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August 23, 2021

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME : Weld Boathouse Renovation
PROJECT MUNICIPALITY : Cambridge
PROJECT WATERSHED : Charles River
EEA NUMBER : 16416
PROJECT PROPONENT : Harvard University and the Harvard University Athletics
DATE NOTICED IN MONITOR : July 23, 2021

Pursuant to the Massachusetts Environmental Policy Act (MEPA; M.G.L. c. 30, ss. 61-62I) and Section 11.06 of the MEPA regulations (301 CMR 11.00), I hereby determine that this project **does not require** an Environmental Impact Report (EIR).

Project Description

As described in the Environmental Notification Form (ENF), the project includes repair and renovation of the Weld boathouse in Cambridge including accessibility enhancements; reconstruction of ±8,460 square feet (sf) of pile-supported and floating docks and ramps within the existing footprint, including replacement of the structural frame, piles and deck; and improvements to stormwater management infrastructure and sidewalks along Memorial Drive. The ENF indicates that the Weld docks have reached the end of their useful life.

According to the ENF, the project site contains Environmental Justice (EJ) populations characterized as Minority. Specifically, the project site EJ characteristics include median household income of \$63,269, which equates to 73.7 percent of the state median; total minority population of 53.8 percent; and households with language isolation of 6.3 percent. The ENF indicates that the project is not anticipated to subject this EJ community, or EJ communities within the vicinity of the project site to significant potential environmental impacts, specifically related to vehicular traffic and associated increased air emissions since Harvard's use of the facility is primarily by students that access the facility by foot, and there is no dedicated vehicle parking available onsite. The project will not interfere with

existing public access to the Charles River near the project site.

Harvard University (Harvard) is also proposing a project involving improvements to the Newell Boathouse on the Boston side of the Charles River. Similar to the Weld Boathouse, the proposed improvements include repairs, renovations, accessibility enhancements, reconstruction and expansion of the docks, construction of enhanced boat storage and improved stormwater management (Newell Boathouse Project). Consistent with the Secretary's Certificate on the Final EIR (EEA #14069) on an Institutional Master Plan submitted by Harvard, a Project Commencement Notice (PCN) has been submitted for the Newell Boathouse Project and is undergoing review simultaneously with this project.

Project Site

The Weld Boathouse is located on ±1.87 acres of land located at 971 Memorial Drive within the Massachusetts Department of Conservation and Recreation (DCR) Charles River Reservation owned in fee by the Commonwealth under the care and control of DCR and leased by Harvard. The Weld Boathouse is located on the Cambridge side of the Charles River adjacent to Memorial Drive. The project site is adjacent to John F. Kennedy (JFK) Street, proximate to Harvard Yard, and is east (downstream) of the Anderson Memorial Bridge. The project site contains a boathouse, a small gravel area along Memorial Drive/JFK Street that is used as a temporary loading/ unloading area for trailers carrying rowing shells, and fixed pile-supported timber decks that connect the boathouse with floating docks on the Charles River. Proposed work will occur on a 0.5-acre portion of the larger 1.87-acre site directly abutting the boathouse. The Weld Boathouse is listed in the State Register of Historic Places as a contributing property in the Charles River Basin Historic District which was listed in the National Register of Historic Places in 1978.

The project site contains filled and flowed tidelands associated with the Charles River. Wetland resource areas include Bank, Riverfront Area (RFA), Bordering Land Subject to Flooding (BLSF) and Land Under Water (LUW). According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) (Map No. 25017C0576E, effective June 4, 2010), a portion of the site is located within a Zone AE (area subject to inundation by a one-percent annual chance flood event) with a base flood elevation (BFE) at 4 feet.

Harvard operates the women's varsity rowing program out of the Weld Boathouse. The Weld Boathouse also supports recreational rowing programs that serve the Harvard community and provide community dock access for special community events such as The Head of the Charles Regatta. Harvard men's rowing uses the Newell Boathouse on the Boston side of the Charles River.

Environmental Impacts and Mitigation

Potential environmental impacts of the project include creation of 700 square feet (sf) of impervious area and alteration of 4,200 sf of RFA (temporary) and 113 sf of LUW (permanent). Measures to avoid, minimize, and mitigate environmental impacts include reconstruction within the general footprint of existing infrastructure; construction of stormwater improvements and implementation of construction period best management practices (BMPs).

Jurisdiction and Permitting

This project is undergoing MEPA review and requires an ENF pursuant to 301 CMR

11.03(3)(b)(6) because it requires an Agency Action and involves construction, reconstruction or expansion of an existing solid fill structure of 1,000 or more sf base area or of a pile-supported structure of 2,000 or more sf base area, provided the structure occupies flowed tidelands or other waterways. The project requires a Chapter 91 License (c. 91) from the Massachusetts Department of Environmental Protection (MassDEP), a Construction and Access Permit from DCR, and a Section 8(m) Permit from the Massachusetts Water Resources Authority (MWRA).

The project requires an Order of Conditions from the Cambridge Conservation Commission (or in the case of an appeal, a Superseding Order of Conditions from MassDEP) and review by the Massachusetts Historical Commission (MHC) in accordance with M.G.L. Chapter 9, Sections 27-27c, as amended.

Because the Proponent is not seeking Financial Assistance from the Commonwealth for the project, MEPA jurisdiction extends to those aspects of the project that are within the subject matter of required or potentially required Agency Actions and that may cause Damage to the Environment as defined in the MEPA regulations.

Review of the ENF

The ENF provides a description of existing and proposed conditions, preliminary project plans, and an analysis of alternatives. It identifies measures to avoid, minimize and mitigate project impacts. The Proponent submitted supplemental information on August 11 and 17, 2021 to document an alternate construction methodology for reconstruction of the Weld Boathouse docks and to provide responses to comments from MassDEP and the Charles River Watershed Association (CRWA), respectively. For purposes of clarity, all supplemental materials are referred to herein as the “ENF” unless otherwise referenced.

DCR comments indicate that permits for work on the project site must be reviewed and approved by DCR prior to filing with the Cambridge Conservation Commission, MassDEP, MWRA and MHC. DCR comments indicate that the project will likely avoid impacts to the Charles River Reservation and minimize unavoidable impacts.

Alternatives Analysis

The ENF includes an analysis of the No Action Alternative, Increased Build Alternative and the Preferred Alternative, as described herein. The No Action Alternative would maintain existing conditions at the project site and leave the boathouse in need of upgrades and the docks in need of repairs. The ENF describes the need for reconstruction based upon safety and operational reasons. Therefore, the No Action Alternative is not considered viable. The Increased Build Alternative would reconfigure and potentially expand the Weld docks to better serve the women’s varsity rowing programs. This alternative was dismissed based on the greater environmental impacts associated with reconfiguring and/or expanding the docks. The Preferred Alternative has been designed to minimize environmental impacts while meeting the programmatic needs of the Harvard Athletic Programs, which include keeping the rowing programs operational during construction.

Wetlands, Waterways and Stormwater

The project will impact RFA, LUW and Buffer Zone to Bank. The Cambridge Conservation

Commission will review the project for its consistency with the Wetlands Protection Act (WPA), Wetlands Regulations (310 CMR 10.00) and associated performance standards including stormwater management standards (SMS). MassDEP will review the project to determine its consistency with the Waterways Regulations (310 CMR 9.00). MassDEP has determined that the project would be classified as a water-dependent use project pursuant to 310 CMR 9.12.

The project proposes repairs to existing timber piles under the dock via encasement within concrete filled jackets, and replacing timber bracing, piles caps, stringers, and decking. Ramps and floating docks will be replaced, including installation of steel pipe guide piles. Proposed repairs to the Weld dock will result in minor alteration to LUW due to the proposed larger diameter of the jackets; however, work will be limited to the overall footprint of the existing dock. Supplemental information indicates that the Proponent is currently exploring the financial and technical feasibility of an alternative construction methodology that would cut existing piles at the mudline and install new 12-inch diameter piles rather than jacket the existing piles. Driving new piles would cause minor disturbance during installation. Similarly, cutting existing piles would aid in the mudline stability. As documented in the ENF, the jacketing alternative would result in ± 113 sf of permanent impacts to LUW, compared to the alternative methodology of driving new piles which would result in 44.28 sf of impacts to LUW (68.76-sf decrease). The Proponent anticipates that the impacts of this alternative would not exceed the impacts documented in the ENF, and would potentially result in fewer impacts to the mudline and LUW when compared to the jacketing methodology.

Currently there is little to no stormwater treatment onsite and runoff sheet flows directly into the Charles River. Sidewalk geometry improvements at the front of the boathouse and the addition of a new paved bike rack area will result in ± 700 sf of new impervious area. Site improvements and proposed BMPs include a bioretention basin, a new drywell and improved drainage to the Charles River.

As previously mentioned, the Proponent submitted supplemental information to respond to comments from CRWA regarding stormwater management, compliance with Total Maximum Daily Loads (TMDLs) for phosphorus and bacteria, construction period impacts, and tree removal. The Notice of Intent (NOI) anticipated to be submitted to the Cambridge Conservation Commission in Fall 2021 will include a detailed stormwater report with back up calculations to demonstrate compliance with the SMS; include calculations demonstrating compliance with the TMDLs; a detailed operation and maintenance plan for the different stormwater management systems; and landscape plans. It is anticipated that proposed stormwater BMPs designed will be able to mitigate for the phosphorous and pathogen TMDL removal requirements to the extent feasible. The Proponent will explore the measures recommended in CRWA comments to minimize migration of sediment and other pollutants from the land surface to the Charles River during construction and will provide additional information and detailed plans as part of the NOI. No existing trees are proposed to be removed.

Waterways

The project is located on filled and flowed Commonwealth tidelands of the Charles River and subject to c. 91 jurisdiction pursuant to 310 CMR 9.04(1) and (2). The project site includes $\pm 20,308$ sf of filled tidelands. The southeast corner of the boathouse is located on a small area of filled tidelands ($\pm 1,000$ sf). The majority of the filled tidelands is located to the east of the boathouse and will not be altered. The site also includes fixed and floating docks connected to the boathouse that are located over flowed tidelands. The ENF provides a summary of the project's consistency pursuant to 310 CMR 9.00 and historic licensing. License No. 1545 (1893) authorized construction of the Weld boathouse floats, a

bulkhead, and fill. License No. 2062 (1897) authorized fill along the northern shoreline of the Charles River between JFK Street and Western Avenue. Over the years the pile-supported/floating docks have been modified and significantly expanded; however, subsequent licenses were not identified that authorize the current configuration. MassDEP comments indicate that the jurisdictional area depicted on Figures 1.4 and 1.5 does not appear to include any of the fill authorized by License 1545 ($\pm 5,800$ sf).

The original pier and floating dock structures were constructed in the late 1800s (License No. 1545) with $\pm 1,972$ sf of deck over tidelands. The current dock configuration occupies $\pm 8,460$ sf of deck over tidelands (an unauthorized expansion of $\pm 6,668$ sf). The project proposes to completely reconstruct the Weld dock with new piles, structural frame and decking in the same footprint as the existing dock.

The $\pm 22,349$ -sf Weld Boathouse was constructed in 1906 of concrete and brick, with a terra cotta roof (12,798-sf footprint). No waterways licenses were identified that authorized the boathouse. Improvements to the boathouse within the original footprint include but are not limited to a new roof, historic window and door restoration, masonry restoration, accessibility upgrades, Building Code upgrades, reconfiguration of interior storage, new mechanical system upgrades and new locker rooms/bathrooms. Proposed landscape improvements to the northern side of the boathouse are outside the c. 91 jurisdiction area.

MassDEP comments indicate that the proposed renovation work for both the boathouse and docks will require a Waterways License pursuant to 310 CMR 9.05(1)(a) and (b) because no authorization has been found for the existing boathouse nor the post-1893 dock expansions. The Proponent must submit a new application that demonstrates compliance with 310 CMR 9.00 with particular attention paid to the provisions discussed below. Comments from CRWA emphasize the project's requirement to comply with Waterways Regulations that protect the public rights in tidelands.

The Proponent must demonstrate that the project will not significantly interfere with the public rights of navigation which exist in all waterways pursuant to 310 CMR 9.35(2)(a). MassDEP cannot find that this standard has been met for a project that extends seaward of a state harbor line unless that project has been specifically authorized by law. In this case, the post-1893 expansions of the float system have extended beyond the state harbor line. While MassDEP recognizes that navigational uses of this section of the Charles River have evolved since issuance of License 1545, and that unauthorized floats are not located within an active channel, it is statutorily bound by these harbor line standards. The Proponent should continue its constructive engagement with MassDEP regarding these standards and confer with DCR and other stakeholders, develop the necessary survey data in a timely fashion and pursue a solution that will bring the existing and renovated docks into compliance with the statute and regulations. According to the ENF, the Proponent is committed to working collaboratively with MassDEP to secure legislative action prior to the issuance of a final c. 91 license for the project.

Water dependent use projects located on Commonwealth Tidelands are required to provide compensation to the public for interfering with its broad rights to use such lands for any lawful purpose pursuant to 310 CMR 9.35(4). MassDEP comments recommend that the Proponent coordinate with MassDEP prior to finalizing project design details and/or filing a license application because the ENF does not appear to accurately evaluate the applicability of and compliance with this regulation.

The Construction Plan included in the ENF depicts construction perimeter fencing which closes off all pedestrian access on the northeastern edge of the project site and narrows pedestrian access along the walkway on DCR land to 4.5 feet. Given the extremely active use of this pathway by pedestrians,

MassDEP strongly recommends revising the perimeter to allow a minimum safe passage width of 10 feet to appropriate manage areas accessible to the public pursuant to 310 CMR 9.35(5).

The Waterways License Application for the boathouse and dock should include an assessment of potential impacts to navigation in the Charles River and to public access along the shoreline during the active construction period and a description of measures designed to avoid and minimize such impacts. At a minimum, mitigation measures are anticipated to include signage, temporary walkways (if needed) and lighting on any barge or other temporary obstruction to navigation. MassDEP anticipates additional consultation with the Proponent followed by the filing of a Waterways License Application which meets the minimum filing standards set forth in 310 CMR 9.11(3)(a) through (c), and demonstrates compliance with all applicable provisions of 310 CMR 9.00.

Supplemental information responds to comments from CRWA regarding public access in compliance with 310 CMR 9.00, specifically the public's "broad rights to use such lands for any lawful purpose," including by interfering with the public's rights to freely access this part of the riverbank and watershed and navigate through the area where the Boathouse and docks are located. The Proponent acknowledges Section 9.35(4) of the c. 91 regulations which requires water dependent use projects located on Commonwealth Tidelands to provide compensation to the public for interfering with its broad rights to use such lands for any lawful purpose. Currently, users of the Dr. Paul Dudley White bike path and the general public can access and walk along the waterfront to the west and east of the boathouse. The Proponent is committed to ensuring that the project complies with all c. 91 regulatory standards, and will provide appropriate mitigation that will facilitate public access to and along the waterfront. In addition, the Proponent is committed to ensuring that the project will enhance, and will not impede navigation and use along the Charles River which is over 440 feet wide at this location; the boathouse extends approximately 65 feet riverward of the seawall preserving over 80 percent of the channel width for navigating past the boathouse. Harvard will work with the CRWA, MassDEP and other stakeholders as the project advances through the c. 91 Licensing process.

Climate Change and Resiliency

The ENF includes a discussion of the project in the context of climate change adaptation and resiliency. New infrastructure proposed to be constructed at the water-dependent facility is anticipated to have a design life of less than 50 years. According to the FEMA FIRM, the upland portion of the site is not currently subject to flooding during the one percent annual chance flood event, which is contained within the banks of the Charles River. In addition, the City of Cambridge's Climate Change Preparedness and Resilience Plan (CCPR Plan) indicates that the boathouse and the upland portion of the project site will not be vulnerable to coastal flooding from sea level rise based on the City's projections for 2030 through 2070. According to the CCPR projections, limited portions of Memorial Drive fronting the project site are vulnerable to increased precipitation-based flooding during the 100-year 2030 and 2070 storm events. This flooding is not anticipated to impact the project site. The Charles River was a tidal water body until completion of the first Charles River Dam in 1910 which reduces the likelihood of future tidal flooding. The fixed and floating docks which are located in and over the water may be vulnerable to flooding from future 100-year 2070 coastal storm events that flank the Charles River Dam. However, according to the ENF, the docks and deck structures are designed to get wet, and the useful design life of these structures is less than 50 years (2070). The Proponent will consider any future changes in climate change projections and flood elevations when the docks are rebuilt/reconstructed in the future.

Construction Period

BMPs will be used to minimize impacts to wetlands during the construction period, including deployment of a floating debris boom around the proposed repair areas and turbidity/silt curtains to avoid dispersal of debris material during construction work from migrating into the river. Construction staging, including all equipment and materials, will occur in the northwest area of the site within the existing gravel area adjacent to the boathouse. It is anticipated that a crane located on a floating barge in addition to small work floats and a work skiff will be used to stage the repairs.

All construction and demolition (C&D) activities should be managed in accordance with applicable MassDEP’s regulations regarding Air Pollution Control (310 CMR 7.01, 7.09-7.10), and Solid Waste Facilities (310 CMR 16.00 and 310 CMR 19.00, including the waste ban provision at 310 CMR 19.017). The Proponent will install BMPs on the project site to control erosion and sedimentation during the construction period. The project should include measures to reduce construction period impacts (e.g., noise, dust, odor, solid waste management) and emissions of air pollutants from equipment, including anti-idling measures in accordance with Air Quality regulations (310 CMR 7.11). I encourage the Proponent to require contractors to use construction equipment with engines manufactured to Tier 4 federal emission standards, or select project contractors that have installed retrofit emissions control devices or vehicles that use alternative fuels to reduce emissions of volatile organic compounds (VOCs), carbon monoxide (CO) and particulate matter (PM) from diesel-powered equipment. Off-road vehicles are required to use ultra-low sulfur diesel fuel (ULSD). If oil and/or hazardous materials are found during construction, the Town should notify MassDEP in accordance with the Massachusetts Contingency Plan (310 CMR 40.0000). The contractor will be required to have hazardous materials spill prevention and clean up kits available on site for any waterborne equipment. All C&D activities should be undertaken in compliance with the conditions of all State and local permits. I encourage the Proponent to reuse/recycle C&D debris to the maximum extent.

Conclusion

The ENF has adequately described and analyzed the project and its alternatives, and assessed its potential environmental impacts and mitigation measures. Based on review of the ENF and comments received on it, and in consultation with State Agencies, I have determined that an EIR is not required.

August 23, 2021
Date

K. Theoharides
Kathleen A. Theoharides

Comments received:

- 08/11/2021 Massachusetts Department of Conservation and Recreation (DCR)
- 08/12/2021 Charles River Watershed Association (CRWA)
- 08/12/2021 Massachusetts Water Resources Authority (MWRA)
- 08/12/2021 Massachusetts Board of Underwater Archaeological Resources (BUAR)
- 08/12/2021 Massachusetts Department of Environmental Protection (MassDEP) – Waterways Regulatory Program (WRP)

KAT/PPP/ppp



August 12, 2021

Secretary Kathleen A. Theoharides
Executive Office of Energy and Environmental Affairs
Attn: Purvi Patel, MEPA Office
100 Cambridge Street, Suite 900
Boston, Massachusetts 02114

Re: EOEEA #16416 Weld Boathouse Renovation ENF

Dear Secretary Theoharides:

The Department of Conservation and Recreation (“DCR” or “Department”) is pleased to submit the following comments in response to the Environmental Notification Form (“ENF”) submitted by Harvard University (the “Proponent”) for the Weld Boathouse Renovation (the “Project”).

As described in the ENF, the Project includes exterior repairs, modest interior renovations, interior and exterior accessibility enhancements, and reconstruction of the existing Weld docks. The Project site is located at 971 Memorial Drive, Cambridge. DCR has care, custody and control of the portion of the Charles River Reservation where the Weld Boathouse is located. The land on which the Weld Boathouse is located is currently leased to Harvard University; the lease was authorized by St. 1989, c. 536.

Chapter 91 and Wetlands Protection Act regulations are applicable to work activities on the Project site. A Project Notification Form will be submitted for review by the Massachusetts Historical Commission (“MHC”). Permits for work on the Project site must be reviewed and approved by DCR prior to filing with the Cambridge Conservation Commission, DEP, MWRA and MHC. Work activities on site will also require a DCR Construction and Access Permit (“CAP”).

DCR believes the proposal avoids detrimental impacts to the Charles River Reservation and minimizes unavoidable impacts. DCR looks forward to working with the Proponent prior to and during construction and to ensure protection of natural and historical resources.

Thank you for the opportunity to comment on the ENF. Please contact Ruth Helfeld, Director, Landscape Architecture Section at ruth.helfeld@mass.gov with questions related to site design considerations. Please contact Sean Casey, Director of Construction and Access Permits at sean.casey@mass.gov to request a CAP.

Sincerely,

Jim Montgomery
Commissioner

cc: Sean Casey, Ruth Helfeld, Patrice Kish, Priscilla Geigis, Tom LaRosa

COMMONWEALTH OF MASSACHUSETTS · EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS

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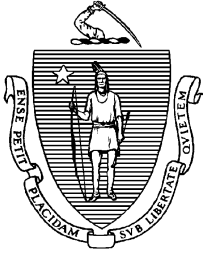


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Kathleen A. Theoharides, Secretary
Executive Office of Energy & Environmental Affairs

Jim Montgomery, Commissioner
Department of Conservation & Recreation



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August 12, 2021

Kathleen A. Theoharides, Secretary
Executive Office of Energy and Environmental Affairs
Attention: Purvi Patel, MEPA Unit (via email attachment)
100 Cambridge Street, Suite 900
Boston, MA 02114

RE: Weld Boathouse Renovation (EEA# 16416), 971 Memorial Drive, Cambridge, MA

Dear Secretary Theoharides,

The staff of the Massachusetts Board of Underwater Archaeological Resources has reviewed the above-referenced proposed project as detailed in the *Environmental Monitor* of July 23, 2021 and offers the following comments.

The Board has conducted a preliminary review of its files and secondary literature sources to identify known and potential underwater archaeological resources within the proposed project area. No record of any underwater archaeological resources was found. Based on the results of this review and limited nature of the project's wetlands and underwater impacts to within the existing dock footprint, the Board considers this project unlikely to adversely impact submerged cultural resources.

However, should heretofore-unknown underwater archaeological resources be encountered during the course of the project, the Board expects that the project's sponsor will take steps to limit adverse effects and notify the Board and the Massachusetts Historical Commission, as well as other appropriate agencies, immediately, in accordance with the Board's *Policy Guidance for the Discovery of Unanticipated Archaeological Resources*.

The Board appreciates the opportunity to provide these comments as part of the MEPA review process. Should you have any questions regarding this letter, please do not hesitate to contact me at the address above or by email at david.s.robinson@mass.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "David S. Robinson".

David S. Robinson
Director

/dsr

Cc: Brona Simon, MHC
Bettina Washington, WTGH/A (via email attachment)
David Weeden, MWT (via email attachment)

August 12, 2021

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 the Weld Boathouse Renovation,
Cambridge, EEA #16416**

Dear Purvi,

Charles River Watershed Association (CRWA) submits the following comments on the Environmental Notification Form (ENF) for the renovation of the Weld Boathouse (Boathouse), located at 971 Memorial Drive, Cambridge, on the shoreline of the Charles River at the corner of Memorial Drive and John F. Kennedy Street. Harvard University, the project proponent, proposes to make exterior repairs and modest interior renovations to the Weld boathouse, interior and exterior accessibility enhancements, and reconstruction of the existing Weld docks which have reached the end of their useful life. The changes and additions to the project would result in a net increase of impervious surface of approximately 700 square feet.

Post-Construction Stormwater and Water Quality Management

CRWA is pleased to see that Harvard is planning to make improvements to the site to manage post-construction stormwater runoff. These best management practices (BMPs) consist of a drywell and a bioretention basin.

Harvard provides limited design and sizing information in the ENF. Figure 1-4 shows the proposed site plan but does not indicate the locations of the BMPs. The narrative provides a water quality volume summary but does not explain how the project will comply with the Massachusetts Stormwater Management Standards and Handbook.

Harvard should address these questions in a response to comments on the ENF and these design concerns should be resolved during subsequent City permitting processes.

Furthermore, as Harvard is aware, the Lower Basin of the Charles River is subject to a Total Maximum Daily Load (TMDL) for phosphorus (Total Maximum Daily Load for Nutrients In the Lower Charles River Basin, Massachusetts, June 2007 (EPA TMDL No. 33826)) and a TMDL for bacteria (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 TMDLs. Complete documentation of how the project is designed to address the TMDLs,

including calculations of pre- and post-construction pollutant loading (including TSS and phosphorus), should be provided.

Construction Period Impacts

The ENF notes that Harvard plans to mitigation impacts during construction, but the narrative in the ENF is very limited on details.

Enclosing the project worksite with a floating debris boom during construction and having a hazardous materials spill kit on-site will help; however, it is not sufficient to minimize the migration of sediment and other pollutants from the land surface to the Charles River during construction. At the very least, the list of measures described below should be included in the construction management plan for the project:

- Employ a double row of hay bales and silt fences (properly installed) as erosion control measures around the construction site and at the mudline. Mulch tubes/fiber rolls/etc. are not acceptable for this location as they are often perforated post-construction and material left on-site, which will ultimately likely enter the river.
- Develop and implement a protective protocol to prevent construction materials and disturbed soils from entering the river during construction.
- Install netting and/or tarps under the dock structures to ensure that debris is not released from work over water into the river.
- Develop and implement a protocol for inspecting and ensuring the integrity of these erosion measures every day, including replacing the hay bales as they deteriorate.
- Set up detailed truck staging and parking—non-essential construction vehicles should park more than 50 feet from the river, trucks should not be allowed to park within 25 feet of Riverfront zone, and a parking area should be designated for all non-essential vehicles.
- Develop and implement a spill prevention plan and emergency flood control plan (and submit this plan to the Boston Conservation Commission for review within 10 days of beginning construction).

Harvard should include stormwater and wetlands mitigation in the construction management plan. CRWA would be happy to work with Harvard to develop this plan. Harvard should address these concerns in a response to comments on the ENF and resolve these design concerns during subsequent City permitting processes.

Operation & Maintenance of the Drainage System

The ENF provides no information on proposed operation and maintenance of the drainage system, including the BMPs. Such documentation should be provided in the City permitting processes to ensure that the BMPs will be maintained to function for their useful life.

Landscaping and Trees

The ENF does not say whether any trees will be removed as part of this project. Harvard should provide planting plans that document existing and proposed trees (and vegetation) and indicate species and size (diameter at breast height). CRWA supports landscaping consistent with the DCR Charles River Basin Master Plan. The planting plans should pay special attention to preserving and planting trees along the riverbank, a critical riparian habitat and buffer for the river

Public Access

The ENF indicates that this project will require a new Chapter 91 waterways license that must comply with the waterways regulations found at 310 CMR 9.00. We look forward to providing more detailed comments on the application for the new license, but at this point note the following concerns.

According to the ENF, this boathouse is used for Harvard's women's varsity rowing, recreational rowing programs that serve the Harvard community, and community dock access for special community events such as The Head of the Charles Regatta. The project will be built over both filled and flowed tidelands, all of which are Commonwealth tidelands. This project is water-dependent and is therefore presumed to serve a proper public purpose. 310 CMR 9.31(2)(a). The project must comply with applicable provisions of the waterways regulations that protect public rights in tidelands. 310 CMR 9.35(1) ("The project shall preserve any rights held by the Commonwealth in trust for the public to use tidelands...and other waterways for lawful purposes; and shall preserve any public rights of access that are associated with such use.").

The waterways regulations require compensation for any interference with public rights in Commonwealth tidelands. Section 9.35(4) of the regulations provides that "[a]ny water-dependent use project which includes fill or structures for private use of Commonwealth tidelands... shall provide compensation to the public for interfering with its broad rights to use such lands for any lawful purpose. Such compensation shall be commensurate with the extent of interference caused, and shall take the form of measures deemed appropriate by the Department to promote public use and enjoyment of the water, at a location on or near the project site if feasible."

Under the waterways regulations, projects on Commonwealth tidelands shall not significantly interfere with public rights to walk or otherwise pass freely for purposes of fishing, fowling, navigation, and the natural derivatives thereof, and all other lawful activities, including swimming, strolling, and other recreational activities. 310 CMR 9.35(3)(b). "If the project is a water-dependent use project on filled Commonwealth tidelands, said project shall provide for public passage thereon by such means as are consistent with the need to avoid undue interference with the water-dependent uses in question" and "measures which may be appropriate in this regard include, but are not limited to, allowing the public to pass laterally along portions of the project shoreline, or transversely across the site to a point on the project shoreline." 310 CMR 9.35(3)(b)2.b. The regulations further require that "for any private recreational boating facility, reasonable arrangements shall be made to accommodate public

pedestrian access along or to the water's edge; generally, unless other measures are determined to be more appropriate by the Department, such access shall be provided by establishing, as a condition of the license, a lateral accessway at or near the high water mark wherein the public may pass freely across the seaward end of the property from dawn to dusk." 310 CMR 9.35(4)(a).

Harvard asserts that these regulatory provisions are not applicable to the project. However, public rights in Commonwealth tidelands exist regardless of whether Harvard is currently allowing the public to exercise those rights. These regulatory standards are very much applicable to the project, and Harvard must explain how it will comply with them.

The ENF does not explain what compensation will be provided for interference with the public's rights in these Commonwealth tidelands, nor what reasonable arrangements will be made to accommodate public pedestrian access along or to the water's edge. Instead, Harvard states that "[t]he existing boathouse and docks are not accessible to the general public. The renovations to the water-dependent boathouse and recreational boating activities will not inhibit, restrict or otherwise discourage existing public use of the Charles River shoreline to the east of the boathouse along the Memorial Drive Esplanade." This statement does not address the proponent's obligations to comply with the regulatory requirements described above.

This project will interfere with the public's "broad rights to use such lands for any lawful purpose," including by interfering with the public's rights to freely access *this* part of the riverbank and watershed (the proponent wrongly focuses on whether the project will affect the public's ability to use and access the Charles River shoreline east of the boathouse along the Memorial Drive Esplanade) and navigate through the area where the Boathouse and docks are located. The regulations do not require any threshold to be met with respect to the extent of the interference in order for compensation to be required; they require compensation commensurate with the extent of interference caused. The regulations also clearly require reasonable accommodation for public passage along or to the river's edge, which is not contemplated in the ENF. We expect to see these critical omissions addressed in the waterways license application.

Thank you for considering these comments.

Sincerely,



Heather Miller, Esq.
General Counsel & Policy Director



MASSACHUSETTS WATER RESOURCES AUTHORITY

Charlestown Navy Yard
100 First Avenue, Building 39
Boston, MA 02129

Frederick A. Laskey
Executive Director

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August 12, 2021

Kathleen A. Theoharides, Secretary
Executive Office of Energy and Environmental Affairs
100 Cambridge St, Suite 900
Attn: MEPA Office, Purvi Patel
Boston, MA 02114

Subject: EOEEA #16146 – Environmental Notification Form
Weld Boathouse Renovation, Cambridge, Massachusetts

Dear Secretary Theoharides,

The Massachusetts Water Resources Authority (MWRA) appreciates the opportunity to comment on the Environmental Notification Form (ENF) submitted by Harvard University and the Harvard University Athletics (the “Proponent”) for Weld Boathouse Renovation (the “Project”) in Cambridge, Massachusetts. The Weld Boathouse is located on the Cambridge Shoreline of the Charles River adjacent to Memorial Drive. The Project involves exterior repairs and interior renovations to the Weld Boathouse including accessibility enhancements and reconstruction of the existing docks.

Section 8(m) of Chapter 372 of the Acts of 1984, MWRA’s Enabling Legislation, allows the MWRA to issue permits to build, construct, excavate, or cross within or near an easement or other property interest held by the MWRA, with the goal of protecting Authority-owned infrastructure. Due to the proximity of MWRA infrastructure to the Project site, an 8(m) permit may be required. The Proponent should contact Kevin McKenna in the MWRA Water and Wastewater Permitting Group at (617) 305-5956 for assistance related to this matter.

MWRA prohibits the discharge of groundwater and stormwater into the sanitary sewer system, pursuant to 360 C.M.R. 10.023(1) except in a combined sewer area when permitted by the Authority and the local community. The Project site has access to separate sewer and storm drain systems. Therefore, the discharge of groundwater or stormwater to the sanitary sewer system associated with this Project is prohibited.

On behalf of the MWRA, thank you for the opportunity to provide comments on this Project. Please do not hesitate to contact Katie Ronan of my staff at (857) 289-1742 with any questions or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read "Rebecca Weidman", with a long horizontal flourish extending to the right.

Rebecca Weidman

Director

Environmental and Regulatory Affairs

cc: John Viola, MassDEP



Department of Environmental Protection

One Winter Street Boston, MA 02108 • 617-292-5500

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Kathleen A. Theoharides
Secretary

Martin Suuberg
Commissioner

Memorandum

To: Purvi Patel, MEPA

From: MassDEP/Boston Waterways Regulation Program

Cc: Daniel Padien, MassDEP/Boston Waterways Regulation Program

Re: Comments from the Chapter 91 Waterways Regulation Program - EEA #16416, ENF, Weld Boathouse Renovation, Cambridge, Middlesex County.

Date: August 12, 2021

The Department of Environmental Protection Waterways Regulation Program (the “WRP”) has reviewed the above referenced ENF (EEA #16416) submitted by VHB, on behalf of Harvard University and Harvard University Athletics (the “Proponent”) for the proposed renovation of the Weld Boathouse at 971 Memorial Drive, located adjacent to John F. Kennedy St. and the Anderson Bridge (the “Project Site”).

The 1.87± acre Project Site is located on the filled and flowed tidelands of the Charles River in the City of Cambridge. The site is owned in fee by the Commonwealth and subject to a lease between the Proponent and the Commonwealth, through the Department of Conservation and Recreation (“DCR”).

The project proposes to renovate the 22,349 gross square foot (“s.f.”) boathouse including exterior repairs, interior renovations, interior and exterior accessibility enhancements, reconstruction of the approximately 8,460-s.f. pile-supported and floating docks, improvements to stormwater management infrastructure and to the sidewalks along Memorial Drive.

The ENF states that the pile-supported deck and floating docks will be located within their existing footprints. However, as noted in the ENF, the docks originally authorized in 1893 by Board of Harbor and Land Commissioner’s License 1,545 had a total footprint of approximately 1,972 s.f.

The current footprint of the existing docks is approximately 8,640 s.f., an apparently unauthorized expansion of approximately 6,668 s.f.

The ENF reports that the 1893 boathouse was significantly expanded in 1907 to the current footprint and furthermore, that boathouse is located predominantly on historic uplands with only the southeast corner (approximately 1000 and a sliver of the building edge facing the river seaward of the historic high-water mark. However, the jurisdictional boundary depicted on Figure 1.4 and Figure 1.5 do not seem to include any of the fill authorized by HLC License 1545 (approximately 5,800 s.f.).

The proponent did not include any historic licensing documentation for the boathouse or the fill on which it is located, other than HLC License 1545. In the absence of a prior license for the existing structure and the fill beneath the southeast corner of the building, a retroactive license will be required for the renovated boathouse, filled tidelands and the unauthorized portions of docks.

Water Dependency:

The WRP has determined that this proposal is a water-dependent project, pursuant to 310 CMR 9.12(1) & (2)(a)(2)&(11).

Chapter 91 Jurisdiction:

As noted above, the proposed project is located on the filled and flowed Commonwealth tidelands of the Charles River and, therefore, subject to Chapter 91 jurisdiction pursuant to 310 CMR 9.04(1) and 2).

Chapter 91 Comments:

The ENF states that no authorization has been found for the existing boathouse nor the post-1893 dock expansions. Accordingly, the WRP finds that the proposed renovation work for both the boathouse and docks will require a License pursuant to 310 CMR 9.05(1)(a)&(b). As a new application, the project will be subject to the administrative and regulatory standards enumerated in 310 CMR 9.00. Particular attention should be paid to the following specific provisions:

310 CMR 9.35(2)(a) *Public Rights Applicable to All Waterways*

The proponent must demonstrate that the project will not significantly interfere with the public rights of navigation which exist in all waterways. The WRP cannot find that that standard has been met for a project that extends seaward of a state harbor line unless that project has been specifically authorized by law. In this case, the post-1893 expansions of the float system have extended beyond the state harbor line. While the WRP recognizes that navigational uses of this section of the Charles River have evolved

since the issuance of that License, and that the unauthorized floats are not located within an active channel, the WRP is statutorily bound by these harbor line standards.

The WRP expects the proponent to continue its constructive engagement with the WRP on this point and confer with DCR and other stakeholders, develop the necessary survey data in a timely fashion to address this State Harbor Line issue and pursue a solution that will bring the existing and renovated docks into compliance with the statute and regulations.

9.35(4) Compensation for Interference with Public Rights in Commonwealth Tidelands and Great Ponds. This regulation requires water dependent use projects located on Commonwealth Tidelands to provide compensation to the public for interfering with its broad rights to use such lands for any lawful purpose. The evaluation of applicability of and compliance with this regulation does not appear to be an accurate assessment, and the Department recommends coordination with staff prior to finalizing project design details and/or filing a license application.

9.35(5) Management of Areas Accessible to the Public

The WRP recognizes that certain areas will not be accessible during the construction activities associated with the project. However, on the Construction Plan included on page 43 of the filing (entitled “*Harvard and Radcliffe Rowing Facilities, Weld Building, 6/30/21*”), the WRP notes that the construction perimeter fencing closes off all pedestrian access on the northeastern edge of the project site, which has the effect of narrowing pedestrian access along the walkway on the DCR land to 4’-6”. Given the extremely active use of this pathway by pedestrians, the WRP strongly recommends revising the perimeter to allow a minimum safe passage width of 10’-0”.

Construction Phase Impacts

The Waterways License Application for the boathouse and dock should include an assessment of potential impacts to navigation in the Charles River and to public access along the shoreline during the active construction period and a description of measures designed to avoid minimize such impacts. At a minimum, mitigation measures are anticipated to include signage, temporary walkways (if needed) and lighting on any barge or other temporary obstruction to navigation.

The Department anticipates additional consultation with the project team followed by the filing of a Waterways License Application which meets the minimum filing standards as set forth in 310 CMR 9.11(3)(a) through (c), demonstrates compliance with all applicable provisions of 310 CMR 9.00 including but not limited to those cited herein and includes a Secretary’s Certificate concluding the MEPA review process.

If you have any questions regarding the WRP’s comments, please feel free to contact at DEP.waterways@mass.gov.



August 18, 2021

Purvi Patel
MEPA Office
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Re: Weld Boathouse Renovation (EEA# 16416): Response to Comments

Dear Ms. Patel:

The Proponent (Harvard University and the Harvard University Athletics) received comment letters from the Charles River Watershed Association (“CRWA”) dated August 12, 2021 and the Massachusetts Department of environmental Protection Waterways Program (MassDEP Waterways) dated August 13, 2021 that you forwarded to us. Below, we present the CRWA and MassDEP Waterways comment (or paraphrase of the comment), followed by our response.

Charles River Watershed Association Comments

Comment:

Harvard provides limited design and sizing information in the ENF. Figure 1-4 shows the proposed site plan but does not indicate the locations of the BMPs. The narrative provides a water quality volume summary but does not explain how the project will comply with the Massachusetts Stormwater Management Standards and Handbook.

Response:

Compliance with the 10 MassDEP Stormwater Standards will be shown in detail with a stormwater report and back up calculations that will be submitted with the Notice of Intent (NOI) filing. Site improvements and proposed best management practices (BMPs) include a bioretention basin, a new drywell and improved drainage to the Charles River.

Comment:

Furthermore, as Harvard is aware, the Lower Basin of the Charles River is subject to a Total Maximum Daily Load (TMDL) for phosphorus (Total Maximum Daily Load for Nutrients In the Lower Charles River Basin, Massachusetts, June 2007 (EPA TMDL No. 33826)) and a TMDL for bacteria (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 including calculations of pre- and post-construction pollutant loading (including TSS and phosphorus), should be provided.

Response:

It is anticipated that the proposed stormwater BMPs designed will be able to mitigate for the phosphorous and pathogen TMDL removal requirements to the extent feasible. Calculations demonstrating compliance with the Charles River phosphorous & pathogen TMDL will be included with the Stormwater Report that will be submitted as part of the NOI. Anticipated include a bioretention basin, a new drywell, I and improved drainage to the Charles River.

Comment:

Enclosing the project worksite with a floating debris boom during construction and having a hazardous materials spill kit on-site will help; however, it is not sufficient to minimize the migration of sediment and other pollutants from the land surface to the Charles River during construction. At the very least, the list of measures described below should be included in the construction management plan for the project:

- Employ a double row of hay bales and silt fences (properly installed) as erosion control measures around the construction site and at the mudline. Mulch tubes/fiber rolls/etc. are not acceptable for this location as they are often perforated post-construction and material left on-site, which will ultimately likely enter the river.
- Develop and implement a protective protocol to prevent construction materials and disturbed soils from entering the river during construction.
- Install netting and/or tarps under the dock structures to ensure that debris is not released from work over water into the river.
- Develop and implement a protocol for inspecting and ensuring the integrity of these erosion measures every day, including replacing the hay bales as they deteriorate.
- Set up detailed truck staging and parking—non-essential construction vehicles should park more than 50 feet from the river, trucks should not be allowed to park within 25 feet of Riverfront zone, and a parking area should be designated for all non-essential vehicles.
- Develop and implement a spill prevention plan and emergency flood control plan (and submit this plan to the Boston Conservation Commission for review within 10 days of beginning construction).
- Harvard should include stormwater and wetlands mitigation in the CMP.

Response:

So noted. The Proponent will explore the above measures, and will provide additional information and detailed plans as part of the NOI to the Cambridge Conservation Commission. Installing netting and/or tarps is not necessary for timber construction as the timber should float and will be contained in the floating debris boom. This netting will also make it potentially more hazardous to work, as the work will likely be done both from floats and the deck.



Comment:

The ENF provides no information on proposed operation and maintenance of the drainage system, including the BMPs. Such documentation should be provided in the City permitting processes to ensure that the BMPs will be maintained to function for their useful life.

Response:

A detailed operation and maintenance (O&M) plan for the different proposed stormwater management systems will be included as part of the Stormwater Report submitted with the NOI.

Comment:

The ENF does not say whether any trees will be removed as part of this project. Harvard should provide planting plans that document existing and proposed trees (and vegetation) and indicate species and size (diameter at breast height). CRWA supports landscaping consistent with the DCR Charles River Basin Master Plan. The planting plans should pay special attention to preserving and planting trees along the riverbank, a critical riparian habitat and buffer for the river.

Response:

Landscape plans that provide the detail requested by the CRWA are currently under development and will be submitted as part of the filing that is expected to be submitted Fall 2021. No existing trees are proposed to be removed.

Comment:

This project will interfere with the public's "broad rights to use such lands for any lawful purpose," including by interfering with the public's rights to freely access *this* part of the riverbank and watersheet (the proponent wrongly focuses on whether the project will affect the public's ability to use and access the waterfront within the broader Charles River Reservation) and navigate through the area where the Boathouse and docks are located. The regulations do not require any threshold to be met with respect to the extent of the interference in order for compensation to be required; they require compensation commensurate with the extent of interference caused. The regulations also clearly require reasonable accommodation for public passage along or to the river's edge, which is not contemplated in the ENF. We expect to see these critical omissions addressed in the waterways license application.

Response:

The Proponent acknowledges Section 9.35(4) of the Chapter 91 regulations which requires water dependent use projects located on Commonwealth Tidelands to provide compensation to the public for interfering with its broad rights to use such lands for any lawful purpose. Under existing conditions, users of the Dr. Paul Dudley White bike path and the general public are able to access and walk along the waterfront to the west and east of the boathouse within the Project Site, which is located within the broader Charles River Basin reservation.

The Proponent is committed to ensuring that the Project complies with all Chapter 91 regulatory standards, and will provide appropriate mitigation that will facilitate appropriate public access to and along the waterfront.



Additionally, the Proponent is committed to ensuring that the Project will enhance, and will not impede navigation and use along the Charles River. Additional details will be provided in the waterways license application.

The Proponent looks forward to working with the CRWA, MassDEP Waterways and other stakeholders to address these concerns as the Project advances through the Chapter 91 Licensing process.

MassDEP Waterways

Comment:

This regulation requires water dependent use projects located on Commonwealth Tidelands to provide compensation to the public for interfering with its broad rights to use such lands for any lawful purpose. The evaluation of applicability of and compliance with this regulation does not appear to be an accurate assessment, and the Department recommends coordination with staff prior to finalizing project design details and/or filing a license application.

Response:

The Proponent acknowledges Section 9.35(4) of the Chapter 91 regulations which requires water dependent use projects located on Commonwealth Tidelands to provide compensation to the public for interfering with its broad rights to use such lands for any lawful purpose. Under existing conditions, users of the Dr. Paul Dudley White bike path and the general public are able to access and walk along the waterfront to the west and east of the boathouse within the Project Site, which is located within the broader Memorial Drive Esplanade.

The Proponent is committed to ensuring that the Project complies with all Chapter 91 regulatory standards, and will provide appropriate mitigation that will facilitate appropriate public access to and along the waterfront.

The Proponent looks forward to working with the CRWA, MassDEP Waterways and other stakeholders to address these concerns as the Project advances through the Chapter 91 Licensing process.

Comment:

The WRP recognizes that certain areas will not be accessible during the construction activities associated with the project. However, on the Construction Plan included on page 43 of the filing (entitled "*Harvard and Radcliffe Rowing Facilities, Weld Building, 6/30/21*"), the WRP notes that the construction perimeter fencing closes off all pedestrian access on the northeastern edge of the project site, which has the effect of narrowing pedestrian access along the walkway on the DCR land to 4'-6". Given the extremely active use of this pathway by pedestrians, the WRP strongly recommends revising the perimeter to allow a minimum safe passage width of 10'-0".

Response:

The Proponent appreciates this comment and agrees that the Dr. Paul Dudley White bike path is a heavily traveled pedestrian thoroughfare. The Proponent is committed to developing a construction management plan that will maintain public safety while preserving appropriate public access to the Esplanade and the waterfront during construction.



Comment:

The Waterways License Application for the boathouse and dock should include an assessment of potential impacts to navigation in the Charles River and to public access along the shoreline during the active construction period and a description of measures designed to avoid minimize such impacts. At a minimum, mitigation measures are anticipated to include signage, temporary walkways (if needed) and lighting on any barge or other temporary obstruction to navigation.

Response:

The Proponent appreciates this comment. Additionally, the Proponent is committed to ensuring that the Project will enhance, and will not impede navigation and use along the Charles River. At this location in the lower basin, the Charles River is over 400 feet wide, and the boathouse only extends approximately 65 feet riverward of the seawall; preserving over 80% of the channel width for navigating past the boathouse. Therefore, the boathouse does not impinge on the channel width and does not interfere with navigation through this reach of the lower basin. Additional details will be provided in the waterways license application.