

DESIGNATION OF CRANBERRY BROOK WATERSHED AS AN AREA OF CRITICAL ENVIRONMENTAL CONCERN

Following an extensive review in compliance with regulations of the Massachusetts Environmental Policy Act (301 CMR 10.17), including nomination, research, informal meetings with local groups, public hearings, on-site visits and evaluation of all public comments and assembled data, I, the Secretary of Environmental Affairs, hereby designate a portion of the Cranberry Brook Watershed in the towns of Braintree and Holbrook as an Area of Critical Environmental Concern. This action is taken pursuant to the authority granted to me by Massachusetts G.L. c. 21A, s. 7.

I. Boundary of the Cranberry Brook Watershed ACEC

The boundary of the nominated area, as shown on the attached map, includes the entire Cranberry Brook watershed in Braintree and Holbrook except the presently developed portion of the watershed which is bordered by the east sideline of Pine Street in Holbrook and Liberty Street in Braintree to Wildwood Avenue, thence the north sideline of Wildwood Avenue to the Station at 9⁺ 90[±] (Park Street), thence northerly by S33-53' - 50"E to the intersection with the northwest sideline of Washington Street, thence southerly by the west sideline of Washington Street, to its intersection with the boundary near South Street.

A map showing the boundaries of the ACEC , entitled

"Town of Braintree Department of Planning and
Conservation Plan of Wetlands in Cranberry Brook
Watershed Area"

dated, September 1981 and revised August 1982, is on file in the Braintree Town Hall.

II. Description of the Resources of the Cranberry Brook Watershed ACEC

The resources of the Cranberry Brook Watershed have remained largely unaltered despite its generally urban setting. Significant features within the ACEC include flood plains, freshwater wetlands, marshes, swamps, a stream and a 7.5 acre pond. The area is used by the public for passive recreation and for natural science education.

Wetlands, bogs and the pond within the ACEC are productive habitats for a variety of plant and animal species. Two natural quaking bogs, which contain wildflowers in abundance and are surrounded by Atlantic white cedars, tupelos and chestnut oaks, constitute significant scenic vistas.

The site clearly meets the regulatory criterion that an area proposed for designation must contain at least five of the specified features.

Procedures Leading to ACEC Designation

The Braintree Conservation Commission began its research and data collection for the proposed ACEC in December 1980. In the ensuing year the commission discussed the proposal with local groups, the Metropolitan Area Planning Council, the Massachusetts Association of Conservation Commissions and staff members of Coastal Zone Management and the Massachusetts Environmental Policy Act of the Executive Office of Environmental Affairs.

On December 22, 1981, a letter nominating the portion of the Cranberry Brook Watershed in Braintree was submitted to this office by the Braintree Conservation Commission. A hearing was held in Braintree on February 17, 1982. Subsequently, a letter from the Holbrook Conservation Commission dated April 27, 1982 requested inclusion of the Holbrook portion of the watershed in the ACEC. A second informational meeting and slide presentation was held in my office on April 29, 1982. The nomination was accepted in a letter to the Braintree and Holbrook Conservation Commissions on June 23, 1982, marking the commencement of the review process for designation of the ACEC.

Notice of a public hearing was published in the Environmental Monitor on August 9, 1982. Notice was also given in the Patriot Ledger (September 1) and the Braintree Forum (September 2) and was widely circulated in Braintree and Holbrook by mail. A public hearing was held on September 15 in the Braintree Town Hall.

In addition to testimony at the public hearing, 23 written comments favoring the designation and one opposing it were received. During the review period, members of my staff met with the opponent (Tedeschi Realty, a landowner) and his consultants to discuss the reasons for his opposition, set forth in a letter dated February 26, 1982, and made several on-site visits to the watershed. Supporters of the nomination and designation included town boards in Braintree, Holbrook and Weymouth, local and regional civic and environmental organizations, members of the State Legislature and the U.S. Congress.

On November 18, 1982, the Braintree Conservation Commission, withdrew the request for designation which stopped any further actions or review at that time.

On March 8, 1983, I received a new request for nomination, filed by the Conservation Commissions of both Braintree and Holbrook. The boundaries of the area and the resources identified were identical to those in the original proposal. On May 5, 1983, I placed the area in nomination and, since the area and resources had not changed, determined that the comments received on the original application would also be reviewed in connection with the current application. A public hearing was held on June 9, 1983 at 7:00 p.m. in the Braintree Town Hall after notification through the May 9 Monitor, newspapers, and mailings.

On June 28, 1983, a second letter was received on behalf of Tedeschi Realty. Arguments made in the letter in opposition to the ACEC designation can be summarized as follows:

- (1) the wetlands are already protected by existing regulations and, in some instances, by town ownership;
- (2) soils in the watershed are not characteristic of groundwater recharge areas;

- (3)the proposed ACEC acreage is but a small fraction of the water supply watershed; therefore, measurable effects on water quality attributable to the designation are unlikely;
- (4)road improvements necessary to develop the area will trigger MEPA review regardless of ACEC designation.

After reviewing these issues I have reached the following conclusions:

- (1)While it is true that much of the proposed ACEC is under town ownership, most of the remainder, owned by Tedeschi Realty, is industrially zoned. In fact, the owner proposed a landfill on a portion of this site several years ago. The two quaking bogs and considerable wetland acreage are downstream of industrially-zoned land and could be affected by its development.
- (2)I concur with the statement that soils in the watershed are not characteristic of groundwater recharge areas. However, I find that protection of surface water quality in the watershed is of critical importance.
- (3)The proposed ACEC is approximately 12% of the watershed of Ricardi Reservoir, a water supply for Braintree, Holbrook and Randolph. Its importance to the reservoir is greater than 12%, as other portions of the watershed are developed, and one portion is threatened by a hazardous waste site. This issue is further elaborated in section IV, Threat to Public Health.

All comments received are on file at the MEPA office.

IV. Discussion of Factors Specified in Section 10.17(6) of the MEPA Regulations

In the review process leading to the decision on a nominated area, the Secretary must consider the factors specified in Section 10.17(6) of the MEPA Regulations. As stated in these regulations, the factors need not be weighed equally, nor must all 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.

Based on information in the nomination letter, at the public hearing, in written comments and from research and site inspections by my staff, I find the following factors applicable to the designated ACEC:

Threat to the Public Health

Protection of the water supply has been a primary concern in seeking the ACEC designation. Recent water shortage in Braintree has been well documented. In October 1980 the Department of Environmental Quality Engineering declared Braintree to be a state of water emergency, in accordance with Chapter 40, Section 41A, restricting outdoor water use. The Cranberry Brook Watershed comprises about 12% of the total watershed which supplies the Richardi Reservoir. This reservoir, for which the Joint Board of Water Commissioners for Braintree, Holbrook and Randolph are currently seeking Class A

designation, provides 50% of the three towns' water supply. A local hazardous waste situation in another portion of the Richardi Reservoir watershed has underscored the importance of the Cranberry Brook Watershed, which contributes the highquality water needed to dilute lesser-quality contributions. Loss of wetlands which collect, store and filter surface water, or pollution of wetlands from inappropriate use of upland areas, could jeopardize this vital water supply source.

Quality of Natural Characteristics

Most of the undeveloped land in the watershed is either wetlands, including extensive cedar swamps on both the town-owned and privately owned parcels or second-growth woodlands. Nearly all traces of the past have disappeared, except for old stone walls and a system of trails.

The area contains two pristine sphagnum bogs - one in the privately owned and the other in the town-owned portion - considered to be among the three or four best examples of natural quaking bogs in southeastern Massachusetts. The bogs are large and relatively shrubless, producing an unusual diversity of vegetation including cranberries; leatherleaf; two varieties of insectivorous plants (Drosera, or sundews, and Sarracenia, or pitcher plants); two orchid species, Calopogon and Pogonia; meadow beauty; pond lillies; grasses and sedges. They are surrounded by Atlantic white cedars, providing a breathtaking vista. The surrounding rock outcrops support large numbers of chestnut oaks, also unusual in southeastern Massachusetts.

Productivity

The two bogs and Cranberry Pond support a variety of trees, wildflowers and sphagnum moss. In addition to the Atlantic white cedars which encircle the bogs, tupelos, chestnut oaks, azaleas and high-bush blueberries abound beyond their edges. The aquatic environment in which they are situated, encompassing the pond, brook and approximately 157 acres of wetlands, forms a unique and uncommon assemblage of plants and organisms. The watershed also serves as a habitat for birds, small animals and deer.

Uniqueness of the Area

In a town which has undergone rapid urbanization, this tract is one of the few remaining natural areas. Its recreational use is limited to passive activities - hiking, ski touring, bird watching, or just sitting by a pond out of sight of man-made structures. In urbanized areas, wetlands and watersheds which may have less functional value in absolute terms than those in rural areas can have greater value to man, since they serve more people and are unusual in the urban environment. Scarcity or rareness depends on frequency of occurrence and amount of similar habitat in the present landscape of the region. It is this test of regional scarcity of wetland-watershed type which should be applied to Cranberry Pond and the Cranberry-Brook Watershed. By any test, however, the two quaking bogs and the richness of their habitats qualify as outstanding and unique resources. Their urban surroundings make them all the more spectacular.

Irreversibility of Impact

One resource which could be irreversibly damaged, the tri-town water supply, was discussed earlier. Pollutants, loss of wetlands or excessive impervious cover within the watershed could adversely affect water quality and quantity of Cranberry Brook.

The two quaking bogs and the aquatic systems on which they depend constitute a second resource which could be permanently altered by inappropriate activities in the watershed. The environmental requirements of plants and organisms in sphagnum bogs are narrow. Changes in the acidity level or in the amount and rate of water entering the bogs would irreversibly alter their habitats.

Imminence of Threat to the Resource

Undeveloped lands in the watershed are zoned for industrial and residential development. Although it remains undeveloped, several proposals, including one for a landfill, have been put forth for the industrially-zoned land. Residentially-zoned portions of the watershed have experienced rapid growth during the past few years. Two large subdivisions are near completion, and construction of a third is soon to begin. Designation of the ACEC will focus attention on the value and sensitivity of the area as future development takes place.

Supporting Factors

With the exception of one owner of land within the ACEC, there has been unanimous agreement on the appropriateness of the designation among local residents, environmental and civic groups, boards, and commissions in Braintree, Holbrook and Weymouth, as well as state and federal legislators. Public ownership of land within the watershed provides further evidence of local awareness of the importance of the area. The watershed's approximately two square miles include 116 acres owned by the Braintree Conservation Commission, 112 acres of Town Forest in Braintree and 80 acres of town-owned land in Holbrook. I am convinced that, except for a portion of the watershed in Braintree where housing is already built and which I have therefore chosen to exclude, the Cranberry Brook Watershed is very appropriate for designation as an Area of Critical Environmental Concern.

(signed) James Hoyt July 28, 1983
Secretary of Environmental Affairs

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