



**MEMORANDUM OF UNDERSTANDING
ON THE
URBAN WATERS & MYSTIC RIVER UNIVERSITY COLLABORATIVE
BETWEEN THE
U.S. ENVIRONMENTAL PROTECTION AGENCY, NEW ENGLAND REGION
AND THE
UNIVERSITY OF MASSACHUSETTS – BOSTON**

I. PURPOSE/OBJECTIVES/GOALS

The UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, NEW ENGLAND REGION (“EPA New England”) and the UNIVERSITY OF MASSACHUSETTS at BOSTON (“UMass Boston”), an educational institution organized under the laws of the Commonwealth of Massachusetts, by and through its Department of Biology, Department of Environmental Earth and Ocean Sciences (“EEOS”), and the Urban Harbors Institute, in recognition of their mutual commitment to protect the public health and safety and the environment, are entering into this Memorandum of Understanding (“MOU”) dated December 21, 2011 to establish a basic framework for a relationship between the parties to promote urban water restoration and monitoring, water quality awareness, scientific research, and marine and environmental education.

II. BACKGROUND

In 2006, EPA New England began working with Massachusetts Department of Environmental Protection and the Mystic River Watershed Association on monitoring and compliance activities. EPA New England launched the first annual Mystic River Watershed report card in 2007. In 2008, EPA New England held a Summit on the watershed and launched a broader initiative.

In early 2009, the Mystic River Watershed Steering Committee was created to allow environmental advocates, state and federal regulators, and business and municipal leaders to work collaboratively to promote actions that will improve environmental conditions throughout the watershed. This committee is composed of 22 organizations including not-for-profit community groups, local, state, and federal governmental agencies.

The goal of this collaborative effort is to help restore and protect water quality and wildlife habitat, increase open space and public access to, and sustainable recreational use of, the river and its tributaries. The group plans to support these goals by collaborating on activities that improve water quality, increase the level of environmental compliance, and raise public awareness, understanding and access to information about the Mystic River Watershed. EPA New England and the Steering Committee also intend to address overarching environmental justice concerns within the watershed as we move forward.

In March 2010, EPA New England solicited Boston area universities to submit a letter of interest in collaborating with EPA on the Mystic River Watershed Initiative and other urban waters restoration work. Five universities responded with interest and through the selection process, UMass Boston was chosen as the best fit.

In addition to our Mystic River Watershed Initiative, EPA New England and UMass Boston anticipate collaboration on regional Urban Waters projects. EPA New England has a long history of focused urban waters work, and in 2007, co-hosted a series of Urban River conferences. The events were each co-hosted by local organizations and both were very well attended by people from all levels of government, environmental and public health advocates, watershed associations, utility representatives, consultants, planners, citizens, non-profits, colleges, universities and private organizations. These conferences highlighted topics of on-going importance to the Mystic River watershed, such as stormwater and illicit connections, water quality, sediments, public access, restoration, land conservation, and success stories.

EPA New England is also engaged in a variety of work to restore urban waters throughout New England and will continue to support urban water restoration through its enforcement, watershed, urban, permitting, and monitoring programs. Most recently, EPA New England has been involved with EPA Headquarters in the development of a national EPA Urban Waters Initiative. EPA New England anticipates collaboration with UMass Boston in these areas as well.

UMass Boston is nationally recognized as a model of excellence for urban universities. A comprehensive, doctoral-granting campus provides challenging teaching, distinguished research, and the service of experts to the academic and economic needs of the state's urban areas and their diverse populations.

The UMass Boston Departments of Environmental, Earth, and Ocean Sciences (EEOS) and Biology, and the Urban Harbor Institute (UHI) have a team of researchers, educators and students with multidisciplinary expertise to support and collaborate with EPA on the Mystic River Watershed Initiative in the following areas: 1) **Research.** UMass Boston has the expertise to a) assess water quality on the basis of physical status (e.g. habitat assessment), chemical content (e.g. nutrients), and biological inventory and health (e.g. fish and invertebrates); b) develop chemical assays, bacterial culture-based counts and molecular-based methods for the accurate and cost-effective monitoring of Mystic River waters and identifying major sources of bacterial contamination; c) develop protocols to collect, quantify, and identify cyanobacteria in Mystic River waters; and d) develop hydrological-based models to predict when and how long low water quality criteria occur based on rainfall and other environmental parameters; 2) **Education.** UMass Boston has the capacity to engage students in the Mystic River Watershed Initiative; to participate in workshops, seminars and presentations with UMass Boston, EPA and regional scientists; 3) **Outreach.** UMass Boston has the ability to compile and analyze data from EPA, communities and local watershed associations; and to translate and disseminate this information to local communities and stakeholders; to develop educational outreach and civic science programs for better community participation and stewardship in the Mystic River Watershed Initiative; and 4) **Management.** UMass Boston has the expertise to link environmental quality data with effective response measures.

In all, the parties anticipate that they will engage in a collaborative relationship to support EPA New England's Urban Waters/Mystic River Watershed Initiative, beach program, and nonpoint source program to work on water quality research, monitoring, assessment, and analysis. Specific examples of potential collaborative projects are listed below in section IV, ROLES AND

RESPONSIBILITIES

III. AUTHORITIES

EPA enters into this MOU pursuant to Sections 104(a) and (b) of the Clean Water Act, 33 U.S.C. §§1254(a) and (b). These provisions authorize EPA New England to encourage, cooperate with and render technical services to individuals, including the general public, as well as public and private sector entities to promote the coordination and acceleration of demonstrations, studies and training relating to the causes, effects, prevention and elimination of water pollution.

IV. ROLES AND RESPONSIBILITIES

Each party will keep the other generally informed of its relevant plans and schedules, will respond to the other party's requests for information to the extent reasonable and practicable and in accordance with relevant legal authorities, including but not limited to, the Freedom of Information Act.

In conjunction with this MOU, UMass Boston will serve as Lead Academic Technical Liaison to the Mystic River Steering Committee. By serving in this capacity, UMass Boston will participate in Steering Committee and other meetings to provide technical support. Although, Technical Liaisons are not voting members, they are welcome to attend all Steering Committee meetings and/or can serve as scientific experts for issue-oriented and project specific needs. This role and its responsibilities will be re-evaluated every two years, as needed, to accommodate any direction or changes by the Steering Committee.

In carrying out their respective responsibilities, EPA New England and UMass Boston will strive to:

- Meet with interested deans or department heads from area colleges and universities to discuss areas for collaboration in support of EPA New England's Urban Waters Initiative and Mystic River Watershed Initiative (see website at <http://www.epa.gov/region01/mysticriver/index.html>).
- Work to develop accurate and cost-effective methods to monitor and determine the sources of bacterial contamination.
- Work to develop laboratory science, methods, and capability to collect and analyze cyanobacteria samples.
- Work to develop data to determine the performance of various low impact development techniques and how they can be applied widely in urban coastal and watershed environments.
- Provide technical input to the Mystic River Watershed Initiative Science Committee.
- Work to develop models to predict when and how long exceedances of bacteria water quality criteria occur based on rainfall and other factors.
- Engage undergraduate and graduate students in education, conferences, workshops, symposiums as well as local community events in the Boston area related to coastal/watershed programs and the Mystic River Watershed initiative. Participate in seminars and presentations with EPA New England scientists.
- Jointly participate in research surveys on EPA New England's scientific vessel, the Bold.
- Compile and analyze data from EPA, communities and/or local watershed associations.

- EPA New England expects to give 1-3 technical presentations and/or career development discussions to UMass Boston classes upon request and as resources allow.
- Work to develop internship opportunities for UMass Boston students to work with EPA New England staff on various projects related to coastal, watershed and Mystic River Watershed Initiative.
- Participate in events in the Mystic River Watershed and other urban watersheds where students with their advisors can learn by doing; if available, EPA New England may send staff and monitoring equipment.
- Work to develop outreach events and workshops where students can teach students, local community, and businesses about important environmental issues and their solutions

Subject to the availability of appropriated funds, EPA New England also plans to continue to employ a UMass Boston Co-op student for fiscal year 2012 to support the work of the Mystic River Watershed Initiative, Urban Water Restoration work and the work of this collaboration. The Co-op position provides technical, engineering/scientific and administrative support to scientists, engineers, and technical staff involved with implementing and administering agency environmental protection programs in the Surface Water Branch. The Branch is responsible for watershed, nonpoint source, stormwater, urban waters as well as ocean and coastal programs.

V. LIMITATIONS

A. As required by the Antideficiency Act, 31 U.S.C. 1341 and 1342, all commitments made by EPA New England in this MOU are subject to the availability of appropriated funds and each party's budget priorities. Nothing in this MOU, in and of itself, obligates UMass Boston or EPA New England to expend appropriations or other funds, or to enter into any contract, assistance agreement, interagency agreement, or incur other financial obligations. UMass Boston agrees not to submit a claim for compensation for services rendered to EPA New England or any other federal agency for activities undertaken in carrying out this MOU. This MOU does not exempt UMass Boston from EPA New England policies or federal laws governing competition for assistance agreements.

B. This MOU is neither a fiscal nor funds obligation document. Any endeavor involving reimbursement or contribution of funds between the parties to this MOU will be handled in accordance with applicable laws, regulations, and procedures, and will be subject to separate subsidiary agreements that will be effected in writing by representatives of both parties.

C. Except as provided in Section V. paragraphs (A) and (B) and Section VII, INTELLECTUAL PROPERTY, this MOU is not legally binding and does not create any right or benefit, substantive or procedural, enforceable by law or equity, by persons who are not party to this agreement, against UMass Boston or EPA New England, their officers or employees, or any other person. This MOU does not direct or apply to any person outside UMass Boston and EPA New England.

D. The Parties agree that any use of EPA/ORD research and test facilities, and the presence of outside users at such EPA/ORD facilities by non-government entities or individuals, will be negotiated separately in an Outside User's Agreement if EPA New England determines the use to be appropriate and in the public interest.

E. UMass Boston may make factual statements to the public which describe its cooperation with EPA New England. However, nothing in this MOU allows EPA New England to endorse the purchase or sale of UMass Boston's products or services. UMass Boston agrees not to make statements to the public in news releases, product brochures, on web sites, or in any media that implies EPA New England's endorsement of UMass Boston's products or services.

VI. PROPRIETARY INFORMATION

To carry out the joint work resulting from the MOU, UMass Boston may need to disclose proprietary information to EPA New England. For the purpose of this MOU, proprietary information is defined as information that an affected business claims to be confidential and is not otherwise available to the public. UMass Boston agrees to clearly identify confidential information disclosed to EPA New England in writing, and to clearly memorialize in writing, within a reasonable time, any confidential information initially disclosed orally. EPA New England agrees not to disclose, copy, reproduce or otherwise make available in any form whatsoever to any other person, firm, corporation, partnership, association or other entity information designated as proprietary or confidential information without the consent of UMass Boston except as such information may be subject to disclosure under the Freedom of Information Act (5 U.S.C. § 552), and EPA New England's regulations at 40 C.F.R. Part 2, or as otherwise authorized by law.

VII. INTELLECTUAL PROPERTY

If the parties anticipate that intellectual property may be developed from the activities conducted under this MOU, the parties should execute additional agreements, such as a cooperative research and development agreement under 15 U.S.C. 3510a. At a minimum, rights to intellectual property arising from activities conducted in furtherance of this MOU will be allocated according to law, regulations, policy, and practices governing intellectual property rights at the EPA.

VIII. POINTS OF CONTACT

The following individuals are designated points of contact for the MOU:

U.S. Environmental Protection Agency

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IX. MODIFICATION/DURATION/TERMINATION

This MOU will be effective when signed by all parties and remain in effect for a period of at least 2 years (see section IV ¶2 above). This MOU may be extended or amended at any time by the mutual written consent of the parties. The parties will review this MOU each year to determine whether it should be revised, renewed, or cancelled. This MOU may be terminated by either party at anytime by one party notifying the other party in writing 90 days in advance of the termination date.

X. APPROVAL

University of Massachusetts - Boston



Matthew L. Meyer

Director, Office of Research and Sponsored Programs

12/21/11

Date

U.S. Environmental Protection Agency



H. Curtis Spalding

Regional Administrator

12/21/21

Date