



Charles River Watershed Association

Via Certified Mail

September 8, 2011

MassDEP Central Regional Office
627 Main Street
Worcester, Massachusetts 01608
Attn: Wetlands Program

***Re: Request for Superseding Order, Medfield State Hospital, 45 Hospital Road,
Medfield, MA, MassDEP File # 214-0580***

Dear Sir or Madam:

On behalf of the Charles River Watershed Association, Inc. (CRWA) and The Trustees of Reservations (TTOR), I am writing to request that MassDEP review the Medfield Conservation Commission's Order of Conditions (OOC) and issue a Superseding Order of Denial in the above-referenced matter. I am enclosing a copy of the Fee Transmittal Form and check. A copy of the OOC, dated August 26, 2011, is attached hereto.

TTOR is an abutting landowner

Rocky Narrows Reservation in Sherborn, MA, a 249-acre reservation that includes 21 acres on the Charles River, is owned by TTOR. Rocky Narrows Reservation is directly across the Charles River from land under water, bank, riverfront area and bordering land subject to flooding, in which work was authorized in the OOC.¹ Pursuant to the regulations at 310 CMR 10.04 "Owner of Land Abutting the Activity" is defined as "the owner of land sharing a common boundary or corner with the site of the proposed activity in any direction, including land located directly across a . . . river . . ." Accordingly, TTOR is an abutting landowner and is entitled to appeal the OOC and to request MassDEP to act. 310 CMR 10.05(7)(a)4.

TTOR is a non-profit conservation organization that works to protect natural and cultural landscapes for public use and enjoyment. It values the health of the Charles River, its water quality, fisheries, wildlife, avian, wetland and aquatic habitat, and its natural resources for all of their uses, including recreational opportunities and scenic values.

CRWA is an aggrieved person

CRWA is a non-profit environmental organization incorporated in Massachusetts in 1965 with a principal place of business at 190 Park Road, Weston, MA. CRWA's mission is to protect the health, beauty, enjoyment and public accessibility of the Charles River and its watershed. CRWA's members are concerned about the welfare of the Charles River, its natural resources and its contributing watershed. Its members value the river's water quality and quantity, fisheries, wildlife, avian, wetland and aquatic habitat, and its natural resources, in addition to its

¹ These resource areas will be referred to collectively as "the work area."

recreational opportunities and scenic values. Its members include individuals and families, who are fishermen, canoeists, kayakers, artists, scientists, and educators, and businesses. CRWA's members use the river, its tributaries and banks, for fishing, canoeing, kayaking, hiking, bird watching, photography, passive recreation and education.

CRWA is an aggrieved person because the work allowed under the OOC will harm the river and the interests protected under the Wetlands Protection Act, G.L. c. 131, § 40 (the Act), and the regulations at 310 CMR 10.00 *et seq.* (regulations). The use and enjoyment of the river and its resources by its members will be significantly impaired by the Division of Capital Asset Management's (DCAM) work approved in the OOC. The Charles River's environmental values are harmed by the OOC and CRWA's members will suffer great harm to their conservational and recreational interests from the work. The work as approved in the OOC will prevent CRWA from fulfilling its corporate mission.

Superseding Order

The Commission found that all of the areas of the proposed work are significant to the protection of the interests identified in the Act.

MassDEP should issue a superseding order denying the work because:

The Commission erred in issuing an OOC for the proposed work. DCAM failed to demonstrate that the project complies with the Act and its regulations and the proposed work and the OOC issued by the Commission in fact fails to comply with the Act and its regulations because:

1. The work as approved in the OOC fails to meet the performance standards for resource areas. 310 CMR 10.05(6)(b), (k), 10.54(4), 10.56(4), 10.57(4), 10.58(4).
2. The work will have significant adverse impacts on the riverfront area. G.L. c. 131, § 40; 310 CMR 10.58(4)(d).
3. DCAM failed to prove there are no practicable and substantially equivalent economic alternatives with less adverse impacts on the interests protected by the Act. G.L. c. 131, § 40; 10.58(4)(c).
4. The information submitted by DCAM was insufficient to describe the work or the effect of the work on the interests identified in the Act. 310 CMR 10.05(6)(c).
5. The OOC improperly allows bank to be filled for the attenuation of pollutants in stormwater discharges. 310 CMR 10.05(k).
6. DCAM failed to develop an adequate plan to control construction related impacts during construction and land disturbance activities. 310 CMR 10.05(k)(8).

Discussion

This is a very risky construction project involving significant bank alteration, dredging and work below mean annual high water. There is high risk of erosion, with contaminant migration into the river during construction activities and post- construction. There is a significant risk of harm to wetland resources, which the existing plan does not adequately protect. The methods and techniques proposed are inappropriate here given the site's environmental sensitivity and

location along the Charles River.² Developing the most effective way to restore the site with the least environmental harm and risk requires careful study and planning, which has yet to be completed. DCAM has not developed an adequate plan to control construction related impacts during construction and land disturbance activities.

Although the serious degradation of the site's wetland resources is due solely to activities at the state-owned hospital, the Commonwealth is not proposing to restore these resources.³ We believe a private owner would be required to do so, and given that 94 acres of the Hospital site will be sold to a developer, restoration is financially possible and should be required here.

According to the OOC, based on representations by the Applicant that an Immediate Response Action (IRA) had to be accomplished within the "current Charles River low-water period," the Commission "did not require consideration of alternatives that could not be completed within the time limits." We disagree with the extent (expanded scope) of the IRA, which has grown from containing a discrete area of contaminated river sediments to undercutting the bank and dredging, and a partial cap over the 3.2-acre C&D dump anchored by 200 plus feet of riprap down to low water.⁴ We also disagree with the conclusion that the actions being proposed by DCAM, and only those actions, could be accomplished in their self-selected timeframe.⁵

A. AquaBlok

It is clear that DCAM intended the use of AquaBlok to be its permanent solution for the contaminated river sediments, until it was informed by MassDEP that this was not Massachusetts Contingency Plan (MCP)-compliant. Therefore, it did not pursue removal via dredging as an option, nor seek permitting for this. It now claims it has to go forward with the AquaBlok as a temporary measure, notwithstanding the far better of solution of removing the sediments.

The oily sheen observed when Weston & Sampson (W&S, or DCAM's consultant) was removing its equipment from the river and sampling showed an oily layer underneath a layer of coarse sand, silt and gravel river sediments, this constitutes the only evidence of which we are aware for reporting a condition of substantial release migration (SRM). According to the hospital's power plant operator in recent interview with the Medfield Press, July 22, 2011, a likely source of this oily sediment is a spill at the power plant in 1978 which migrated to the river. DCAM's consultant agreed this was "possible," stating "preliminary results showed that the petroleum is from unknown hydrocarbons. That happens because it is so old and degraded." *Id.* We are not aware of any other reports of an oily sheen on the Charles in this area since that time.

² Due to the "potential environmental impacts of the project, and the unique nature of the project site," Secretary Bowles determined that the entire project requires an Environmental Impact Report. April 2, 2010, EENF Certificate. Based on the gains made in restoring the Charles River, it is one of three finalists for this year's International Riverprize to be awarded by the International RiverFoundation.

³ DCAM has committed to removal of the contaminated river sediments in the future.

⁴ We note that to date MassDEP has not yet issued an approval of the IRA. Notwithstanding the statement in the Commission's findings of fact, this work does not constitute an emergency and has not in fact been treated as such under the procedures established for emergency certification under the Act and its regulations.

⁵ It does not appear likely, given DCAM's failure to file for a chapter 91 license, the 21-day wait period required following the yet-to-be issued section 401 certificate, and this request to MassDEP for a superseding order, that the work will take place this fall. River flow levels rapidly increase beginning in early October and DCAM is not intending to dewater. A condition of the Secretary's Phase I waiver, is that "work will be conducted during seasonal low water levels in the Charles River" and if dewatering is required it must comply with the MCP. DCAM did not provide dewatering plans in the NOI.

The dredging and re-grading of resource areas, the impervious partial cap over the dump, placement of 3-feet of soil on top of it and plantings may make it impossible to vacuum dredge the sediments from the land without damaging the construction and demolition debris (C&D) cap, and in any event would require the bank and riverfront area to be altered again and then restored—a waste of taxpayer money in our opinion, that also carries with it significant adverse impacts to the interests protected by the Act.

The AquaBlok may also become dislodged through ice or storm debris in the river, by upwelling, or by persons recreating on the river. No repair of the AquaBlok, which will be exposed during low flow summer months, appears possible. Removal could necessitate mechanical dredging in the river due to the material's highly cohesive nature, instead of vacuum dredging from the shore. W&S agrees that any sand placed over the AquaBlok (30 cu.yds proposed) eventually will be washed downstream. Alterations of the river bottom and bank geometry caused by the proposed placement of riprap in concert with the AquaBlok are likely to cause hydrologic changes in this area, including an increase in sediment transport and scour. The AquaBlok will impair the carrying capacity within the defined channel, impact surface water quality, the capacity to provide breeding habitat for fish and aquatic organisms, escape cover and food for fisheries, and the capacity to provide important wildlife habitat functions.

B. Bank

DCAM is proposing to dredge 1,420 CY and then fill with 650 CY, for a net dredge of 770 CY. The bank will be partially excavated to allow placement of 3 feet of soil over the flexible membrane liner (FML) on the banks and C&D area. Bank re-grading will need to be done in the dry. Extensive use of riprap (650 CY between high and low water) is planned. Armoring the bank with riprap is not a measure or material that can accurately be characterized as “restorative,” even if plantings are allowed to grow up through it.⁶ DCAM states that riprap will cover approximately 200 LF of bank (although the revised plan submitted to the Commission showed a length closer to 300 LF).

Due to the elevations, riprap will be partially exposed for much of the year. Riprap is not necessary to protect the bank from erosion at this location; many more natural bio-restorative techniques would stabilize and protect the bank while providing habitat, cover and food, improved water quality and bank stability. The purpose of the riprap is to anchor the FML cover over the C&D area. If C&D debris was removed from the riverfront area (see discussion below), a cover over the C&D area would not need to extend below the bank to land under water, thereby allowing a far more natural bank restoration using bioengineering techniques, and the elimination of riprap.

We note that the destruction of the bank in the floodplain was caused by 50 years of dumping of materials from the hospital. The state, like any other landowner, has an obligation to restore the bank. We disagree with the premise by DCAM's consultant at the stakeholder meeting that the bank is not currently productive, and therefore, it is not necessary to restore it. In sum, installing riprap and the FML to low water will impair the carrying capacity within the defined channel, impact ground and surface water quality, impair the physical stability of the bank, the capacity to

⁶ Even in emergency situations, which this is not, “[v]ehicles and heavy equipment shall not be operated on the banks of water-bodies . . . Rip-rap shall not be used unless MassDEP and the conservation commission determine that other means of stabilization are not practicable. *C.f.*, 310 CMR 10.06(6)(g)(4)(g) (Agricultural Emergencies).

provide breeding habitat, escape cover and food for fisheries, and the capacity to provide important wildlife habitat functions.

C. Riverfront Area

Work in the Riverfront Area cannot have a “significant adverse impact on the riverfront area” and there must be “no practicable and substantially equivalent economic alternative to the proposed project with less adverse impacts.” G.L. c. 131, § 40. An economic alternatives analysis was not conducted.⁷ In addition, there was no analysis of alternatives such as removing varying volumes of hazardous material from the riverfront area. Nor was the regulatory framework and cost of potential encapsulation in on-site uplands of contaminated material from the riverfront area, examined. There are clearly a number of alternatives to the proposed partial cap, with differing environmental and economic impacts. These alternatives need to be examined thoroughly, and the best alternative selected, prior to work proceeding in the Riverfront Area.

The C&D area sits on top of a potentially productive aquifer and part of it is within the Zone II of the Town’s public water supply well. Under DCAM’s proposed work, hazardous material will remain in the Zone II, as well as in the 100-year flood plain; 1-3 feet of hazardous material will remain sitting below the water table in the C&D area. The dump has been characterized by one licensed site professional as an unlined hazardous waste landfill. Groundwater from the C&D area flows to the river. Flooding in this area could also cause significant exposure and/or migration of hazardous or toxic materials.

The proposed partial cap will not eliminate migration of contaminated groundwater to the river, nor will it protect groundwater supplies. The potential impacts to the capped and uncapped areas during a significant flood event have not been documented. The alteration of the Riverfront Area by the proposed project will not eliminate these serious risks and pollution problems and cause significant adverse impacts.

There is no doubt that all of the areas of the proposed work are significant to the protection of the interests identified in the Act. There is also no doubt that the site contamination is a significant environmental and public health threat and should be remedied. However, the development of a project to restore the site must be in accordance with the Act and regulations, which this proposed project is not. MassDEP should issue a superseding order denying the work.

Sincerely,

Margaret Van Deusen
Deputy Director and General Counsel

Enc.

cc: (via certified mail)
Leslee Willitts, Medfield Conservation Commission
John O’Donnell, DCAM

⁷ DCAM prepared only an “Initial Remedial Alternatives-Technology Screening,” which looked at full excavation of the C&D area and offsite disposal, assigning it a cost of “high.”