

Ongoing Projects/Water Quality Sampling

Project Lead	Scope/Title	Focus Area	Timeframe	Contact	Weblink	Comments
MyRWA	Monthly water quality monitoring at 13 sites	Mystic Watershed	Continuous since 2000	Mary Beth Dechant	http://www.mysticriver.org/research/index.html#baseline	Volunteer Water Quality Monitoring
MyRWA	Cyanobacteria monitoring	Mystic Watershed	Summer 2008	Mary Beth Dechant		
MyRWA	Shoreline surveys	Mystic Watershed	2005 - 2008 (completed)	Mary Beth Dechant		Funded by MET
MyWRA	Hot spot monitoring	Mystic Watershed	since 2001	Mary Beth Dechant	http://www.mysticriver.org/research/index.html#hotspot	
EPA	Urban River Sampling	Mystic and Urban Rivers	Since 2008	Todd Borci, Tom Faber, Leah Bowe		
EPA	Regional Method and Regional Applied Research Effort	Mystic and Urban Rivers	2009-2010	Todd Borci, Leah Bowe, Tom Faber		
Mass DEP DWM	Year two monitoring - 5yr cycle	Mystic Watershed	2009	Jamie Carr	http://www.mass.gov/dep/water/priorities/wshappr.htm	Monitoring for assessment purposes
MassDEP	Bacteria Source Tracking	NERO including Mystic Watershed	Since 2007	Jenny Birnbaum	http://www.mass.gov/dep/about/region/northeas.htm#bst	
MWRA	Water quality monitoring at 17 locations (bacteria and eutrophication), 20 station visits per year	Mystic River (fresh and marine) and Alewife Brook	Since 1989	Kelly Coughlin	http://www.mwra.state.ma.us/harbor/html/mr_wq.htm	Monitoring for impacts of CSO discharges on receiving waters

Completed Projects/Water Quality Studies

Project Lead	Scope/Title	Focus Area	Timeframe	Contact	Weblink	Comments
MA DMF	River Herring Spawning and Nursery Habitat Assessment	Upper Mystic Lake	2007/2008	Brad Chase		Datafile and report available spring 2009
EPA	Urban Stormwater Monitoring	Mystic Watershed	Summer 2008	Leah Bowe & Todd borci	http://www.epa.gov/region1/mysticriver/pdfs/MysticRiverDataReportSummary2008.pdf	
MyWRA	The Aberjona River: Shoreline Survey Results, Analysis, and Action Plan	Aberjona River	Fall 2006	Mary Beth Dechant	http://www.mysticriver.org/research/Aberjona%20Shoreline%20Survey%20Final.pdf	
MyWRA/Roger Frymire	A Snapshot of the Alewife Watershed, Observation, and Bacterial Sampling Results from Fall 1999	Alewife Brook	Fall 1999	Roger Frymire (rramjet@verizon.net)		
MyWRA/Roger Frymire	Seventh Annual Report on Alewife Subwatershed Water Chestnut Eradication Project	Alewife Brook	May 2007	Roger Frymire (rramjet@verizon.net)		
US Army Corps of Engineers	Malden River Ecosystem Restoration Detailed Project Report & Ecosystem Assessment, Malden, Medford and Everett, MA	Malden River	2007		http://www.nae.usace.army.mil/projects/ma/maldenriver/maldenriver.htm	
MA DEP	Boston Harbor 1999 Water Quality Assessment Report	Mystic & Boston Harbor	1999	Richard McVoy	http://www.mass.gov/dep/water/resources/wqassess.htm	
Somerville/MyWRA EPA EMPACT report	MR Real-Time WQ Monitoring website (not avail fall/winter)	Mystic River	interactive online reporting (2002)		http://www.mysticriveronline.org/	Not currently in operation - need funding to continue
MyWRA	Mystic Action Plan - Prepared for MA EOEA and MA DEP	Mystic Watershed	Fall 2006	Mary Beth Dechant	http://www.mysticriver.org/publications/ActionPlan.html	
USGS	Sediment Quality of Lakes, Rivers, and Estuaries in the Mystic River Basin, Eastern Massachusetts, 2001-03	Mystic Watershed	2001-2003	Breault, R.F., Durant, J.L., and A. Robbat, Jr.	http://pubs.usgs.gov/sir/2005/5191/	Part of Mystic Action Plan

USGS	Water Quality of Selected Rivers in the New England Coastal Basins in Maine, Massachusetts, New Hampshire, and Rhode Island	New England	1998-2000	Campo, K.W., Flanagan, S. M., and Robinson, K.W.	http://pubs.usgs.gov/wri/wri034210/	Includes water-quality monitoring at the Aberjona at Winchester streamgage site
------	---	-------------	-----------	--	---	---

Other Projects/Activities

Project Lead	Scope/Title	Focus Area	Timeframe	Contact	Weblink	Comments
City of Cambridge, MA, DPW	Proposed Concord-Alewife Area Stormwater Management Guidelines	Alewife Brook	2006		http://www.cambridgema.gov/TheWorks/stormwater/pdf/ConcordAlewifeStormwaterManagement.pdf	
DCR	Alewife Reservation & Alewife Brook Master Plan	Alewife Brook	2003	DCR	http://www.mass.gov/dcr/pe/alewife.htm	
Alewife Brook/Little River Stream Team - Friends of Alewife Reservation	Alewife Brook/Little River Shoreline Survey and Action Plan	Alewife Brook/Little River	2000		http://nils.lib.tufts.edu/MRWA/400.05.0010.pdf#xml=http://nils.lib.tufts.edu/cgi-bin/pd	
Matthew G. Heberger	Modeling nonpoint source bacteria	Mystic River	2003		have hard copy from Tufts	
Tufts	Redeveloping the Lower Mystic River: Case Studies and Best Practices	Mystic River - Lower	2007	Rusty Russell	http://ase.tufts.edu/uep/degrees/field_project_reports/2007/Team6_MyRWA_Report.pdf	
Rebecca C. Overacre Tufts Thesis	Effects on Road Salt on Sedimentary Phosphorus Remobilization in an Urban Pond	Spy Pond	2003	Rebecca Overacre		

Durant/Tufts Research

Project Lead	Scope/Title	Focus Area	Timeframe	Contact	Weblink	Comments
John Durant, et al., Tufts University	"Spatial and temporal variation of ammonia in a pond and wetland downstream from a hazardous waste site," <i>Chemosphere</i> , accepted, January, 2007.	Aberjona River	2007	John Durant		
John Durant, et al., Tufts University	"Arsenic in the Aberjona River Watershed: Challenges to River Restoration," Forum: <i>Mystic Watershed Forum</i> , Mystic River Collaborative, Tufts University, 28 April 2006.	Aberjona River	2006	John Durant		
John Durant, et al., Tufts University	"Water Pollution in the Aberjona River: Historical Causes and Challenges for Water Quality Management". Presented at the Massachusetts Environmental History Seminar Series, Boston Historical Society, Boston, MA, December 2003.	Aberjona River	2003	John Durant		
John Durant, et al., Tufts University	"Watershed Management on the Mystic Watershed I: Water Quality History and Challenges for the Future," ASCE Watershed Management Conference, Ft. Collins, CO, June, 2000.	Mystic River	2000	John Durant		
John Durant, et al., Tufts University	"The Aberjona/Mystic River Study: Chemical Transport and Public Health in an Urban Watershed," poster presentation, NIEHS/EPA Superfund Hazardous Substances Basic Research Program Symposium, Chapel Hill, NC, February, 1997.	Mystic River/ Aberjona River	1997	John Durant		
John Durant, et al., Tufts University	"Controls on arsenic speciation and solid-phase partitioning in the sediments of a two-basin lake," <i>Environmental Science & Technology</i> , 2005, 39, 9174-9181.	Spy Pond	2005	John Durant		
John Durant, et al., Tufts University	"Elevated levels of arsenic in the sediments of an urban pond: distribution, sources and water quality impacts", <i>Water Research</i> , 2004, 38, 2989-3000.	Spy Pond	2004	John Durant		
John Durant, et al., Tufts University	Investigation of road salt effects on sediment arsenic release from the sediments of an urban pond. Poster presented at American Geophysical Union Spring 2001 Meeting, Boston, MA H42A-16	Spy Pond	2001	John Durant		

Mystic River Watershed Water Quality Project Summary

Draft 2/23/2009

John Durant, et al., Tufts University	"Characterization and Cycling of Phosphorus and Arsenic in Spy Pond (Arlington, Massachusetts)", Prepared for the Massachusetts Department of Environmental Management, January, 2000.	Spy Pond	2000	John Durant		
John Durant, et al., Tufts University	"Sediment Quality in the Mystic River Watershed above the Amelia Earhart Dam: A Review of Studies from 1982-1999," Department of Civil and Environmental Engineering, Tufts University, 1999.	Spy Pond	1999	John Durant		
John Durant, et al., Tufts University	"Persistence and remobilization of arsenic in Massachusetts (USA) lakes treated with arsenical herbicides", <i>J of Lake & Reservoir Management</i> , 2007, 23, 59-68.		2007	John Durant		
John Durant, et al., Tufts University	"Human History as reflected in sediment contamination," Conference: <i>The Promise and Challenge of Urban Rivers</i> , US EPA, Federal Reserve Bank, Boston, 29 March 2007.		2007	John Durant		
John Durant, et al., Tufts University	Optimal Number and Location of BMPs for Stormwater Management, Proceedings of ASCE World Water and Environmental Resources Congress 2004, Salt Lake City Utah, June 2004.		2004	John Durant		