#### DESIGNATION of the

#### NEPONSET RIVER ESTUARY

#### AREA OF CRITICAL ENVIRONMENTAL CONCERN

located in portions of the municipalities of

Boston, Milton, and Quincy

#### WITH SUPPORTING FINDINGS

Following an extensive formal review required by the regulations of the Executive Office of Environmental Affairs (301 CMR 12.00) including nomination, review, on-site visits, research, public information meetings, a public hearing and written comment period, and evaluation of all public comment and assembled data, I, the Secretary of Environmental Affairs, hereby designate the Neponset River Estuary, located in portions of the municipalities of Boston, Milton, and Quincy, as an Area of Critical Environmental Concern (ACEC). I take this action pursuant to the authority granted me under Massachusetts General Law Chapter 21A, Section 2(7).

I also hereby find that the wetland resource areas included in the Neponset River Estuary are significant to the prevention of pollution, flood control, the prevention of storm damage, the protection of fisheries, the protection of land containing shellfish, and the protection of wildlife habitat - all of which are public interests defined in the Wetlands Protection Act and regulations promulgated thereunder.

In addition, with regard to the Massachusetts Surface Water Quality Standards, 314 CMR 4.00, I recommend that the current Class SB water quality standards and antidegradation provisions continue to be applied to the waters of the Neponset River Estuary ACEC.

## <u>Introduction: Effective Date of Designation and Development of</u> <u>Neponset River Estuary ACEC Resource Management Plan</u>

Pursuant to the ACEC Regulations at 301 CMR 12.11(1), which authorize the Secretary to provide the effective date of designation, the effective date of this designation shall be December 1, 1995.

I am directing the agencies of the Executive Office of Environmental Affairs (EOEA) to collaborate with municipalities, environmental and community groups and organizations, local businesses and residents, and other interested parties to prepare a Resource Management Plan for the Neponset River Estuary ACEC. The resource management plan will address the preservation, restoration, enhancement, use and management of the resources of the Neponset River Estuary ACEC, and address the regulatory and boundary questions raised in the course of the public review of the nomination (see sections III. Boundary of the Neponset River Estuary ACEC and IV. Discussion of the Criteria for Designation below for additional description of these issues). The resource management plan, to the greatest extent possible, will guide the implementation of the Neponset River Estuary ACEC designation and coordinate the activities and interests of federal, state and local agencies and the public and private sectors.

The resource management plan should be completed by November 1, 1995. The plan should include recommendations for any proposed changes or modifications to this designation that may be needed. Because the ACEC Regulations at 301 CMR 12.13(2) state that an ACEC designation may be amended after one year, if there is a need to amend the designation before this one year period, I will entertain a waiver to the ACEC Regulations as provided for at 301 CMR 12.15.

In addition to directing EOEA agencies to participate in the development of a resource management plan, I hereby direct all EOEA agencies as of the date of this decision to take actions to preserve, restore and enhance the resources of this area, and to subject projects and activities in or impacting the area to the closest scrutiny to assure that they are carried out so as to minimize adverse effects on the resources and values of the ACEC. Furthermore, all EOEA agencies shall work to expedite all environmental restoration projects and other projects beneficial to public health, welfare and safety, such as landfill closures, hazardous waste site clean-ups, wetlands and fisheries habitat restoration, and public park and recreation planning and development.

As EOEA agencies are currently focusing and coordinating many actions and programs in the context of the Governor's Neponset River Watershed Initiative, those activities will further guide and support the directives described above and the purpose of this ACEC designation.

### I. Procedures Leading to ACEC Designation

### Background, Previous Neponset River ACEC Nominations

In May, 1991 a letter of nomination for a Neponset River Basin-wide ACEC signed by the Neponset River Watershed Association (NepRWA) and twelve Conservation Commissions was submitted to the Secretary. This nomination was a revised and updated version of an original nomination for the Neponset River Basin prepared in February, 1981. Following an initial review, the Neponset River Basin nomination was rejected for full review in July, 1991. This letter recommended that NepRWA and the Conservation Commissions consider potential separate nominations for the Fowl Meadow and the Neponset River Estuary. A nomination for the Fowl Meadow and Ponkapoag Bog ACEC then was submitted in January, 1992 by NepRWA and the eight Conservation Commissions of cities and towns affected by the potential designation. Following a full review of this nomination pursuant to the ACEC Regulations, the Fowl Meadow and Ponkapoag Bog ACEC was designated in August, 1992.

# Neponset River Estuary ACEC Nomination

A nomination for the Neponset River Estuary was submitted to me on September 30, 1994. I acknowledged receipt of the nomination in correspondence dated October 3, 1994, and accepted the nomination for full review in correspondence dated November 8, 1994. Copies of the acceptance letter and a summary of the nomination were sent to the Neponset River Watershed Association and the boards of selectmen, mayors and city councils, conservation commissions, and planning boards in Boston, Milton, and Quincy; state legislators representing the area; regional and state agencies; environmental organizations; and other interested parties. The November 8 correspondence included information regarding the scheduling of four public information meetings to be held in November and In addition, this correspondence distributed Draft December. Resource Management Goals and Objectives for public review and comments. These draft goals and objectives were based upon EOEA's initial review of the nomination and Draft Resource Management Goals prepared by the Neponset River Watershed Association (NepRWA). A copy of the NepRWA draft goals was also included with the November 8 mailing.

An initial series of public information meetings was held on November 29, 1994 at the Dorchester VFW Post in Dorchester; November 30, 1994 at the McKeon VFW Post in Dorchester; December 5, 1994 at the Milton High School in Milton; and December 8, 1994 in the City Council Chambers in Quincy. In EOEA correspondence dated December 22, 1994 public notice was sent to the above-mentioned parties describing two additional public information meetings for January 11 and January 19, 1995; a public hearing for January 25, 1995; and a ten-day written comment period following the hearing. Public notice of the meetings, hearing and comment period was also published in The Patriot Ledger on December 22, 1994, and in the December 23, 1994 issue of the Environmental Monitor. The December 22, 1994 correspondence also included an alternative method of describing the boundary of the nominated area, in response to questions raised in the review process and following discussions with NepRWA. In this correspondence I asked for comments from the nominators, state and municipal agencies, interested parties and the general public regarding this method of delineating a potential ACEC boundary, based more directly upon the resources of the nominated area. I also requested comments regarding draft resource management goals and objectives and commitments for participation in the development of a resource management plan if the area was designated an ACEC.

The last two public information meetings were held on January 11, 1995 at Cunningham Hall in Milton and January 19, 1995 at the Beachwood Community Life Center in North Quincy. A public hearing regarding the nomination was conducted on my behalf by Peter Webber, Commissioner of the Department of Environmental Management (DEM), on January 25, 1995 at the McKeon VFW Post in Dorchester. Twenty-four persons representing individual residents and a variety of groups and organizations presented oral testimony. A ten-day period for the submission of additional written comment followed the public hearing. In response to requests, the comment period was extended from February 6 to February 16, 1995. Notice of the extended comment period was published in <u>The Patriot Ledger</u>, <u>The Dorchester Reporter</u>, and the <u>Milton Record Transcript</u> and in numerous press articles. Throughout the public review process numerous newspaper articles and mailings from NepRWA provided additional information regarding the nomination and the review.

Written testimony was received from numerous individuals, state legislators, private organizations, and public agencies. Copies are on file at the offices of the DEM Division of Resource Conservation in Boston. Over seventy comments were received in the course of the public participation and review process. Additional information regarding these comments is described below in section IV. Discussion of the Criteria for Designation.

## II. Description of the Resources of the Neponset River Estuary ACEC

A summary and overview of the resources and their critical interrelationships are provided here. Information, testimony, comments and materials submitted for the review of the nomination, some of which are specifically referenced in this document, are on file with the Department of Environmental Management.

#### Resource Overview

The central resource features of the Neponset River Estuary ACEC are the Neponset River and portions of its tributaries, the estuary, salt marshes, floodplains, fishery habitat, and diverse wildlife habitat. The ACEC begins at the Lower Mills Dam in Milton and Dorchester, which separates the coastal estuary from the inland fresh water portion of the Neponset, and extends to the mouth of the river at Commercial Point in Boston and Squantum Point in Quincy. Highly significant historical and archaeological resources, recreational areas, and scenic and educational values within this area contribute to the overall significance of the ACEC to the people and communities of the region. Thus the area reflects eight out of eleven of the resource features listed at 301 CMR 12.06.

#### Surface Waters

As mentioned above, within the ACEC the Neponset River flows from the Lower Mills Dam to its mouth at Commercial Point and Squantum Point. This section of the Neponset River is approximately 4.2 miles in length. The overall length of the Neponset River is approximately 28 miles from its source in Foxborough to its mouth in Dorchester Bay. Portions of Gulliver Creek in Milton and Sagamore Creek in Quincy flow into the Neponset River within the ACEC.

## Estuarine Wetlands, Inland Wetlands and Floodplains

The predominant ecological and visual features of the Neponset River Estuary ACEC are the extensive salt marshes that are located along the Neponset River as it winds its way from the Lower Mill dam to Dorchester Bay. According to GIS data, salt marsh comprises approximately 320 acres within the ACEC, or 26 per cent of the total area of the ACEC. Large expanses of salt marsh are located below the Lower Mills Dam in Boston and Milton, along the south shore of the Neponset at the Milton and Quincy municipal boundary, and in Quincy north of the Conrail bridge to Squantum Point. Other smaller areas of salt marsh are found within the ACEC. Important inland wetlands are located at Squantum Point.

Overall, the combined acreage of open water at high tide, estuarine wetlands, and other wetland resource areas totals approximately 830 acres, or 66 per cent of the total area of the ACEC. In addition, floodplains overlay most of the ACEC, especially the wetlands. Floodplains cover approximately 1,005 acres or 80 per cent of the ACEC. This estuarine wetland system is a highly productive ecosystem, supporting important marine fisheries and diverse wildlife habitat. It is unique in its size and proximity to a highly urbanized area.

## Fishery Habitat

According to comments regarding the nomination provided by the Massachusetts Division of Marine Fisheries (DMF), dated January 23, 1995, the Neponset River supports valuable anadromous fish populations, including one of the largest smelt runs in Massachusetts Bay. This run supports a hook and line, recreational fishery in the fall and winter. In addition, blueback herring spawn in the Neponset River, and are valued for roe harvest and are an important forage species in the Bay. American shad have been observed by biologists below the Lower Mills Dam. DMF supports ACEC designation in the interest of conserving anadromous fish populations and the potential benefits of future restoration projects.

In regard to shellfish resources, DMF states that there are substantial soft-shell clam beds at the mouth of the Neponset River. A limited survey of Buckley's Bar was conducted in 1989 and found very high densities of soft-shell clams, with a potential yield of 68 clams per square foot. DMF estimates that the 50 acres of Buckley's Bar could produce approximately 12,500 bushels per year, with a current market value of \$1 million per year to local harvesters. However, recent water samples from this area found continued high levels of contamination, with DMF concluding that "open shellfish harvest is not likely in the near future for this area, although restricted classification (harvest by permitted master diggers with depuration) is a feasible goal, especially with plans underway to improve water quality in Boston Harbor and the Neponset River."

DMF comments regarding the ACEC nomination concentrated on anadromous fish and shellfish resources "because there are important habitat areas within the proposed ACEC and because of the magnitude of these resources relative to other locations in Massachusetts Bay." DMF adds that there are numerous fish species that enter the Neponset River estuary as seasonal migrants for feeding purposes, with striped bass, bluefish and winter flounder considered significant for commercial and recreational importance. It is important that water and forage quality be improved for these species, as well as sportfishing access.

#### Habitat Resources

Comments regarding the nomination provided by the Massachusetts Natural Heritage & Endangered Species Program (NHP), Division of Fisheries and Wildlife, dated February 1, 1995 focus on statelisted rare species and non-game wildlife in the Squantum Point area, in Quincy. According to NHP, this area "provides habitat for a tremendous diversity of bird species and is one of the most important wildlife habitats in the urbanized Boston area."

NHP goes on to state that, "For over 30 years, Squantum Point has been known as a feeding area, roosting area, and migratory stopover for over 200 species of birds. State-listed rare species known to utilize this area are the Short-eared Owl (<u>Asio flammeus</u>), Northern Harrier (<u>Circus cyaneus</u>), and Least Tern (<u>Sterna antillarum</u>).... other bird species that use this area, and are uncommon but not state-listed, include the Snowy Owl, Great Blue Heron and Osprey among many others."

In regard to the wildlife habitat of this area, NHP explains that, "One of the primary reasons that Squantum Point supports both an unusual abundance of birds and a high diversity of species is the variety of habitat types occurring within a relatively small area. This area includes mudflats, sandy beaches, saltmarshes, freshwater wetlands and shrubby upland." Another reason for the heavy use by birds is because so few suitable areas exist in the greater Boston area. NHP recommends including all of these habitats within the boundary of the ACEC, and to designate the area as an ACEC to help "protect an area that is unique because it is one of the few remaining natural ecosystems in our urban environment."

## Historical/Archaeological Resources

Layers of archaeological and historical resources are concentrated in the area of the Neponset River estuary. These resources are described and documented in the 1989 publication of the Metropolitan District Commission, A History and Guide to the <u>Restoration of Dorchester Shores.</u> The geographical location and ecological richness of the area has attracted human use and settlement for 10,000 years. As summarized in the MDC publication, "the area is well endowed with abundant natural resources, and during the 10,000 years that humans have occupied the Boston Basin, the Neponset River would have been utilized during different seasons, and at different levels of intensity throughout prehistory." At the time of the first European contact with the region, Lower Falls was the seat of the Neponset tribe of the Massachusetts Indians. At least nine archaeological sites have been recorded along the lower Neponset River.

The MDC publication further describes colonial settlement and evolving historical development and industrial use of the area. The Lower Mills and Neponset marshes area, Port Norfolk and Commercial Point are highlighted in the narrative. Visible reminders of the colonial and industrial periods remain, but much of this history, like the archaeological resources from native settlement patterns and uses, are not readily apparent without guides such as the MDC publication or longtime residents of the area. High formal recognition has been awarded to the Dorchester and Milton Lower Mills Industrial District, which has been on the State and National Registers of Historic Places. Continued education and interpretation of human history and its interaction with the natural resources of the area are an essential element of preserving and restoring the ecological integrity of this area.

## Special Use Areas

According to the ACEC regulations, "special use areas" are defined as "undeveloped natural areas, public recreational area, or significant scenic site(s)." The importance of this category of features to the nominated area is demonstrated by the number of scenic sites and views of the river and estuary available from a number of locations, the currently undeveloped and scenic nature of the salt marshes, and the large proportion of public lands for recreation that are located with the ACEC. Many of these features are linked to the Metropolitan District Commission's ownership of approximately 490 acres within the ACEC (39 per cent of the total acreage).

According to MDC comments regarding the nomination dated February 16, 1995, MDC owns approximately 270 acres known as the Neponset Marshes, and approximately 220 acres that include several other properties - Squantum Point Park in North Quincy, and Ventura Park Playground, Tenean Beach, Victory Road Park, Pope John Paul II Park (the Hallet Street/Neponset Drive-In Site), and the former Conrail right-of-way and Shaffer Paper Company site in Boston. MDC divides these properties into three categories: natural areas like the Neponset Marshes and portions of Squantum Point Park; developed sites such as Ventura Park Playground, Tenean Beach, and Victory Road Park; and undeveloped sites such as Pope John Paul II Park, portions of Squantum Point Park, the Shaffer site, and the former Conrail line, which need recreational access, development and enhancement and environmental reclamation and restoration.

MDC is committed to providing a "green connection" from Mattapan to Castle Island, which traverses the ACEC along the Boston side of the river and includes a bicycle and park corridor connection. To this end MDC has initiated a major master planning program for the Neponset estuary which includes all of the properties described above, located in Boston, Milton and Quincy. According to MDC most of these sites have complicated development and management issues associated with them. MDC stewardship of these areas is an essential element of achieving the goals of ACEC designation, and the MDC master plan is a key element of the larger Neponset River Estuary ACEC resource management plan to be prepared.

In addition to MDC lands, other public recreation and open space areas highly important to local residents and the region include The Trustees of Reservations' Governor Hutchinson's Field in Milton, the Milton Town Landing, and the President's Golf Course in Milton and Quincy.

# III. Boundary of the Neponset River Estuary ACEC

# Description of Boundary Review Process

The boundary as recommended in the nomination employed several different types of boundary delineation, such as roads, county lines, zoning district lines, property lines, natural resources, setback distances from natural resources, and straight line distances between two points. About ten different types of delineation were used, and the overall sequence of describing the proposed boundary used over thirty changes from one type of description to another.

Several questions were raised in the course of the initial review and the first round of public meetings regarding the proposed method of describing the boundary of the nominated area. In discussions between NepRWA and EOEA staff, it was agreed that alternative methods of delineating a boundary for the proposed ACEC were appropriate for public review. Both the nominators and EOEA staff recognized that by so doing, they were continuing to describe the same set of resources and the same ecosystem as had been proposed for protection in the nomination.

A method of delineating the boundary, based upon the Wetlands Protection Act Regulations (wetlands resource areas and a 100-foot buffer) plus adjacent public open space and historic districts, was distributed in EOEA correspondence dated December 22, 1994, and at the public information meetings and public hearing in January, 1995, on a geographic information systems (GIS) map. Differences between the nominated boundary and the alternate method of resource-based delineation are relatively few, reducing the total of 1540 acres nominated by fewer than 300 acres, according to GIS calculations. Commercial Point, primarily a gas tank facility, was originally included in its entirety, and is now only affected as to the 100-foot wetlands buffer. Open water between Commercial Point and the tidal flats at Buckley's Bar and the county line which extends northeasterly from Dorchester Bridge is not included in the current boundary. Extensive freshwater wetlands and a smaller saltwater wetland on Squantum Point are included in the resourcebased boundary. A tract of commercial, residential, and industrial land in North Quincy outside of the 100-foot wetlands buffer zone is not included within the resource-based boundary. Two other residential areas, and an industrial area between the Southeast Expressway and MDC's proposed rail trail in Boston that were included based on roadway delineation are not included now other than within the 100-foot wetlands buffer. In other words, some properties and portions of properties included in the original proposed boundary due to using roads, property lines and other means are eliminated in the final boundary, and additional resource areas are added.

The consistency and rationale of the resource-based boundary regarding the protection of resources themselves, and the lack of clear consensus concerning boundaries among the nominating parties, municipal boards, and other public comment leads me to choose the resource-based boundary described in detail below. The overriding rationale for this boundary delineation is that it is directly based on and includes the wetland resource areas of the Neponset Estuary, from the mouth of the estuary up to the Lower Mills Dam in Milton and Boston, which divides the coastal estuary from the inland fresh water portion of the Neponset River.

Several comments regarding the proposed boundary, and concerns and suggestions regarding the regulatory effect of ACEC designation on important public environmental restoration and improvement projects were submitted in the course of the public review. These comments ranged from suggestions to exclude certain commercial and residential properties to proposals for language that would expedite landfill closures, hazardous waste site cleanups, and other beneficial environmental restoration and public recreation projects. Many concerns regarding the clean-up, restoration and recreational development of MDC lands, which comprise approximately 500 acres of the ACEC, were expressed to me.

However, I have not included language in this designation document to exclude or exempt specific properties, activities or projects from the regulatory effects of ACEC designation. The intent of this designation - to preserve, restore and enhance the resources of the ACEC, including the provision of safe public access and recreation on public lands - should guide the actions and regulatory decisions of EOEA agencies. I expect that EOEA agencies, municipalities, community and environmental groups, and local businesses and residents will participate in the development of the Neponset River Estuary ACEC resource management plan over the next several months to address any unresolved issues regarding final boundary delineation and regulatory effects of ACEC designation prior to the effective date of this designation.

The final boundary is based on the wetland resource areas of the Neponset River marshes and estuary, as defined by the Wetlands Protection Act Regulations (Wetlands Regulations). The boundary generally follows the jurisdiction of the Wetlands Regulations, including the edge of the resource area and a 100-foot buffer. However, it does not include the floodplain of this area where the floodplain, in several locations, extends beyond the 100-foot buffer of these resource areas.

The boundary is approximated by that boundary shown on the GIS map produced by the Department of Environmental Management for the review of the Neponset River Estuary ACEC nomination. Actual delineation of the 100-foot buffer of the wetlands resource areas would be made during the course of a request for determination of applicability or notice of intent submitted by a project proponent to the Conservation Commissions of Boston, Milton, and Quincy, following the procedures specified by each Conservation Commission as provided in the Wetlands Protection Act, M.G.L. Ch.131, sec. 40, the Wetlands Protection Regulations, 310 CMR 10.00, and subject to their agreement. It is my intention that the Resource Management Planning process will also serve to identify a better approximation of the boundary on town assessor maps.

The official GIS map at 1:7500 scale and the supplemental maps listed below are on file at the offices of the DEM, Division of Resource Conservation. Reduced versions of the GIS map at a scale of 1:20,000 and copies of the supplemental maps are available upon request.

The GIS map is supplemented by the following maps:

- 1) City of Boston Planimetric Survey 14N-14E
- 2) City of Quincy Assessors Map 6143
- 3) Town of Milton map Roll 10A, Sheet 1
- 4) Town of Milton map Roll 7, Sheet 1
- 5) Dorchester/Milton Lower Mills National Register District map

The size of the Neponset River Estuary ACEC, according to GIS data, is approximately 1,260 acres. The respective acreage located in each municipality is as follows:

Boston	-	435	acres	
Milton	-	355	acres	
Quincy	-	470	acres	

## Final Boundary Description of the Neponset River Estuary ACEC

Beginning at the bulkhead terminus of the walkway at the end of Victory Road overlooking the estuary at Commercial Point in Dorchester (<u>Boston</u>), as shown on the City of Boston Planimetric Survey 14N-14E, the boundary follows a straight line due east to 100 feet below Mean Low Water (MLW, or the edge of the tidal flats) of the Neponset River Estuary (near the <u>Boston-Quincy</u> municipal boundary) as shown on the DEM GIS map of the Neponset River Estuary ACEC.

It then follows the 100-foot line below MLW in a northerly, northeasterly, southerly, and southeasterly direction to the intersection of the Metropolitan District Commission (MDC) property line on land just west of the Marina Bay complex in <u>Quincy</u>, also shown on the DEM GIS map of the Neponset River Estuary ACEC.

Then southerly and westerly along the MDC property line to the edge of the 100-foot wetlands buffer.

It then follows along the 100-foot wetlands buffer line southeasterly and westerly, and includes the freshwater wetland areas located within and south of MDC's Squantum Point Reservation.

Then along the 100-foot wetlands buffer southerly and easterly towards East Squantum Street, then southerly, westerly, southerly, and westerly, thus including the extensive coastal marsh at the beginning of Squantum Point.

Then along the 100-foot wetlands buffer southerly, easterly, westerly, and southerly, thus including the next coastal marsh area to the south along the Neponset River.

Then along the 100-foot wetlands buffer along the Neponset River southerly, and then along the 100-foot wetlands buffer easterly around Sagamore Creek to the intersection of the drainage right-of-way that joins Sagamore Creek to the salt marsh wetlands to the southeast.

Then along and including the drainage right-of-way to the salt marsh wetlands to the southeast, along the 100-foot wetlands buffer around the wetland, and then back northwesterly along the drainage easement to the 100-foot wetlands buffer of Sagamore Creek.

Then along the 100-foot wetlands buffer northwesterly, southwesterly and southeasterly to the intersection with the President's Golf Course property line in Quincy .

Then southerly and westerly along the President's Golf Course property line (as shown on City of Quincy Assessors Map 6143) across the <u>Quincy-Milton</u> municipal boundary, and southerly along the property line in Milton (as shown on Town of Milton map Roll 10A, Sheet 1) until the intersection with the 100-foot wetlands buffer, thus including the public open space of the golf course. Then along the 100-foot wetlands buffer in <u>Milton</u> westerly, to include the freshwater wetlands of the golf course, across Granite Ave., and southwesterly and northerly along the 100-foot wetlands buffer, across the Southeast Expressway, and southerly along the 100-foot wetlands buffer to the intersection with the MDC Neponset River Reservation property line, enclosing the saltwater wetlands that drain into Gulliver's Creek.

[Explanatory note: By following the 100-foot wetlands buffer a "pocket" of upland is not included within the ACEC boundary in the approximate area of the intersection of Granite Avenue and the Southeast Expressway.]

Then southerly along either the MDC property line or the 100foot wetlands buffer, whichever is further from the saltmarsh, then northwesterly and westerly along the 100-foot wetlands buffer until the intersection with the Trustees of Reservations (TTOR) Governor Hutchinson's Field property line, thus enclosing the saltwater wetlands as well as the MDC public open space property.

Then southerly, westerly, southwesterly, northwesterly, and northeasterly around the TTOR property line back to the 100-foot wetlands buffer, thus enclosing the TTOR public access open space parcel.

Then northwesterly along the 100-foot wetlands buffer to the intersection with the Town of Milton's Captain's Landing property, as shown on Town of Milton map Roll 7 Sheet 1.

Then around the Town of Milton's Captain's Landing property line back to the 100-foot wetlands buffer.

Then northwesterly along the 100-foot wetlands buffer to the intersection with the Town of Milton's Town Landing and Town open space parcels, as shown on Town of Milton map Roll 7 Sheet 1.

Then around the Town of Milton's Town Landing and Town open space parcels back to the 100-foot wetlands buffer.

Then along the 100-foot wetlands buffer northwesterly to the Lower Mills Dam across the Neponset River in Milton and Dorchester (Boston), and including any adjacent parcels of the Dorchester/Milton Lower Mills National Register District, as shown on the Dorchester/Milton Lower Mills National Register District map.

Then along and including the Lower Mills Dam structure across the <u>Milton-Boston</u> municipal boundary to the 100-foot wetlands buffer in <u>Boston</u>; along the 100-foot wetlands buffer easterly to the MDC property line along Ventura Street in Boston, and including any adjacent parcels of the Dorchester/Milton Lower Mills National Register District, as shown on the Dorchester/Milton Lower Mills National Register District map.

Then northeasterly along the MDC property line and the 100foot wetlands buffer to the MDC property line east of the Southeast Expressway.

Then northeasterly, northerly, westerly, southerly, northwesterly, and northeasterly along the MDC property line and the 100-foot wetlands buffer, whichever is further from the Neponset River, back to the intersection of the 100-foot wetlands buffer with the walkway at Commercial Point, as shown on the City of Boston Planimetric Survey 14N-14E and back to the beginning point of the boundary description, thus including the MDC open space properties, and the wetlands resources, including the tidal inlet west of the Port Norfolk neighborhood.

## IV. Discussion of the Criteria for Designation

In the review process leading to the designation of a nominated area, the Secretary must consider the factors specified in section 12.09 of the ACEC Regulations. As stated in the regulations, the factors need not be weighed equally, nor must all of these factors be present for an area to be designated. The strong presence of a single factor may be sufficient for designation.

Based on the information presented in the letter of nomination, at the public hearing, in written comments received throughout the public review process, and in agency research and review, I make the following findings in support of the designation of the Neponset River Estuary ACEC.

## (1) Threat to the Public Health Through Inappropriate Use

As mentioned in the above Description of the Resources of the Neponset River Estuary ACEC, much of the ACEC is floodplain, a natural hazard area. Although much of the upland portions of the ACEC are already developed, I find that potential future inappropriate development in sensitive areas, increased impervious surfaces, and inadequately designed and constructed storm water measures constitute a threat to the resources of the ACEC and to public health and safety.

Contaminated shellfish beds due to poor water quality resulting from inappropriate development also constitute a potential threat to public health and safety. Although shellfish harvesting is restricted, attempts to harvest shellfish threaten public health. In addition, poor water quality threatens public health through the public use of beaches and swimming areas.

Finally, there is a threat to public health resulting from the location of at least 13 potential hazardous waste sites (also known as 21E sites) listed by the Department of Environmental Protection (DEP) as located within the nominated area as of December 16, 1994. This number includes the former Neponset Drive-In site owned by MDC. In finding that ACEC designation is appropriate because of threats associated with inappropriate use, I recommend that this ACEC designation be implemented to facilitate and expedite the clean-up of hazardous waste sites located within the ACEC by the DEP, MDC and authorized parties to protect public health and to restore and preserve the resources of the ACEC.

#### (2) Quality of the Natural Characteristics

The undeveloped Neponset marshes are an outstanding natural characteristic significant to the region, and the recreational opportunities afforded by the river for boating, swimming and fishing, and by MDC lands and other open space areas for other forms of recreation strongly support ACEC designation.

## (3) Productivity

Estuarine wetland systems are among the richest and most biologically productive ecosystems on earth, and the Neponset River estuary is no exception. Furthermore, comments from the Massachusetts Division of Marine Fisheries and the Natural Heritage & Endangered Species Program (see above Description of the Resources of the Neponset River Estuary ACEC), underline the significance of the area regarding biological productivity and diversity of wildlife.

## (4) Uniqueness of Area

The uniqueness of the area is defined from a regional, state or national perspective, considering features such as endangered plant and animal species, archaeological/historic/cultural resources, or other resources of educational value. Once again referring to section II. above, Description of the Resources of the Neponset River Estuary ACEC, I find that the uniqueness of this area supports ACEC designation, through the presence of state-listed rare species and archaeological and historic resources, and the educational value this riverine, salt marsh ecosystem to the Boston metropolitan area.

## (5) <u>Irreversibility and Magnitude of Impact, and Imminence of</u> <u>Threat to the Resources</u>

I find that the resources of the Neponset River Estuary are subject to heavy historical and current development pressures that threaten their continued viability as a healthy and productive ecosystem. The condition of and threats to resources are similar if not identical to those described in the designation document for the Fowl Meadow and Ponkapoag Bog ACEC: "Historically, discharges to the Neponset River from a variety of sources resulted in extremely poor water quality. Water quality has improved since the passage and implementation of the Clean Water Act, but according to recent information from the DEP Bureau of Resource Protection (BRP), the river does not meet Class B standards. According to BRP, 'Through the discharge permit and construction grant programs, point sources have largely been cleaned up, but unless nonpoint sources are addressed, the river will not meet Class B standards. The river does not meet its designated uses because of high coliform bacteria counts, nutrient enrichment, and low dissolved oxygen levels. The

sources of these pollutants are CSOs (Combined Sewer Outflows), exfiltration, urban runoff and septic systems ....'"

It is essential that these kinds of conditions, combined with continued urban use and development pressures, do not result in irreversible environmental degradation of the Neponset River estuary. Therefore, as with the previous ACEC designation of Fowl Meadow and Ponkapoag Bog, I find that the Neponset River Estuary ACEC designation is warranted to protect the resources from imminent threats, and highly significant, adverse and irreversible impacts.

### (6) Economic Benefits

Economic benefits are described in the ACEC Regulations in terms of intrinsic values important to a region's economic stability, such as recreation, tourism, and fisheries development. Recreation values of the area associated with the Neponset River, and the extensive public recreation and open space areas described above, strongly support designation. Fisheries development supporting designation is also clearly documented in section II. above, Description of the Resources of the Neponset River Estuary ACEC.

#### (7) <u>Supporting Factors</u>

Over 70 comments were received regarding the nomination. Written or oral testimony was received from three state legislators; five municipal boards and commissions; 16 environmental and community organizations; three businesses; ten federal and state agencies; and over thirty citizens. Although not all comments supported ACEC designation, and many expressed concerns or reservations regarding designation, the large majority of comments recognized the intrinsic value and importance of the area.

Considering 1) the characteristics of the resources of the area as described above; 2) the significance of the area in the context of the factors supporting designation; 3) that the area is located in three different municipalities without coordinated local control; and 4) that significant portions are owned by public agencies, the recommendations and comments submitted by the Massachusetts Coastal Zone Management (MCZM) Office, dated February 6, 1995, are especially relevant to my decision to designate the Neponset River Estuary as an ACEC.

The following statements paraphrase MCZM's comments and recommendations.

• The Neponset Estuary represents a unique opportunity to protect and <u>restore</u> a suite of valuable resources.

• An ACEC designation requires a coordinated state review of activities proposed in the area designated, and given the incremental nature of the environmental insults to an urbanized

ecosystem, a coordinated review is important to future restoration efforts.

• The nomination process has pointed out the large number of conflicting visions that exist for parts of the Neponset Estuary, and without a context for resolution of these differences, it is likely that they will be settled by default. The resource management plan that is to be a part of the proposed designation process provides an appropriate forum for resolution of these conflicts.

• A major value of ACEC designation is the educational function that it performs. The focus on the ecosystem, the coordinated review process, and the work to develop resource management goals all make the public and government agencies more aware of the critical nature of the assets that are to be protected. An informed constituency is more likely to work to improve an ecosystem's environmental values.

I find that these supporting factors further justify ACEC designation.

Conclusion

Therefore, I am pleased to exercise the authority granted to me pursuant to M.G.L. Chapter 21A, Section 2(7), to designate the Neponset River Estuary as an Area of Critical Environmental Concern.

MARC 11 27 1995

Trudy Coxe Secretary of Environmental Affairs

Date