

Mystic River Watershed Assessment and Action Plan

I. Purpose

The purpose of the Mystic River Watershed Assessment and Action Plan project is to provide a coherent picture of current conditions for the Alewife, Aberjona, Chelsea Creek, and Malden River sub-watersheds and their downstream impacts to the Mystic River; identify data gaps; and identify and recommend high priority actions to address environmental issues (water quality, water quantity, habitat, open space, recreation, local capacity building and outreach) and endangered species habitats (priority habitats, wetlands/streams, ACECs, and anadromous fish runs). Priority areas previously identified for the restoration of the Mystic River watershed include: 1) Water Quality Restoration (in particular, making the river fishable and swimmable by 2010) and Flow Management, 2) Watershed Identify and Awareness, 3) Habitat Restoration, 4) New Governance and Partnerships, and 5) Public Access. Environmental justice was identified as a component of each area. These priority areas, to the extent possible, will be considered in the Mystic River watershed assessment and action plan.

The specifics for each task are described below.

II. Scope of Services:

TASK 1: Conduct Literature and Data Review of Past and Current Studies

The Contractor, with assistance from the EOEa Watershed Team, will compile data on environmental issues and endangered species habitats for the four sub-watersheds in the Mystic River watershed (Aberjona, Alewife, Chelsea Creek, and Malden) including water quality, habitat, and open space, obtained from major reports and ongoing studies outlined in their proposal and from other sources; coordinate with Urban Harbors "Water Quality Strategy" team and the EOEa Basin Team leader to ensure completeness of reports list; and generate GIS maps of sampling locations and select environmental features such as wetlands or open space.

Deliverables:

- 1) Narrative describing the goals, objectives, and scope of work of each study reviewed;
- 2) Excel files of raw tabulated water quality and hydraulic data including latitude and longitude of the sampling sites, the date of sample collection, the analytical methods used, the QA/QC measures taken, if documented, and the results of the analyses; and,
- 3) GIS maps of sampling sites and select environmental features.

TASK 2: Summarize Findings, Identify and Prioritize Issues and Data Gaps

The Contractor will review data compiled in Task 1 to determine how much information they provide on 1) present water quality, 2) present pollution sources, 3) the loads from those sources, and 4) trends. The results will be compared to Class B water quality standards and other factors, including wet versus dry conditions. Where possible the Contractor will estimate pollutant loads.

Data on the hydraulics of Alewife Brook will be analyzed to determine if they are adequate to explain 1) present flooding problems in Alewife Brook from upstream and bordering sources and 2) the impacts of downstream controls (such as the Craddock locks and the Amelia Earhart Dam) on Alewife Brook flooding and low flushing flows.

The priority of filling the data gaps will be based upon the importance of the data for decision-making purposes. The Contractor will provide a summary that identifies data gaps and prioritizes issues. Summary of Task 1 results (to be part of Task 3) will include an analysis of temporal and geographic trends in data, metrics for prioritization of physical parameters and other factors (e.g., regulatory fish/swim standards), results of prioritization, identification of data gaps and recommendations for addressing these gaps. Deliverables under this task will be used to prepare an Action Plan (Task 3).

Deliverables:

- 1) Summary of data analysis for temporal and geographic trends and impacts to the Mystic River;
- 2) metrics for the prioritization of individual parameters and other factors (e.g., regulatory "fishable/swimmable" standards);
- 3) identification of where there is insufficient data to detect trends; and;
- 4) develop recommendations for addressing these gaps.

TASK 3: Prepare Action Plan

The Contractor will, using the results of Task 1 and 2 as core material, will prepare a draft outline for an Action Plan and submit the outline to EOEa watershed team for review and comment. The Action Plan will include:

- a) Maps of area and sampling locations;
- b) General land use, natural resources & hydrologic information;
- c) History of Mystic River area;
- d) Summary of results of Mystic River Watershed Future Search process;
- e) Roles of Basin Team, municipal officials, business community, citizens' groups and permitting agencies in both developing the Plan and implementing the recommendations;
- f) Identification of highest priority problems/challenges in the Alewife area, including data gaps; and
- g) Recommended actions to address priority problems, including proposed timeline, stakeholders and potential lead partners, possible funding sources, measures for success, and Local capacity building issues.

The Contractor will finalize Action Plan contents incorporating Basin Team comments, present a draft plan to stakeholders and Basin Team, incorporate comments, and; produce a final Action Plan that prioritizes environmental issues and concerns and sets forth a schedule for action.

Deliverables:

- 1) Provide 100 hard copies of the Action Plan printed and distributed to the Watershed Team, selected officials, local citizens' groups, area landowners and other interested parties;
- 2) Publish executive summary of the report on MyRWA website; and
- 3) Copy of Action Plan in MS Word or PDF format on CD-ROM or other mutually acceptable format.