

PROJECT NUMBER NOTES

That be + hb is requested to  
G: NCM: Respond to all

The Friends of Atewaife Recommendation  
for a Comprehensive Watershed Plan

(see attachment)  
for the Atewaife area; + be ut  
further response include  
Orbiad: The response shared include  
and timeline

a plan for regional cooperation

and planning as well as for  
cooperation and coordination with  
any existing planning efforts

HD add  
Response to include  
coord + coord w/  
any existing planning  
efforts

VV / 9



# City of Cambridge

O-38.

**IN CITY COUNCIL**

September 24, 2001

COUNCILLOR DAVIS  
COUNCILLOR BRAUDE  
COUNCILLOR BORN  
COUNCILLOR DECKER  
MAYOR GALLUCCIO  
VICE MAYOR MAHER  
COUNCILLOR REEVES  
COUNCILLOR SULLIVAN  
COUNCILLOR TOOMEY

ORDERED: That the City Manager be and hereby is requested to respond to the Friends of Alewife Reservation recommendation for a comprehensive Watershed Plan for the Alewife area (see attachment); and be it further

ORDERED: That said response should include a plan and timeline provisions for regional cooperation and planning, as well as for cooperation and coordination with any existing planning efforts.

In City Council September 24, 2001.

Adopted by the affirmative vote of nine members.

Attest:- D. Margaret Drury, City Clerk.

A true copy;

ATTEST:-

A handwritten signature in cursive script that reads "D. Margaret Drury".

D. Margaret Drury  
City Clerk

*Friends of Alewife Reservation*



*P.O. Box 161  
1770 Mass. Ave.  
Cambridge, MA. 02140-2028*

Dear friends of the Alewife region,

This mailing for endorsement will be sent to groups, which have demonstrated their commitment to the protection of the Alewife watershed. My own background is in wetland science and I work in the wetland and watershed protection field. I recognize these principles are only a beginning in gathering the full array of hydrological and other data that will present unique assessment requirements for the Alewife area. I have been volunteering with the Friends of Alewife Reservation and have joined their Board this year. Much excellent work and positive news attention has been coming from dedicated volunteers and policy advocates in the area.

Your group's signature to this letter may empower the formation of a large coalition of environmental, civic and other Groups and individuals who want to plan the area and who would also put forward a watershed baseline in order to assess Alewife's conservation and development potential. The purpose of this initiative is to assure that baseline ecological principles and restoration needs such as those attached to this letter are considered before embarking upon other forms of residential, commercial and urban planning. Alewife's urban wild contains irreplaceable wetland resource areas-ponds, brooks, marshes, a river, floodplain, habitat for wide variety of plants and animals. Some intrinsic values of these resource areas are buffer from noise, and crowding, flood control, wildlife habitat, nature study, recreation, ground water supply and improvement of surface water quality. This signed letter would be sent to various agencies and decision- making bodies who are empowered to permit and to allow various changes to take place in the area which are likely irreversible. The planning bodies may be influenced by a coalition of concerned groups, who have demonstrated their appreciation for Alewife over many years.

This watershed proposal goes beyond the federally mandated state and city of Cambridge's present sewer separation and storm water management. The eight year project aims to improve the health and well being of residents and waterways of the Alewife area significantly. This letter developed in light of the necessity of improving the water and sewer systems in North and Northwest Cambridge and Alewife area. The Metropolitan District Commission's master plan now in concept phase, will include some, if not most of the following principles. Because of the high development potential of the area, I have included some impervious surface projections used in many Massachusetts watershed areas.

As most agree, the Alewife region is facing immediate development pressures. Without a comprehensive watershed plan, the valuable environmental components of this natural area will be further degraded or destroyed, to the detriment of us all.

Sincerely yours,

Mary White

## **A BASIC WATERSHED PLANNING MODEL**

- The first step in a watershed management plan, of course, is preparing a watershed study and gathering the data, and documenting the natural resources that the area has to offer.
- The second step is a comprehensive watershed management plan.
- The third step is implementation of all measures identified to protect the watershed from impacts of development.
- The fourth step is to establish a baseline to monitor the effectiveness of implementation.

Attached is a first draft of such a set of principles. These will be used for our own joint guidance and education of political and administrative groups.

"A dynamic local watershed management plan is ... the best and most comprehensive tool to protect urban streams, lakes and estuaries from the cumulative impact of land development."

*From "Watershed Protection Techniques", a national watershed magazine.*

### **I. REGIONAL COOPERATION AND PLANNING**

- A. Creation of a formal or informal watershed authority invested with implementation of the plan and updating it. Either a single watershed authority or a series of smaller authorities at the subwatershed level.
  1. Look for funding mechanisms.
  2. Devise specific criteria to guide subwatershed development.
  3. Incorporate priorities from larger watershed management units for consistency.
  4. Actively engage stakeholders and include public early and often.
  5. Promote intra and inter-agency coordination (governmental).

### **II. A WATERSHED MANAGEMENT PLAN**

(Assessment of impervious cover)

- A. Conduct the plan at the subwatershed scale, which is defined as having a drainage area of two to 15 square miles in size.
  1. Accurately measure and forecast land use.  
(Impervious cover is the best indicator of development activity, and is of great use for classifying urban streams and managing subwatersheds.)
  2. Each subwatershed can be classified into one of three categories, based on current or future estimates of present impervious cover:
    3. Sensitive streams where impervious cover is 0-10%,  
Impacted streams 11-25% .Non-supporting streams 26-100%.
  4. Develop local land use/impervious cover ratios to cover future zoning build-out rates or growth.
  5. Shift the proposed location and density of future development based on projected future impervious cover impacts that may downgrade a stream's classification.

III. WATERSHED RESOURCE ASSESSMENT

- A. Produce an integrated resource map for the subwatersheds.
  - 1. This map shall include the location of catchments, steep slopes, scenic, cultural, historic, scientific areas of value, soils, vegetative cover (maturity, diversity, presence of rare or endangered species, invasive species) wildlife habitats (including any rare or endangered species), floodplains, stream buffers, wetlands, conservation areas, parks, open space, existing development, future zoning, stormwater practices or watershed restoration projects, strategic monitoring stations, and air quality (wind, temperature, climate), vandalism, stewardship.
  - 2. Emphasize strategic resource-based monitoring (water quality sampling, degradation reports or erosion).
  - 3. Audit effectiveness of local watershed protection programs

IV. CHARACTERISTICS OF SOME SUCCESSFUL WATERSHED MANAGEMENT PLANS:

- A. Commit to a continuous watershed management cycle.
  - 1. Sequence plans according to a staggered schedule, with a few started each year so all subwatershed plans are completed within 5-7 yrs.
  - 2. The area must be broken into subwatersheds of 50 acres or less and constituents for each subwatershed assigned.
  - 3. Prevailing zoning changes must be reviewed to project impacts onto watershed components.
  - 4. The scope of work must be defined realistically under current financial realities.
  - 5. Focus the plan on tangible outcomes with respect to land use and practices and do not get caught up with expensive tools of watershed analysis (GIS), computer models, for example.
  - 6. Plan recommendations need to be as specific as possible, including the authority, budget and timeline to make it happen.
  - 7. The document must be short and simple.
  - 8. Management objectives must be understood and integrated into existing local government processes, such as funding mechanisms, zoning laws, regulations, etc.
  - 9. The plan must be incorporated into meaningful regulatory review documents
  - 10. Key stakeholders such as residents, students, professionals, commerce, environmentalists, etc., must be involved in developing the management plan.

Organization: \_\_\_\_\_ Purpose of Organization

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D. Margaret Drury  
City Clerk

293 CM

**Order #38**

Response to the Friends of Alewife  
Reservation recommendation for a  
comprehensive Watershed Plan for  
the Alewife area.

**Councillors Davis, Braude, Born  
and entire membership**

**In City Council September 24, 2001**

**ORDER ADOPTED**