



Charles River Watershed Association

Stephen R. Pritchard, Secretary
Executive Office of Environmental Affairs
MEPA Unit
251 Causeway Street, Suite 900
Boston, MA 02114

Attn: Deirdre Buckley

Re: Environmental Notification Form (ENF), Storrow Drive Tunnel
Reconstruction Project, EOE # 13777

Dear Secretary Pritchard:

Charles River Watershed Association has reviewed the ENF for the above referenced project and we provide these comments for your consideration through the MEPA program.

Our comments are focused on environmental issues that have been addressed in only a broad sense in the ENF, but are of significant importance to Executive Office of Environmental Affairs and the neighboring communities around the proposed project: its impacts on the Esplanade and the Charles River; and ground and surface water management issues.

Impacts to the Esplanade and the Charles River

While the ENF discusses the possible impacts on the Esplanade both during construction and after, there is not much detail on how the Charles River might be impacted. In addition to the requirement of a stormwater management plan for the project, the proponent should be required to carry out water quality impact assessments and incorporate appropriate BMP's to improve the quality of the run-off entering the Charles River. Also not only do the impacts to the parkway system need to be mitigated but every effort should be made to invest in improving the maintenance of the system all along Storrow Drive.

While the project may or may not increase vehicular traffic in the area, the number of pedestrians using the parklands will hopefully increase. This park system is already heavily used, and is in need of significant capital and operations improvements. The EIR should include an analysis of project impacts on the Esplanade, including parkways, and a proposed mitigation plan to ensure that the park system does not deteriorate further with increasing use.

Stormwater Management

Currently stormwater drainage from the site flows untreated into the Charles River, contributing to its impairment. Restoration of the River is a priority for many stakeholders, including the Executive Office of Environmental Affairs, and major efforts at the local, state and federal level are underway to get the Charles to a swimmable standard all year round.

The successful restoration of the River cannot be done solely with end-of-pipe approaches, however. Source controls are needed throughout the watershed, and redevelopment provides the best opportunity to implement better stormwater management. While the ENF claims that the project will result in water quality improvements to stormwater, it provides little analysis of stormwater volumes and quality; presents no alternatives analysis for approaches to managing stormwater runoff; and doesn't discuss any of the available technologies and techniques for urban stormwater management. The EIR should include more details on the proposed stormwater management system (with oil/gas separators and sedimentation traps) to treat stormwater that will be discharged into the groundwater infiltration chambers.

We strongly urge you to require an assessment of the opportunities for improved stormwater management, with an emphasis on Low Impact Development best management practices as they are being incorporated in highway design, green infrastructure technologies, and other methods to improve water quality and, especially important, reduce the volume of runoff to the river. Specifically, we suggest:

- 1 Detailed information about the design of the proposed stormwater management infrastructure including the location and design of drains, catch basins, water quality structures, and infiltration structures;
- 2 Detailed information about any surface stormwater management features such as stormwater swales, rain gardens, permeable pavement or vegetated storage areas;
- 3 An assessment of the opportunities to reduce even further the peak flows and volume of stormwater runoff, including estimates of the impacts in a one-year storm;
- 4 An assessment of how the site would meet DEP's stormwater management policy in its entirety, not just "to the maximum extent practicable;"
- 5 A plan to minimize the primary pollutants of concern for the Charles River, sediments and nutrients;
- 6 A maintenance plan for the stormwater management plan.

Groundwater

We are pleased that the ENF has made a definite commitment to ensure that groundwater levels will be maintained during construction and that the final design will also incorporate a groundwater recharge system that will maintain groundwater levels above the current levels. The location of this project in an area of historic fill, and the ongoing problems throughout many areas of the City with groundwater levels, make it all the more important

that this aspect of the project be designed with the utmost care and in anticipation of any potential impacts.

The EIR should thus include a thorough analysis of the potential impacts to groundwater, both during and after construction of this project. This effort should be coordinated closely with the Boston Groundwater Trust to ensure that there are no alterations to groundwater levels as a result of the project. The site for the project is within the City's "Groundwater Overlay District," and groundwater remains a potential source of base flows to the Charles River, so any changes to groundwater patterns in the area need careful review and planning. Investigations should include potential seasonal changes in groundwater levels, as well as potential effects on groundwater flow. This area has already witnessed altered groundwater flow patterns due to construction of sub-surface projects such as tunnels, underpasses and even some building foundations, resulting over time in changes to ambient groundwater levels. However, groundwater flows are extremely slow so alterations may continue to occur over several years.

If the analysis shows there is potential for altering flows, either slowing or reducing flows into the Charles River, or conversely reducing flows back into the ground during periods of high groundwater, or causing any groundwater "mounding," the EIR should document a mitigation plan for any such alterations. In addition, the EIR should specify what source of water would be used for groundwater recharging during and after construction. Finally, a detailed plan for the treatment and disposal of water from dewatering activities should be included in the EIR.

Option Preference

CRWA is in favor of Option D (new tunnels are being introduced with at-grade local traffic), since it will not only avoid the construction of vent buildings which could compromise the integrity of the Esplanade but more importantly will relocate the Boston Marginal Conduit and hugely alleviate the groundwater impacts associated with the structure. Given that this infrastructure upgrade would not be undertaken again for at least the next 50 years if not more, it is very important that the opportunity to resolve the groundwater crisis be taken advantage of and the design of the project be done right this time around. CRWA would thus encourage DCR to undertake further analysis to understand how this option would be designed so as to correct past mistakes of building infrastructure without paying much attention to the flow of surface and groundwater in an area that is primarily fill.

If the construction cost and/or its duration are prohibitively high and the analysis shows that that the relocation of the BMC does not prove to be very helpful in alleviating the groundwater problems, CRWA would like to then consider Option B (at-grade parkway with traffic signals for reduced traffic speed/volume). Not only does this option offer the lowest construction cost, lowest long-term maintenance cost and the shortest construction duration, but also provides an opportunity to reduce traffic speed and increase pedestrian access between Back Bay neighborhoods and the Esplanade. However, the analysis to determine the impacts on the local area roadways is critical to assess the long-term

feasibility of this option. Also the consideration of this option should include a plan for the systematic destruction of the existing eastbound tunnel and how that might help in improving groundwater flows in the area.

We appreciate the opportunity to provide comment on this project through the MEPA review process. Please feel free to contact me should you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Pallavi Kalia Mande". The signature is written in a cursive, slightly slanted style.

Pallavi Kalia Mande
Urban Restoration Specialist

cc: Epsilon Associates Inc.
Department of Conservation and Recreation
Esplanade Association
Boston Groundwater Trust