Charles River Watershed Association

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Testimony of Robert Zimmerman, Jr., Executive Director of the Charles River Watershed Association, on the Environmental Protection Agency's use of *Residual Designation Authority* to address phosphorus pollution in the Charles River

Whenever regulation is written to address newly identified sources of pollution causing serious problems in our environment, those affected by that regulation respond with a predictable list of objections. Prior to this hearing, I've read most of the objections in the press, and I'd like to comment on each of them.

Argument 1 -- The Regulation is based on flawed science: This is generally offered as a first reaction, and is one I've read in numerous press accounts of comments by local officials on this regulation. The science on which EPA's residual designation is based comes from two *total maximum daily load* analyses completed for the Charles River over the last eight years. The first, done for the Charles Lower Basin by Tetra Tech for EPA, was finalized nearly three years ago and concluded that the River suffers from a phosphorus load 54 percent higher than it can handle, and the majority source of that phosphorus is stormwater runoff from pavement and buildings. The second, done for the upper 70 miles of the Charles River by CRWA under contract to the Massachusetts Department of Environmental Protection and closely reviewed by both DEP and EPA, was completed a year ago. That study confirmed the findings of the Lower Basin Study, and went into even more specific detail about the sources of pollution. The study concluded that wastewater treatment plants (17 percent), commercial properties (10 percent), industrial properties (14 percent), and high density residential properties (26 percent), are responsible for 67 percent of the total phosphorus load in the Charles River, even though they occupy only 20 percent of the land in the 308 square miles of the Charles River Watershed. Of these facilities and properties, only wastewater treatment plants are currently regulated by EPA; industrial, commercial, and high density residential properties responsible for 50 percent of the phosphorus pollution load are currently unregulated. Left to continue to pollute, these properties will be responsible for the death of the Charles River. When a river is eutrophic, as the Charles River is, it is dying.

These two studies are among the best of their kind undertaken in the nation.

Argument 2 -- The Regulation is an Unfunded Federal Mandate: Though generally a second reaction to new regulation, this argument has more staying power as communities and property owners begin to assess the costs of regulatory compliance, and particularly so when the cost bases cited are wildly inaccurate and expensive. Fast on the heels of the unfunded mandate argument is the notion that if the EPA wants to clean up source pollution, EPA should pay for it. These are exactly the same arguments industrial polluters made in the 1970s when discharge from their properties and processes first came under the purview of EPA with the passage of the Clean Water Act. These days, I don't think anyone would find the discharge of toxics and raw waste to our surface waters acceptable under any circumstances.

The problem with the unfunded mandate argument is that EPA, under the Clean Water Act, was given responsibility for identifying and regulating sources of pollution, which is exactly what the Agency is doing in this instance. The act further requires that those who are responsible for the sources of pollution be held accountable. I would add that in our current political climate, the notion that American taxpayers should underwrite the retrofits necessary to clean up polluted stormwater that flows off individual private properties is simply without merit.

That said, the Milford/Bellingham/Franklin regulation is a *pilot* program. CRWA argued for a pilot residual designation program exactly because the regulation is new, and effort must be made to carefully and creatively work through its application in a relatively small region to understand its complexities and implications, and drive down its costs. It is quite likely that this regulatory tool will be used across the nation to address major sources of pollutants that have hitherto been categorized as "nonpoint." It is therefore in the nation's interest to help EPA and these pilot communities do the best, most creative job possible in applying the regulation in the most effective and least cost manner.

To that end, CRWA has been lobbying to help EPA and the communities find $5.5 million in the federal budget to undertake and work through the regulatory program. We invite each of the communities and all interested parties to join us in this effort.

Argument 3 -- The stormwater retrofits required will not meet the regulated reductions mandated: Studies on green infrastructure stormwater retrofits have been undertaken in cities and at universities across the nation. One of the best sources in the nation of information on the effectiveness of stormwater retrofits is at the University of New Hampshire in Durham, where stormwater installations are built and carefully monitored for their effectiveness in our New England climate. EPA has gone into great detail to specify how the regulations are to be met, having spent over two years analyzing the UNH data, developing models to test cost and feasibility, and preparing easy to use materials for property owners, all available on EPA's website. The retrofit technologies currently available will meet the regulated reductions.

Argument 4 -- The recession makes it impossible for property owners and communities to comply. These regulations need to be delayed until the economy recovers: When it

comes to environmental regulation, history teaches us that there is never a "good" time to address and reduce the pollution we've created. Boom or bust, we never seem to be able to afford the kinds of changes necessary to reduce and eliminate pollution.

Part of this reaction is a function of the costs of the technologies we traditionally build and accept as legitimate expenses -- stormdrain systems and large centralized wastewater treatment systems. For fiscal 2010, Massachusetts, through its State Revolving Fund, is releasing over $94 million of a total of $350 million released for wastewater and stormwater infrastructure construction to address combined sewer overflows, sanitary sewer overflows, and extend and replace existing stormdrains. The kind of green infrastructure required to meet EPA's new regulation would replace, to a very large extent, exactly the sort of gray pipe infrastructure communities in Massachusetts are borrowing $94 million this year alone to fix and replace. The green infrastructure required to meet this regulation, in almost all instances, could and should be used instead of traditional gray pipes, and would be much cheaper, far more flexible, and would actually significantly reduce pollution rather than act as its source.

It's also worth noting that delay is already built into EPA's regulation. Property owners are not required to actually begin construction on stormwater retrofits for at least four years.

Argument 5 -- The cost of compliance is simply too high: For four years, recognizing that costs would drive compliance to this regulation, CRWA has been working hard to understand the costs. To that end, we have completed a study of a square mile of Franklin that concluded that compliance costs would vary between $8,000 and $20,000 per acre, as opposed to the $100,000 to $250,000 per acre commonly cited by opponents to the regulation. CRWA has just applied for funding to start a second analysis in Bellingham. This summer, we are building four demonstration sites in and around Boston so that we can better analyze sites, costs, and technologies. We had a ribbon cutting ceremony on June 21 at such a site on Everett Street in Brighton.

We are also developing internet-based software that will allow property owners to determine the likely soils on their properties, the likely stormwater retrofits best suited to their properties, and their associated costs. We know that reducing the reliance of property owners on lawyers and engineers to initially understand the regulation and its requirements, while providing them detailed information on what will likely work on their sites will dramatically reduce costs to property owners. We also know that in instances of problematic properties built over rock ledge or dense clays and glacial till that an on-line based trading system that allows owners to "trade" with property owners whose soils are more capable of infiltrating water, ultimately getting more water in the ground, will reduce costs for all involved. That software is under development at CRWA. It would also allow for cross-trades between municipalities and property owners. These systems need to be created and tested in a real-world situation, which is exactly why this pilot program in the Upper Charles is essential.

To accomplish all this, we need federal funding to help us build the software and systems that will make this regulation work, and we could certainly use community help in lobbying Congress to obtain those funds.

And as this regulation is successful? Water quality in the Charles River will be dramatically improved, as will river flow. We'll reduce flooding, improve resilience to drought, reduce energy demand used to capture and clean stormwater in our gray pipe systems, and improve air quality by introducing trees and plant life that sequester carbon dioxide in our cities and towns. By increasing shade cover over pavement, we'll reduce energy demand for air conditioning. The water that evaporates from the soils introduced will also help cool our cities and towns. We'll reduce, even eliminate, combined sewer overflows and sanitary sewer overflows at fractions of their traditional costs. We'll introduce green space to areas where none currently exists. Our cities and towns will be more beautiful and more inviting.

All of this will be done. We're in a period of environmental transition and transformation, and transformation of this magnitude is always the center of controversy. Change is never easy, but this change will happen, and not so many years from now we'll wonder why we ever thought it was controversial.