

January 27, 2022

*Via email*

Purvi Patel  
Environmental Analyst, MEPA Office  
Executive Office of Energy and Environmental Affairs  
100 Cambridge Street, Suite 900  
Boston, MA 02114  
purvi.patel@mass.gov

**Re: Environmental Notification Form for 155 North Beacon Street, Boston  
EEA No. 16506**

Dear Purvi:

Charles River Watershed Association (“CRWA”) submits the following comments on the Environmental Notification Form (“ENF”) for the proposed 155 North Beacon Street project in Boston, filed with the MEPA Office on December 15, 2021. The proposed project is a life science campus that will include three new buildings totaling 409,395 square feet of gross floor area; sub-surface parking; a publicly-accessible courtyard; an open park area; and a low-stress bike lane along the North Beacon Street frontage. As proposed, the ENF states that an Environmental Impact Report (“EIR”) threshold per 301 CMR 11.03 is not met or exceeded. However, on page 4 of the ENF, it states that “[i]mpact categories are briefly discussed individually below and the Proponent expects to provide full analyses in a Draft Environmental Impact Report (DEIR).” Therefore, CRWA assumes a DEIR will be prepared. If this is an error, CRWA requests that a DEIR be prepared and submitted due to lack of detail in the ENF related the following topics.

### ***Impervious Surface and Stormwater Management***

While this project will result in a small decrease (0.1 acre) in impervious cover on the site, nearly the entire site will be covered in impervious surface (3 acres of impervious area of the 3.11-acre site). Impervious surfaces exacerbate stormwater pollution and runoff and contribute to heat island effects. Every effort should be made to reduce impervious surfaces to the greatest extent possible. Where impossible due to necessary uses, impervious cover impacts should be mitigated through modern stormwater management.

The ENF indicates that a stormwater management system will be developed to comply with MassDEP Stormwater Management Standards and Boston Water and Sewer requirements. The ENF states that “runoff from the roof and hardscape areas will be collected in subsurface stormwater systems designed to infiltrate 1.25” of runoff,” but does not provide any other details about the stormwater management system.

More detail about stormwater management should be provided in the DEIR, including:

- More detail on the existing and proposed stormwater management, including how the project will address the Massachusetts Stormwater Management Standards [MassDEP is about to release an updated stormwater handbook and regulations; it is not clear from the ENF whether the project will comply with the updated requirements. Importantly, the changes MassDEP is proposing more accurately reflect current and future precipitation conditions, which this project’s stormwater systems should be designed to handle.]
- The extent of green infrastructure anticipated to be used on the site [Green infrastructure must be extensively incorporated into the design to capture and treat stormwater generated by impervious surfaces. More information about the types and locations of green infrastructure specifically intended to be employed and the anticipated stormwater management benefits should be provided.]
- How reductions in impervious area will be accomplished [The ENF states that the proponent is considering ways to increase pervious areas, including use of green roofs—we urge the proponent to implement such approaches wherever possible across the project site.]
- The ability of the stormwater management systems to handle current and predicted future rainfall amounts, not just the 10-year storm, using the best available science [The 2018 Massachusetts State Hazard Mitigation and Climate Adaptation Plan or “SHMCAP” outlines climate projections related to precipitation and flooding, including increased frequency and intensity of rainfall leading to flooding.]

### ***Water Quality***

Stormwater runoff from the project site will discharge to the BWSC’s drainage system and ultimately reach the lower basin of the Charles River, which is an impaired waterbody according to the Massachusetts Year 2016 Integrated List of Waters. Two Total Maximum Daily Loads (TMDLs) apply to this segment of the river: the TMDL for Nutrients In the Lower Charles River Basin, Massachusetts, June 2007 (EPA TMDL No. 33826); and the Final Pathogen TMDL for the Charles River Watershed January 2007 (EPA TMDL No. 32371). There is no discussion in the ENF about how the project will address these pollutants and the TMDLs. This analysis should be included in the DEIR.

Under the Nutrient TMDL, significant reductions in phosphorus loading are required in order to meet water quality standards—there is no “room” for any additional phosphorus loading to the Charles River. Accordingly, the TMDL specifically states that “development will need to minimize or offset phosphorus loads.” Reduction requirements contained in the TMDL follow the assumptions that (1) commercial, industrial, high density residential, and medium density residential land uses will achieve or exceed an average annual phosphorus load reduction of 65%, (2) low density residential land uses will achieve 45% load reduction, (3) agriculture and open land will achieve 35% load reduction, and (4) forest/undeveloped areas will not increase the load. The project must reduce the discharge of phosphorus consistent with the phosphorus TMDL. The pre- and post-development annual phosphorus load from the site should be evaluated and additional stormwater management plans detailing system sizing, type, and location should be provided in the DEIR, along with calculations showing that the project complies with the phosphorus TMDL.

The project must also address the discharge of bacteria to the Charles River. Inflow and Infiltration (I&I) mitigation work to address aging sewer infrastructure is one important way to limit the migration of bacteria into our local waterbodies; illicit discharge detection and elimination (IDDE) is another. Under Stormwater Handbook Standard 10 – Prohibition of Illicit Discharges, for any sewer and storm drain infrastructure remaining on site, we would expect the proponent to confirm the condition and separation of stormwater utilities, and that there are no illicit connections. Bacteria in waterbodies does not only come from sewers, but also non-point source pollution—in particular, animal and pet waste that is improperly disposed of. The project should provide pet waste stations or trash cans that are emptied on a sufficiently frequent schedule, catch basin grates cast with the term “Do not Dump – Drains to River,” and signs about the importance of picking up after your pet. Bacteria can also come from soils and decomposition of natural materials. Catch basins and water quality units collect much of this material, and some of it may enter the infiltration systems. Frequent cleaning as part of a long-term operation and maintenance program is a critical way to keep these materials from entering the piped network and subsurface systems.

### ***Trees & Vegetation***

Trees and other vegetation improve air and water quality, help control stormwater runoff and flooding, and provide natural cooling. Trees are also critical to the pedestrian experience—keeping people comfortable while they utilize a space is a key consideration in public realm improvements. The ENF indicates that existing trees will be retained but the accompanying RMAT analysis states that trees will be removed as part of the project. We request clarification on this point in the DEIR, and if trees are proposed for removal, the proponent should state how many trees will be removed, including the species, density, and age of trees. We appreciate that the project proposes to increase the overall amount of onsite trees in the post-construction condition, but note that the benefits of new young trees will not be the same as any mature trees removed. We support planting native trees and shrubs within proposed landscaped areas and along proposed roadways wherever possible.

## *Climate Resilience*

An analysis using the RMAAT Climate Resilience Design Standards Tool demonstrates that this project is at “high risk” for extreme heat and “moderate risk” for extreme precipitation/urban flooding. Minimizing impervious surface and preserving mature trees would further reduce the risks posed by both flooding and extreme heat. As discussed above, existing impervious area should be reduced wherever possible and tree canopy should be increased to the maximum extent possible. Progressive approaches to heat island should be used including cool pavements and materials. Stormwater management systems should be designed to not only accommodate current storms, but future storms as well. Progressive approaches, including green roofs and rainwater harvesting or greywater reuse, should be implemented. We look forward to seeing more detail about the project’s climate resilience measures in the DEIR.

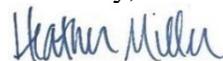
In addition, the SHMCAP identifies drought and storms as serious concerns. As precipitation patterns change and average temperatures increase, the frequency and intensity of drought is projected to increase during the summer and fall. Increased drought frequency may also exacerbate the impacts of flood events, as droughts can cause vegetation that would otherwise have helped mitigate flooding to die off. Vegetated areas not only reduce the risk of downstream flooding but also increase the rate of groundwater recharge, which in turn increases an area’s resilience to future drought events. Severe winter storms and nor’easters are currently the most frequently occurring natural hazard in the state. Massachusetts also experiences 20–30 thunderstorm days per year, with high winds occurring even more frequently. Tropical storms and hurricanes also impact the state, with an average occurrence of one event every two years. All of these severe weather events are expected to increase in intensity and frequency, including higher precipitation amounts. Further detail about how the project will address climate concerns should be provided in the DEIR.

## *Relationship to Other Nearby Projects*

One significant community criticism about other large redevelopment projects in the area is a lack of clarity about collective impacts and consideration for related prior and ongoing planning studies and nearby new and redevelopment projects. Under the Land Section, item III. Consistency, the ENF notes Article 51 of the Boston Zoning Code from November 1991 and June 2009 MetroFuture regional plan prepared by MAPC, both of which are dated and do not reflect the current thinking of the City of Boston, Brighton, or its residents. The ENF does not adequately document how this project fits into related planning studies or intended public access and corridor plans in this area, nevermind Boston’s climate change and tree canopy-related plans and goals, which should be provided in the DEIR. Information on the current project’s relation and collective impact with other redevelopments in the area should be provided in the DEIR.

Thank you for considering these comments.

Sincerely,



Heather Miller, Esq.

General Counsel and Policy Director