

**CAC Recommendations for the Restoration of the Lower Neponset:
Actions at the Tileston & Hollingsworth (T&H)
and Baker Dams
Final
April 15, 2009**

After extensive deliberation, the CAC recommends the following actions on the Lower Neponset River. These actions should be considered in totality in order to achieve the objectives noted below. The CAC is recommending these actions in order to achieve the following important environmental and cultural goals. Different members place differing levels of importance on these goals, but all recognize that all are important elements of a final approach to address multiple and diverse interests.

- Provide for cleanup of contamination in the existing impoundments from past industrial activities, primarily but not solely related to PCBs, to protect human health, and to improve the ecological health of the river and the estuary.
- Restore river function including fish passage for river herring and shad, protection of the rainbow smelt spawning habitat below the Baker Dam, and improve general ecological functions such as riverbank and water's edge habitat.
- Recognize and enhance the experience of, and provide education about, the Native American, colonial, industrial, and natural history of the river.
- Increase recreation on and alongside the river through greater water passage via canoe or kayak.

The CAC recommends removal of the T&H Dam. The CAC recommends the maintenance of key historic and structural elements of the Baker Dam on the Neponset River combined with partial removal to allow construction of a "nature-like" fishway in the impoundment, as further described below.

The CAC also recommends that the liaison agencies reconvene the CAC in no more than 12 months at least once (and not less than once yearly to report progress until the project is completed).

Contingent Actions

These recommendations, for both the Baker and T&H Dams, are contingent on undertaking the following actions and resolving the following issues.

- The project leads working closely with abutters and stakeholders to ensure effective implementation (*see more detail below*).

- In close conjunction with the Department of Environmental Protection (DEP), the oversight agency regarding remediation, the project will be designed and implemented so as to: 1) ensure a reduction in existing human health risk levels and prevent any potential increased human health risk associated with the ongoing redistribution of contaminants to areas downstream; and, 2) reduce existing ecological risks and prevent worsening of downstream ecological risk due to ongoing export of contaminants.
- Cleanup and restoration should proceed as soon as possible, but the project proponent, DEP, and upstream land owners such as Department of Conservation and Recreation (DCR) must coordinate so that any longer-term cleanup actions upstream, such as at the Canton Airport or Mother Brook, will not significantly and adversely impact these recommended actions in the Lower Neponset.
- An effective health and safety plan for remediation, including when and how contaminated sediments will be transported off site. The CAC encourages the responsible agencies to consider off-site removal via train versus trucks to minimize truck traffic in the neighborhoods.
- A letter of support outlining any conditions from DCR to the Department of Fish and Game (DF&G) to enable the project to move forward with design and permitting.
- The order of remediation and dam removal/alteration will depend on funding opportunities, remediation considerations, and other factors. The CAC cannot speak to which action occurs first, second, or, simultaneously. However, the CAC notes that this is a recommendation for action at both dams and these recommendations must be considered *in their totality and are not separable*.
- Naturalizing the riverbank to the extent possible for fish passage, aesthetics, and habitat as part of the overall project.
- Sufficient funding for final design and construction.

T&H Dam

Full removal of the T&H dam following remediation of the contaminated sediments in the impoundment area will provide numerous benefits as noted above. Though the primary concern and interest of the CAC is the restoration of the Lower Neponset River, the CAC recognizes that the DCR retains the full right and responsibility to operate the Mother Brook diversion into the Neponset from the Charles River as needed to reduce and prevent flooding in the lower Charles River basin. The CAC desires and intends that these efforts do not overshadow the efforts to restore the Lower Neponset River. The CAC notes, in addition, that during the final design for the T&H removal, the project proponent needs to ensure that:

- The project maintains or improves flood conveyance capacity in the Neponset to the extent it is necessary to facilitate flood management activities on the Charles River.
- The project adequately addresses the potential for erosion and scour in the former T&H impoundment that may be caused by increased water level variability post dam removal and the existing high flows associated with diversion of floodwater from the Charles to the Neponset via Mother Brook.

Baker Dam

Maintenance, interpretation and (where appropriate) enhancement of key historic and aesthetic elements of the Baker Dam combined with partial removal of the dam to allow construction of a “nature-like” fishway in the pond will provide numerous benefits as noted above. Preliminary conceptual drawings of the proposal are attached. Given that this approach is new, innovative, and conceptual, the CAC recommends that:

- The project proponent should create and keep actively informed a small design advisory committee comprised of the dam owner, interested abutters, a river restoration advocate, and appropriate agencies, including but not limited to the Massachusetts Historical Commission (MHC), the Department of Fish and Game (DFG), the Division of Marine Fisheries (DMF), the Department of Conservation and Recreation (DCR), and the Department of Environmental Protection (DEP).

Because of the innovative nature of this conceptual design, the CAC notes that the final design must address the following considerations in order to meet multiple objectives that include providing effective fish passage and conserving the historic and aesthetic qualities of the dam and impoundment. These final design considerations are as summarized below.

- Determining the width of the engineered channel, i.e. how much of the existing dam gets removed. In general, it is expected that less than half the width of the current dam and no less than one-third would be removed. Something approaching a 60% remaining and 40% removed would be preferred.
- Determining the remaining height of the dam. Practical considerations suggest the dam will need to be maintained at the concrete crest. The goal is to preserve the appearance of the current impoundment as a pond environment. The CAC recognizes that the height of the pool may need to be manipulated to ensure effective fish passage during key seasonal periods.
- Establishing the length of the engineered channel, i.e. how far upstream it should extend.
- The CAC recognizes that the three design considerations above (i.e., width, height, and length) and their interaction are unknown at this time. The CAC


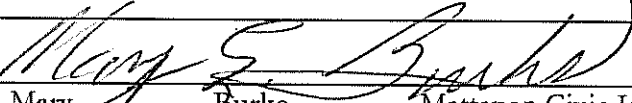
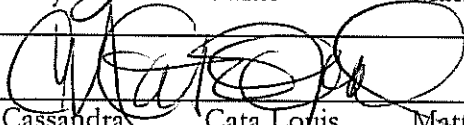
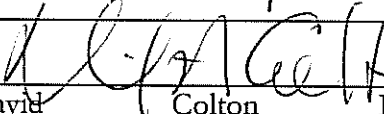
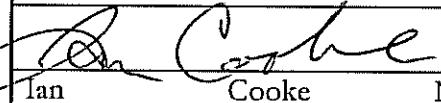
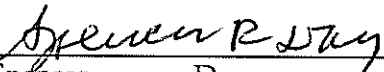
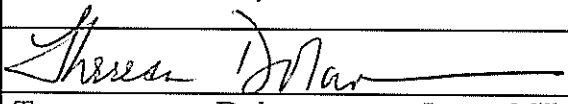

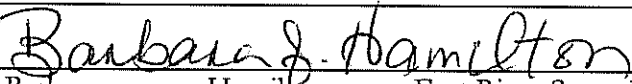

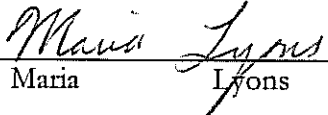
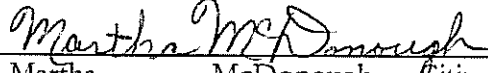
wants to ensure that the above considerations, as suggested together, do not over-constrain the goal of fish passage. If they do, the CAC must reconvene to reevaluate the project in light of that new information.

- Preserving the visual and audible qualities of falling water.
- Determining which side of the river the channel is located. The side selected ought to be determined by taking into account maximizing efficacy for fish passage, and structural and maintenance considerations. If feasible, appropriately managed public access is desirable, including portage, around the fish channel.
- Allowing for adaptive management of water velocities and water depths in the engineered channel and impoundment to ensure effectiveness of fish passage, recreational use and aesthetics across various seasons.
- To the extent possible, reducing the flood hazard classification of the dam and the level of maintenance and operation burden on DCR or other agency.
- Addressing the management of any “new land” that may (or may not) be created between the landward side of the nature-like channel and the existing riverbank.

Determination of Infeasibility



Should the final engineering/design review determine that this approach cannot meet the CAC’s objective as outlined above, the project proponents should reconvene stakeholders from the CAC (i.e., similar groups and interests represented on the CAC, if individuals are not available) to consider additional alternatives.

Signature Page – Lower Neponset River Citizens Advisory Committee Recommendations

		
Barbara	Baxter	Hyde Park Neighborhood Association
		
Mary	Burke	Mattapan Civic Improvement Association
		
Cassandra	Cata-Louis	Mattapan Cultural Arts Development
		
David	Colton	Baker Square Condo Association
		
Ian	Cooke	Neponset River Watershed Association
		
Spencer	Day	Milton Yacht Club
		
Terry	Dolan	Lower Mills Civic Association
		
Rosanne	Foley	Dorchester Environmental Health Coalition and the Dorchester Historical Society
		
Barbara	Hamilton	East River Street Neighborhood Association
		
James	Keyes	Milton Hill Neighborhood Association
		
Maria	Lyons	Port Norfolk Civic Association
		
Martha	McDonough	Citizens for the Preservation of Readville

<i>Maura O'Gara</i>		
Maura	O'Gara	Quincy Environmental Network
<i>Richard O'Mara</i>		
Richard	O'Mara	Lower Mills Merchants Association
<i>Patrick Paquette</i>		
Patrick	Paquette	MA Striped Bass Association
<i>William Prodouz</i>		
William	Prodouz	MA Striped Bass Association
<i>Michelle Scott</i>		
Michelle	Scott	Mattapan Community Development Corporation
<i>Coll Solomon</i>		
Gill	Solomon	Massachuset- Ponkapoag Tribal Council
<i>Ellie Spring</i>		
Ellie	Spring	Cedar Grove Civic Association
<i>Hugh Stringer</i>		
Hugh	Stringer	Columbine Cliffs Neighborhood Association
<i>Bob Vance</i>		
Bob	Vance	Fairmount Hill Neighborhood Association
<i>See attached</i>		
Stephen	White	Port Norfolk Yacht Club

William O'Keefe Ward 13

Maura	O'Gara	Quincy Environmental Network
Richard	O'Mara	Lower Mills Merchants Association
Patrick	Paquette	MA Striped Bass Association
William	Prodouz	MA Striped Bass Association
Michelle	Scott	Mattapan Community Development Corporation
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