.7 Agricultural Areas

Lands of agricultural productivity and forestry cover approximately 9,360 acres, or 76%, of the nominated area. The western slopes of October Mountain State Forest include 1,120 acres of designated Forest Reserves. 1830s Forest, considered a valuable forest and habitat resource, covers approximately 3,450 acres, or 28%, of the nominated area. The amount of forest lands, Forest Reserves, and 1830s Forest clearly indicates the importance of these areas as part of the larger Upper Housatonic River corridor and ecosystem.

2.3.10.8 Historic and Archaeological Resources

There is a wealth of documentation of the historic and archaeological resources for the Upper Housatonic River corridor, as well as for the greater Housatonic River valley. The nominated area is part of the Upper Housatonic Valley National Heritage Area. Historic and archaeological resources have been documented in a *Cultural Resources Assessment for the Housatonic River*, prepared for General Electric in April 2008. The old Lenox Train Station is listed on the State and National Registers of Historic Places. There are historic and archaeological sites located within October Mountain State Forest. *A History of the Upper Housatonic River Corridor* by local historian Bernard A. Drew was prepared for this nomination.

2.3.10.9 Special Use Areas

2.3.10.9.1 Public Recreational Areas

Public recreation areas within the nominated area cover approximately 6,800 acres, or over half (55%), of the nominated area. These areas include the 262-acre Mass Audubon Canoe Meadows Wildlife Sanctuary; the 818-acre Darey WMA; the 200-acre Post Farm managed by the Lenox Conservation Commission; several boat access sites; and, approximately 5,520 acres of October Mountain State Forest. The Darey WMA is one of the most heavily utilized wildlife management areas in western Massachusetts for all types of passive recreation including hunting, fishing, trapping, hiking, canoeing/kayaking, bird-watching, and wildlife viewing. Canoe Meadows contains outstanding wildlife habitat resources, and is dedicated to wildlife

habitat conservation and public education. Trails in the Sanctuary are used extensively by the public for passive recreation, wildlife appreciation, and group programs. October Mountain State Forest is the largest state forest in Massachusetts at 16,500 acres. Approximately 5,520 acres of the Forest are located within the proposed ACEC (or 45% of the total area of the proposed ACEC.)

2.3.10.9.2 Significant Scenic Sites

Significant Scenic Sites are located throughout the nominated area, ranging from the River corridor to the upper reaches of October Mountain State Forest.

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3. Proposed Upper Housatonic River ACEC Boundary

3.1 General Proposed Boundary Description

3.1.1 Primary Resource Focus of the Upper Housatonic ACEC Nomination

The primary focus of the nominated area is the 12.9-mile corridor of the Upper Housatonic River from south Pittsfield to north Lee, and portions of the critical supporting watersheds that drain into the River from the east and west. This stretch of the Housatonic is comprised of a complex and rich ecosystem that includes the River itself, adjacent wetlands and floodplains, several tributary streams, abundant wildlife, concentrations of rare species, and the steep, forested, western slopes of October Mountain State Forest. The River and its adjacent uplands also provide an array of dramatic scenic vistas, and a wide range of public educational and recreational activities on protected lands, and include important historic and archaeological resources.

3.1.2 ACEC Program Guidelines for Proposing an ACEC Boundary

The draft proposed boundary addresses the guidelines set forth by the ACEC Program, and is intended to be as conservative as possible. The guidelines state that the proposed boundary should include the minimum area necessary to protect and preserve the critical resources of the proposed ACEC, and that, using markers such as roads or other rights-of-way, it should be easily recognized by the general public and local and state regulatory agencies working in the area. The proposed boundary for the Upper Housatonic follows roads, other rights-of-way, municipal boundaries, and natural resource features that have been used in previous ACEC designations, such as the 200-foot Riverfront Area adjacent to perennial rivers and streams, and the 100-foot wetlands Buffer Zone pursuant to the Wetlands Protection Act Regulations (310 CMR 10.00).

3.1.3 General Extent of Proposed Boundary

The proposed boundary is shown on the Proposed ACEC Boundary Map in Appendix A. As required by the ACEC Regulations, the boundary is shown on a United States Geological Survey (USGS) 1:25,000-scale topographical quadrangle map, last revised 1987 and 1988.

The northern extent of the proposed boundary of the Upper Housatonic River includes the confluence of the East and West Branches of the Housatonic River in Pittsfield. The southern extent includes the Golden Hill Road bridge over the Housatonic River in Lee. The westerly boundary generally follows roadways that run in a north-south direction parallel to the Housatonic in Pittsfield, Lenox, and Lee,

and includes gently rolling uplands that drain into the River. The easterly boundary generally includes and follows critical tributary streams and sub-watersheds that drain into the River, located mostly in the steep western slopes of October Mountain State Forest, in Lee, Washington, and Pittsfield. The proposed boundary covers approximately 12,280 acres in portions of four communities: Lee, Lenox, Pittsfield, and Washington.

The respective acreage of nominated area within each community is:

- Lee - 1,610 acres
- Lenox - 3,545 acres
- Pittsfield - 3,155 acres
- Washington – 3,960 acres.

3.2 Detailed Proposed Boundary Description

3.2.1 Proposed Boundary Description Notes

Consistent with ACEC Program guidelines, the proposed boundary described below extends to and includes the entire width of the rights-of-way of public and private streets, roads, highways, and other rights-of-way such as railroads and utility easements. Where the proposed boundary follows a wetland resource area (as defined in the Massachusetts Wetlands Protection Act Regulations, 310 CMR 10.00), the boundary is defined by a line following the outer edge of the Buffer Zone (as defined in 310 CMR 10.04, that area of land extending 100 feet horizontally from the boundary of any area specified in 310 CMR 10.02(1)(a), any bank, freshwater wetland, marsh or swamp bordering on any creek, river, stream, pond, or lake). Where the proposed boundary follows a perennial stream (as defined in the Massachusetts Wetlands Protection Act Regulations, 310 CMR 10.00), the boundary is defined by a line following the outer boundary of the Riverfront Area (as defined in 310 CMR 10.58(2)(a) and 10.58(2)(a)3., the area of land between a river's mean annual high-water line measured horizontally outward from the river (perennial stream) and a parallel line located 200 feet away.)

In addition to the USGS topographical map referenced above, the boundary description also references the current Department of Conservation and Recreation (DCR) October Mountain State Forest (October Mountain) Trail Map, and the Town of Washington Assessors Maps C, D, and F.

3.2.2 Description of Proposed Boundary

Beginning in the northwest corner of the proposed ACEC boundary in the City of Pittsfield, at the intersection of Crofut Street and South Street (Route 7), the boundary follows South Street in a southerly direction, crossing the bridge over the West Branch of the Housatonic River, to the intersection of South Street and the Housatonic Railroad Company railroad right-of-way; thence southeasterly along the railroad right-of-way to the intersection of the railroad right-of-way and the 100-foot

wetlands Buffer Zone located to the south and west of the railroad right-of-way; thence southerly, easterly, and westerly along the outer edge of the 100-foot wetlands Buffer Zone that includes Morewood Lake and all adjacent wetlands to the intersection of the 100-foot wetlands Buffer Zone and the railroad right-of-way (the boundary does not include those portions of three tributary streams that extend beyond the edge of the bordering vegetated wetlands shown on the current Massachusetts Department of Environmental Protection (DEP) 1:5000 scale wetlands maps); thence southerly along the railroad right-of-way to the intersection of the railroad right-of-way and Holmes Road; thence southerly along Holmes Road to the intersection of Holmes Road and Chapman Street;

Thence southerly along Chapman Street into the Town of Lenox, where Chapman Street becomes East Street; thence southerly along East Street to the intersection of East Street and Walker Street; thence southeasterly along Walker Street to the intersection of Walker Street and Lawton Street; thence westerly along Lawton Street to the intersection of Lawton Street and Catherine Street; thence southerly along Catherine Street to where Catherine Street becomes Golden Hill Street;

Thence southerly along Golden Hill Street into the Town of Lee, where Golden Hill Street becomes Lenoxdale Back Road; thence southerly along Lenoxdale Back Road to the intersection of Lenoxdale Back Road and Golden Hill Road; thence easterly along Golden Hill Road, crossing the bridge over Housatonic River, to the intersection of Golden Hill Road and the Housatonic Railroad Company railroad right-of-way; thence southerly along the main railroad right-of-way to a secondary railroad right-of-way; thence veering to the south along the secondary railroad right-of-way (the main railroad right-of-way continues southwest along the Housatonic River) in the vicinity of Columbia Street and Old Columbia Street to the intersection of the secondary railroad right-of-way and Columbia Street; thence a very short distance northerly along Columbia Street to the intersection of Columbia Street and Old Columbia Street; then easterly along Old Columbia Street to the intersection of Old Columbia Street and Greylock Street; thence northerly along Greylock Street, which becomes Bradley Street; thence easterly and northerly along Bradley Street to Woodland Road; thence northerly along Woodland Road to the intersection of Woodland Road and the 200-foot Riverfront Area on the south side of Washington Mountain Brook;

Thence northeasterly along the 200-foot Riverfront Area into the Department of Conservation and Recreation (DCR) October Mountain State Forest and then into the Town of Washington, continuing to the intersection of the 200-foot Riverfront Area of Washington Mountain Brook and the 200-foot Riverfront Area on the east side of the tributary stream that leads to Washington Mountain Marsh Swamp (a.k.a. Washington Mountain Lake); thence northerly along the tributary stream, continuing along the 100-foot wetlands Buffer Zone of the eastern edge of a small pond, and continuing northerly and northeasterly along the 200-foot Riverfront Area of the tributary stream to the intersection of the stream and a large berm originally constructed for a dam; thence easterly along the southern edge of the berm, which leads directly to a gated DCR park roadway, as shown on the current DCR October

Mountain State Forest (October Mountain) Trail Map; thence southerly and westerly along this park roadway to the intersection of this DCR park roadway and West Branch Road; thence northeasterly along West Branch Road to the intersection of West Branch Road and Lenox-Whitney Place Road; thence northwesterly along Lenox-Whitney Place Road, which becomes Whitney Place Road, as shown on the DCR October Mountain State Forest (October Mountain) Trail Map and the Town of Washington Assessors Maps C and D; thence along Whitney Place Road to the intersection of Whitney Place Road and the Washington-Pittsfield municipal boundary line, as shown on the DCR October Mountain State Forest (October Mountain) Trail Map and the Town of Washington Assessors Maps C and F; thence easterly and northerly along the Washington-Pittsfield municipal boundary line to the Pittsfield-Dalton municipal boundary line; thence northerly along the Pittsfield-Dalton municipal boundary line, crossing Ashley Brook, to the intersection of the municipal boundary line and the north side of the 200-foot Riverfront Area of Ashley Brook;

Thence westerly and northerly along the boundary of the 200-foot Riverfront Area of Ashley Brook into the City of Pittsfield, crossing Sackett Brook in a straight line, to the intersection of this straight line and the north side of the 200-foot Riverfront Area of Sackett Brook; thence westerly along the 200-foot Riverfront Area to the intersection of the 200-foot Riverfront Area and East New Lenox Road; thence northerly along East New Lenox Road to the intersection of East New Lenox Road and Williams Street; thence westerly along Williams Street to the intersection of Williams Street and Gravesleigh Terrace; thence southerly along Gravesleigh Terrace to the intersection of Gravesleigh Terrace and Cooper Parkway; thence westerly along Cooper Parkway, across Holmes Road, where Cooper Parkway becomes Marshall Avenue, to the intersection of Marshall Avenue and Pomeroy Street; northwesterly along Pomeroy Street to the intersection of Pomeroy Street and Crofut Street; thence westerly along Crofut Street to the intersection of Crofut Street and South Street/Route 7.

3.3 Rationale for Proposed Boundary

The ACEC Program guidelines require a description of critical resources and ecological relationships relative to the proposed ACEC boundary. Please see also the above Description of Resources, sub-section 3.1.1.

[Please see sub-section 3.3.4 for Notes on Terminology.]

3.3.1 Northern and Western Boundary

Beginning just north of the confluence of the East and West Branches of the Housatonic River in Pittsfield, the proposed boundary includes the confluence of the East and West Branches of the Housatonic River, Core Habitat and Supporting Natural Landscape, Living Waters Core Habitat and Critical Supporting Watersheds, Estimated Habitats of Rare Wildlife, and Priority Habitats of Rare Species (Rare Species Habitat), portions of tributary streams flowing east to the Housatonic River,

wetlands, and 100-year floodplains located along the River corridor. This area of the proposed ACEC also includes portions of the Darey WMA. To provide as conservative a boundary as possible, the boundary follows a railroad corridor, includes important Rare Species Priority Habitat (Morewood Lake and adjacent wetlands) to the south of the railroad corridor, then follows public roadways to the east of heavily trafficked and commercially developed Route 7 to Golden Hill Road in Lee.

The proposed boundary also includes Woods Pond, portions of additional tributary streams, additional portions of the Darey WMA, 200 acres of adjacent conservation land owned by the Town of Lenox (Post Farm), wetlands and floodplains, and additional areas of Rare Species Habitat, Core Habitat, and Living Waters Critical Supporting Watershed. The entire stretch of the Housatonic River corridor within the proposed boundary is classified as a Cold Water Fishery and as either Living Waters Core Habitat or Critical Supporting Watershed. Another stretch of the River below Lenox Dale includes Rare Species Habitat.

3.3.2 Southern and Eastern Boundary

From the Golden Hill Road crossing of the River, the proposed boundary includes a small wetland, 100-year floodplain, and Priority Habitat area located to the east of the River and south of Golden Hill Road. It includes a portion of 100-year floodplain as it extends northerly and easterly to Washington Mountain Brook. From here, to include several important resource areas of Rare Species Habitat, Core Habitat, Supporting Natural Landscape, Critical Supporting Watershed, several Cold Water Fishery tributary streams, portions of the Darey WMA, the steep, forested western slopes of October Mountain State Forest, and the Mass Audubon Canoe Meadows Wildlife Sanctuary, the proposed boundary follows a combination of natural features and roads/rights-of ways in an attempt to approximate the sub-watersheds of critical tributary streams that flow westerly to the River. The boundary follows the Riverfront Area of Washington Mountain Brook in a northeasterly direction to the Washington Mountain Marsh, then northerly along roads, rights-of-ways and the Washington-Pittsfield municipal boundary line to Ashley Brook and Sackett Brook. In parallel approach to the boundary proposed for the southeast section of the nominated area (Washington Mountain Brook, a Cold Water Fishery), the boundary in this northeast section follows the Riverfront Areas of Ashley Brook and Sackett Brook, both classified as Cold Water Fisheries, in a northwesterly direction until Sackett Brook intersects a public roadway, East New Lenox Road in Pittsfield. The proposed boundary then follows public roadways in Pittsfield to encompass the confluence of the East and West Branches of the Housatonic. As stated above, this portion of the nominated area east of the Housatonic includes important resource areas of Rare Species Habitat, Core Habitat, Supporting Natural Landscape, Critical Supporting Watershed, several Cold Water Fishery tributary streams, portions of the Darey WMA, the steep, forested, western slopes of October Mountain State Forest, and the Mass Audubon Canoe Meadows Wildlife Sanctuary.

3.3.3 General Notes on Proposed ACEC Boundary

Scenic vistas and landscapes are found on both sides of the River corridor, in addition to 46 Certified and Potential Vernal Pools, and historic and archaeological resources dating back several centuries.

Because the primary focus of the nomination is the Upper Housatonic River corridor, associated wildlife habitat and recreational areas, important tributary streams, and the rich ecological relationship of the River corridor to the western slopes of October Mountain State Forest, the important public drinking water supply watersheds located in the more easterly portions of the State Forest are not included within the proposed boundary, except for Farnham Reservoir (which is included as part of the important Mill Brook and Roaring Brook sub-watersheds as the boundary follows portions of public roads through October Mountain State Forest, Lenox-Whitney Place Road, and Whitney Place Road).

3.3.4 Notes on Terminology

3.3.4.1 Living Waters Core Habitat, and Critical Supporting Watersheds

These are designations attributed by NHESP for water bodies that contain rare species and exemplary habitats, and upland and upstream areas that have the greatest potential to influence the species living in Core Habitats, respectively (Living Waters, 2003).

3.3.4.2 Biomap Core Habitat, and Supporting Natural Landscapes

These are designations attributed by NHESP for the most viable statewide habitats for rare plants and animals, and natural communities (Biomap Project, 2001).

3.3.4.3 Estimated Habitats of Rare Wildlife, and Priority Habitats of Rare Species (Rare Species Habitat)

These are designations attributed by NHESP to identify State-listed rare-species habitats pursuant to the Massachusetts Endangered Species Act and the Wetlands Protection Act.

3.3.4.4 Cold Water Fisheries

This is the designation attributed by DFW for rivers and streams with confirmed populations of cold-water fish species.

4. Criteria for Designation of the Upper Housatonic River as an ACEC

The ACEC Regulations describe nine factors that the Secretary of EOEEA must consider in designating an area as an ACEC. These factors need not be weighed equally, nor must all of these factors be present for an area to be designated. While the more factors an area contains, the more likely its designation, the strong presence of even a single factor may be sufficient for designation.

4.1 Factors Supporting Designation

The following three factors listed in the ACEC Regulations can be grouped together in terms of the resources described in this nomination. Based upon the resources described, all three factors are strongly present regarding the proposed ACEC, and strongly support ACEC designation. These three factors alone are sufficient for designation:

- Quality of the Natural Characteristics – The area possesses outstanding natural characteristics
- Productivity – The area is rich in biological richness and diversity
- Uniqueness of Area – The area is unique or unusual from a regional, state, or national perspective.

Excerpts from the Summary of Resource Highlights and Significance (sub-section 2.3.10) are included below to address these three factors supporting ACEC designation. Also, please see Resource Features (sub-section 2.3), and several related Appendices.

The concentration, significance, complexity, and diversity of the resources described in this nomination leave no doubt that the proposed area meets the ACEC threshold of regional or statewide significance. The nominated area includes all nine of the possible inland resource features listed in the ACEC Regulations, in an ecosystem with regional or statewide significance. As separate resource features, and as a dynamic ecosystem, the Upper Housatonic River corridor is highly significant to both the Berkshires and the state.

4.1.1 Habitat Resources

The habitat and wildlife values reflected in the extraordinary number of rare species (31); Certified and Potential Vernal Pools (46); amount of Biomap Core Habitat (4,600 acres, or 37%, of the area, plus another 27% of Biomap Supporting Natural Landscape); and, amount of Living Waters Core Habitat and Critical Supporting

Watershed (3,600 acres, or 29%) are more than enough to meet any criteria for regional or statewide significance.

The listed species include seven Endangered, 13 Threatened, and 11 Special Concern species pursuant to the Massachusetts Endangered Species Act (MESA).

There are three, or portions of three, separate Biomap Core Habitats within the nominated area. These three Biomap Core Habitats were delineated for six exemplary communities, 22 rare plants, two rare butterflies, one rare damselfly, three rare birds, one rare turtle, and four rare salamanders.

The nominated area includes two natural communities documented by the Massachusetts Division of Fisheries and Wildlife (DFW) Natural Heritage & Endangered Species Program (NHESP) that are uncommon community types across Massachusetts, an Acidic Graminoid Fen and a Level Bog.

Further, the nominated area is a regionally significant bird habitat and migratory corridor, and has been designated an Important Bird Area by Mass Audubon.

Finally, NHESP is currently undertaking a two-year, \$556,950 survey to identify previously unknown rare-species locations, and sites for land acquisition and rare-species restoration, further underscoring the importance of this area, and the likelihood that additional habitat and wildlife data will be produced regarding this area.

4.1.2 Fishery Habitat

Fishery Habitat includes at least 21.5 river miles of Cold Water Fisheries. DFW sampling records show that Mill Brook, Ashley Brook, Sackett Brook, Washington Mountain Brook, Yokun Brook, Roaring Brook, and the outflow stream of Felton Pond support reproducing populations of brook and/or brown trout. There are approximately thirty fish species collected or suspected present in this section of the Housatonic River.

4.1.3 Inland Surface Waters

Surface Waters include approximately 12.9 miles of the Housatonic River, and portions of at least eight named tributary brooks and creeks, all highly important to the water quality, wildlife habitat, and overall resource quality of the nominated area. The area also includes several ponds, lakes, and reservoirs.

4.1.4 Inland Wetlands

Wetlands cover approximately 1,445 acres, or 12%, of the total proposed area.

4.1.5 Water Supply Areas

Water supply features include Farnham Reservoir, part of the Pittsfield water supply system, and approximately 425 acres of protected watershed lands within the nominated area.

4.1.6 Natural Hazard Areas

Natural hazard areas – areas defined by 100-year flood zones, or steep slope grades averaging 25% to 30% – include approximately 56% of the nominated area, indicating the overall environmental sensitivity of the nominated area.

4.1.7 Agricultural Areas

Lands of agricultural productivity and forestry cover approximately 9,360 acres, or 76%, of the nominated area. The western slopes of October Mountain State Forest include 1,120 acres of designated Forest Reserves, as well as approximately 3,450 acres (28% of the nominated area) of 1830s Forest. The amount of forest lands, Forest Reserves, and 1830s Forest clearly indicates the importance of these areas as part of the larger Upper Housatonic River corridor and ecosystem.

4.1.8 Historic and Archaeological Resources

There is a wealth of documentation of the historic and archaeological resources for the Upper Housatonic River corridor, as well as for the greater Housatonic River valley. The nominated area is part of the Upper Housatonic Valley National Heritage Area. Historic and archaeological resources have been documented in a *Cultural Resources Assessment for the Housatonic River* prepared for General Electric in April 2008. The old Lenox Train Station is listed on the State and National Registers of Historic Places. There are historic and archaeological sites located within October Mountain State Forest. *A History of the Upper Housatonic River Corridor* by local historian Bernard A. Drew was prepared for this nomination.

4.1.9 Special Use Areas

4.1.9.1 Public Recreational Areas

Public recreational areas within the nominated area cover approximately 6,800 acres, or over half (55%), of the nominated area. These areas include the 262-acre Mass Audubon Canoe Meadows Wildlife Sanctuary; the 818-acre Darey WMA; the 200-acre Post Farm managed by the Lenox Conservation Commission; several boat access sites; and, approximately 5,520 acres of October Mountain State Forest.

The Darey WMA is one of the most heavily utilized wildlife management areas in western Massachusetts for all types of passive recreation including hunting, fishing, trapping, hiking, canoeing/kayaking, bird-watching, and wildlife viewing.

Canoe Meadows contains outstanding wildlife habitat resources, and is dedicated to wildlife habitat conservation, and public education. Trails in the Sanctuary are used extensively by the public for passive recreation, wildlife appreciation, and group programs. October Mountain State Forest is the largest state forest in Massachusetts at 16,500 acres. Approximately 5,520 acres of the Forest are located within the proposed ACEC (or 45% of the total area of the proposed ACEC.)

4.1.9.2 Significant Scenic Sites

Significant Scenic Sites are located throughout the nominated area.

4.2 Factors Relating to Potential or Actual Threats

The following four factors listed in the ACEC Regulations can be grouped together for this nomination:

- Threat to the Public Health Through Inappropriate Use
- Imminence of Threat to the Resource
- Irreversibility of Impact
- Magnitude of Impact.

4.2.1 Background of GE PCB Contamination of the Housatonic River

General Electric (GE) began its operations in Pittsfield in 1903. By the 1950s, GE's 254-acre plant in Pittsfield, located next to the Housatonic River, was building the largest transformers in the world, using the man-made toxic chemical polychlorinated biphenyl (PCB) as an insulating fluid in its electrical transformers. (The transformer operation was closed down in 1986.) The GE plant has historically been the major handler of PCBs in western Massachusetts, and is the only known source of PCBs found in the Housatonic River sediments and floodplain soils in Massachusetts. According to GE's reports, from 1932 through 1977, releases of PCBs reached the waste and storm-water systems associated with the facility, and were subsequently conveyed to the East Branch of the Housatonic River and to Silver Lake. Further, during the 1940s, efforts to straighten the Pittsfield reach of the Housatonic River by the City of Pittsfield and the U.S. Army Corps of Engineers resulted in 11 former oxbows being isolated from the river channel. The oxbows were filled with material that was later discovered to contain PCBs and other hazardous substances.

The GE Pittsfield/Housatonic River site has been subject to regulatory investigations dating back to the early 1980s, and a series of public health advisories has been issued regarding fish and wildlife as a result of contamination in the river sediments. The United States Environmental Protection Agency (EPA) proposed the Site to the Superfund National Priorities List in September 1997. Federal and state government

agencies and GE entered into negotiations late in 1997, in an attempt to reach a comprehensive settlement to include remediation, redevelopment, and restoration components. This agreement, which also included the City of Pittsfield, was translated into a Consent Decree approved by the federal district court on October 27, 2000. The agreement provides for, among other things, the clean-up of the GE plant facility, clean-up, and restoration of the former oxbows, environmental restoration of the Housatonic River and floodplain, compensation for natural resource damages, and government recovery of past and future response costs.

The EPA is primarily responsible for working with GE to implement the Consent Decree. To date, GE has worked to remove PCBs from the first half-mile adjacent to the former GE plant in Pittsfield, and the next mile and a half downstream from the plant. Under the terms of the Consent Decree, GE is charged with developing a Corrective Measures Study (CMS) to address contamination in the Rest of the River (ROR), the section of the River from the confluence of the East and West Branches of the Housatonic in Pittsfield to Long Island Sound. The GE CMS, which primarily focuses on the next 10-mile stretch of the River to North Lee, was published and made available for public comment in March 2008, and elicited an outpouring of negative public comment on GE's proposed alternatives to cleaning up the River. As stated below, the EPA website lists over 110 public comments that were submitted regarding the GE CMS, from over 150 citizens, public officials and agencies, and non-governmental groups. The intensive recreational use of the public lands in this area also reflects the importance of the area.

4.2.2 Summary of Current Threat

High levels of PCBs currently contaminate the Upper Housatonic River, and GE is in the process of working with the EPA and other stakeholders to develop a proposed clean-up plan for the Rest of the River. There is concern that widespread alteration of the River corridor could result from the clean-up – including highly adverse impacts to wildlife habitat, and to recreational, scenic, and economic values. There is strong local interest and support for ensuring the highest standard of River remediation and restoration, as evidenced by the public comments submitted to EPA in May 2008.

The clean-up poses a large scale and imminent potential threat to the Upper Housatonic River. This nomination seeks to help ensure that the clean-up is completed in a manner that will preserve the high-quality resources, and social and habitat values of the River that are described in the nomination. All four of these factors – threat through inappropriate use, imminence of threat to the area, irreversibility of impact, and magnitude of impact – strongly support ACEC designation.

4.3 Economic Benefits

The area has intrinsic values that are important to a region's economic stability, including recreation and tourism.

Recreational areas providing economic benefits include the Darey WMA, the Mass Audubon Canoe River Wildlife Sanctuary, the Post Farm, and October Mountain State Forest. These areas cover approximately 6,800 acres, or over half (55%), of the nominated area, and provide recreational opportunities to thousands of residents and visitors each year. The nominated area is part of the Upper Housatonic Valley National Heritage Area, underscoring its value and significance to tourism. Finally, farming and forestry activities described above contribute to the region's economy. The nominated area provides significant and multiple economic benefits to the region.

4.4 Supporting Factors

Finally, there are several Supporting Factors listed in the ACEC Regulations as criteria for considering designation. These include strong public consensus on the intrinsic value of the area; public awareness of the importance of the area; legislative identification of the value of the resources; the lack of coordinated local control because the area is contained within more than one municipality; ownership of some or all of the resource by the local, state or federal government; or, the existence of supporting management programs in the area. All of these factors support ACEC designation:

4.4.1 Strong public consensus on the intrinsic value of the area, and public awareness of the importance of the area

The outpouring of public comment and concern regarding the recently proposed PCB clean-up and restoration of the Housatonic River reflects the public's strong awareness of the intrinsic value of the area. As listed on the EPA website, over 110 public comments were submitted regarding the March 2008 GE Corrective Measures Study, from over 150 citizens, public officials and agencies, and non-governmental groups. The intensive recreational use of the public lands in this area also reflects the importance of the area.

4.4.2 Legislative identification of the value of the resource

Congress has included this area as part of the Upper Housatonic Valley National Heritage Area.

4.4.3 Lack of coordinated local control because the area is contained within more than one municipality

The nominated area is located with four municipalities. Currently there is no inter-municipal coordination to provide resource protection or stewardship for the area.

4.4.4 Ownership of some or all of the resource by the local, state, or federal government

Public lands cover over half of the nominated area.

4.4.5 The existence of supplementing management programs in the area

Mass Audubon and DFW have longstanding programs of research, monitoring, management, and public education concerning their lands within the nominated area.

In conclusion, the Upper Housatonic River region clearly merits designation as an Area of Critical Environmental based upon all the supporting factors and criteria listed in the ACEC Regulations at 301 CMR 12.09.

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