December 30, 2010

Senator James Eldridge  
Chair, Water Infrastructure Finance Commission  
State House Room 213A  
Boston, MA 02133

Representative Carolyn Dykema  
House appointee, Water Infrastructure Finance Commission  
State House Room 473F  
Boston, MA 02133

Re: Recommendations to the Water Infrastructure Finance Commission

Dear Chairman Eldridge and Representative Dykema;

On behalf of Mass Audubon, I am writing to submit recommendations for the long-term Massachusetts water infrastructure finance plan currently being developed by the Water Infrastructure Finance Commission. This issue is a timely one, as the US Environmental Protection Agency (EPA) has identified the need for hundreds of billions of dollars for maintenance, replacement, and operation of water infrastructure nationwide through 2019. The Commonwealth of Massachusetts also recognized the gap between existing funding and future needs, and established the Water Infrastructure Finance Commission to develop a plan to address this gap. This plan is very important to the economic and environmental health of Massachusetts, and we thank the Commission for holding hearings and soliciting input as it develops the plan.

The EPA has developed a four pronged approach to meet water infrastructure needs:
- Improved Management of Water and Wastewater Utilities,
- Full Cost Pricing in Rates,
- Water Efficiency, and
- Applying Watershed Based Approaches to Resource Protection.

These measures are appropriate and can be applied at the state as well as federal level. In addition, Mass Audubon recommends that the Commission adopt new and innovative approaches that better integrate water management. A shift away from ever larger and more complex engineered systems and toward an emphasis on protecting natural Green Infrastructure and maximizing the ability of the environment to provide water management services can have many benefits. At the same time, we recognize that funding will continue to be needed to maintain and improve engineered water management systems that are necessary components of the Commonwealth’s core infrastructure.

Massachusetts has long been a leader in environmental protection and management, and has led the nation with groundbreaking laws such as the Wetlands Protection Act and Water Management Act. Presently the Executive Office of Energy and Environmental Affairs is engaged in a Sustainable Water Management Initiative that could help identify further improvements for managing water resources in the commonwealth.
All water is part of a single hydrologic cycle, yet it has traditionally been managed in separate “silos” i.e. drinking water, wastewater, and stormwater. In reality, each of these categories of water affects the quality and quantity of the others, and ultimately the health of the aquatic environment and the human economy that depends on clean water every day.

Water infrastructure has been built primarily around centralized, engineered systems. While this design has been beneficial in many ways (e.g. the Quabbin/Wachusett MWRA system) it also has inherent costs and limitations. Centralized water systems remove water from source areas and this can reduce recharge and stream flows if the wastewater is discharged to another basin or the ocean. Municipal and other interconnected stormwater systems tend to concentrate stormwater flows, contributing to flooding, loss of infiltration and recharge, and pollution. The costs of maintaining these systems and upgrading them to meet water quality standards are becoming more and more challenging. There is a growing recognition that new approaches are needed. We suggest that the Commission’s plan include the following components:

- Integrate water management: clean and recharge stormwater and wastewater within the source watershed as much as possible.
- Protect Green Infrastructure including wetlands, floodplains, and recharge areas to maximize the free services these resources provide.
- Provide new sources of funding to maintain and upgrade water infrastructure, such as local or regional enterprise funds including water banking and stormwater utilities.
- Implement Full Cost Pricing and strong measures to promote efficient water use (e.g. strengthen plumbing codes, subsidize onsite storage of rooftop water in cisterns for irrigation).
- Channel existing funding sources such as the State Revolving Fund to support decentralized approaches. For example, if a community wants to build a small wastewater facility to serve a planned high-density mixed use district, do not require that it also sewer areas surrounding that district in order to qualify for funding. Target grants and loans to projects that will promote Smart Growth.
- Provide technical assistance to municipalities and developers to implement Low Impact Development (LID) on both new development and retrofits. Document costs savings of these practices and promote that information.
- Promote the link between water efficiency and energy efficiency, and provide grants and loans that enable municipalities and businesses to implement technologies that achieve efficiencies in both areas.
- Increase state funding, and enable municipalities to bond, for removal of obsolete dams that are no longer serving a useful purpose and are degrading water quality, blocking fish passage, and creating hazards to people and property.
- Apply updated precipitation data to the design of new stormwater management systems, in recognition of the increase in high intensity storm events linked to climate change.
- For all state-funded transportation improvement projects, construct or retrofit stream crossings to enable passage of fish and other aquatic life and improve stormwater treatment through vegetative and soil filtration wherever feasible.

A more focused use of existing funding and application of new financing techniques such as water banking and stormwater utilities are needed to support a transition toward more decentralized, integrated approaches to water management that keep water local and clean. We will need to work with nature through LID, water efficiency, and good land management practices to maximize ecosystem services and minimize hard infrastructure costs. Regardless of progress in that direction, centralized water, sewer, and stormwater systems will remain vital parts of the Commonwealth’s infrastructure for decades to come. The plan needs to provide for the upkeep of these systems to the extent transitions to more decentralized approaches are impracticable or will take long periods of time to implement.

Thank you for your attention.

Sincerely,
John J. Clarke
Director of Public Policy & Government Relations