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September 20, 2019

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

PROJECT NAME : Fall River Waterfront Urban Renewal Plan  
PROJECT MUNICIPALITY : Fall River  
PROJECT WATERSHED : Taunton  
EEA NUMBER : 16080  
PROJECT PROPONENT : Fall River Redevelopment Authority  
DATE NOTICED IN MONITOR : August 21, 2019

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 plan **does not require** an Environmental Impact Report (EIR). I have also issued a Certificate today for the Fall River Downtown Urban Renewal Plan (URP) (EEA# 16081), which was reviewed currently with, and is located adjacent to the Waterfront URP.

MEPA review of the Environmental Notification Form (ENF) has provided an opportunity for State Agency and public comment prior to implementation of the *Fall River Waterfront Urban Renewal Plan* by the Fall River Redevelopment Authority (FRRA). The issues identified and guidance provided in this Certificate should assist the FRRA as it advances through State and local approval processes. Privately developed projects within the planning area may be subject to individual MEPA review should they exceed MEPA thresholds.

Project Description

As described in the ENF, the URP consists of a series of public actions to facilitate implementation of the URP in accordance with MGL c.121B. The URP is a 20-year planning document. It describes a number of improvements primarily proposed within three targeted areas: the Southern Waterfront Area, clustered around Battleship Cove and the Braga Bridge; the

Central Waterfront Area including the water's edge, the Davol Street/Route 79/rail corridor and abutting neighborhoods; and the Northern Waterfront Area, including the 50-acre former Shell Oil site and abutting parcels. The primary purpose of the URP is to redevelop vacant land that will be created by the realignment of the Route 79/Davol Street corridor and link the new development to the waterfront and adjacent neighborhoods. This roadway realignment is proposed by the Massachusetts Department of Transportation (MassDOT) and is in the planning process. The URP identified acquisition of the land from MassDOT, reparcelization of the land into developable parcels, and disposition of the parcels to one or more private developers to construct buildings, landscaping, and public/private open space. The URP identified potential development areas, community development goals and objectives, and conceptual approaches to development. In addition, it identified a series of public improvements to roadways, open space, waterbodies, and streetscapes, as well as selective demolition/site preparation work that will be undertaken by the FRRA to support private redevelopment initiatives. Specifically, the URP proposed the following activities and public improvements:

- Southern Waterfront Area:
  - Acquisition and disposition of underutilized buildings and land necessary to implement improvements under Braga Bridge;
  - Partner with MassDOT to implement concepts introduced in their Infra-Space proposal under Braga Bridge and with local property owners to establish pedestrian and bike connectivity between the two sides of the bridge;
  - Improve visual access to Firestone Pond and physical access to Crab Pond; and
  - Improve visibility and access to the Quequechan River through evaluating opportunities for additional daylighting and enhancement of public access to the Quequechan River falls that are exposed at two locations in the Iron Works Mill Complex.
- Central Waterfront Area
  - Acquisition and disposition of approximately 10 acres from MassDOT that will become available upon completion of the Route 79/Davol Street realignment project, reparcelization, and disposition of the parcels to private developers to create a neighborhood and new connections to the waterfront;
  - Integration of streetscape improvements and realignments of City streets to ensure safe connections to the realigned Route 79/Davol Street corridor.
- Northern Waterfront Area
  - Acquisition, reparcelization, and disposition of parcels, including the approximately 50-acre former Shell Oil Site area.

The URP also proposed the following public actions that are located within the URP area but outside the three areas described above:

- Land acquisition and disposition to support the proposed South Coast Rail commuter platform, including partnering with MassDOT to construct public parking on North Main Street consisting of surface parking or a parking garage with ground floor retail;

- Land acquisition and disposition of a cluster of mills on the Western Fall River Expressway to create a link between the Central Waterfront and North Waterfront Areas; and
- Acquisition of land to extend Bicentennial Park Trail/Waterfront Boardwalk along the waterfront and Remington Avenue Pier.

The ENF identified 5 state-owned parcels<sup>1</sup> totaling 12.29 and 43 privately-owned parcels totaling approximately 137 acres which will be acquired by the FRAA. The purpose of the acquisition is to create disposition parcels that could be redeveloped by private parties. The URP described construction of 40 new buildings, rehabilitation of 2 buildings, and creation of open space/recreation areas on the parcels.<sup>2</sup> The URP also identified 33 parcels for spot clearance. The FRAA will act as master developer for the parcels identified for acquisition and will dispose of parcels to developers by sale or lease to be redeveloped according to the goals of this Plan. The FRAA may also conduct site preparation, spot demolition, and environmental remediation activities to incentivize private investment and redevelopment of the URA.

### Study Area

The Urban Renewal Area (URA) is located along a three-mile stretch of the Taunton River and is generally bounded by Sidney Street to the north, North Main Street and Route 79 to the east, railroad tracks north of William Street to the south, and the Taunton River to the west. The study area is comprised of 625 parcels that total approximately 325 acres. Approximately 80% of the structures within the URA were constructed prior to 1940 and the majority of structures likely contain lead paint and asbestos due to their age. Land uses within the URA include residential, commercial, industrial, and institutional. The URA contains approximately seven open space areas that total approximately 38 acres. The majority of roadways within the URA are under local jurisdiction, with the exception of Interstate-195 (I-195), Route 79, and Route 6. Notably, Route 79 which is elevated and proposed to be realigned to street level, runs parallel to the Taunton River and creates a physical barrier between the City and the waterfront. It isolates the waterfront from downtown and other neighborhoods as there are limited connections to cross the roadway underneath it. The realignment project is anticipated to relieve this condition. Public transportation within the URA is limited; the area is served by one bus route (route 2). There is no commuter rail service in Fall River at this time; however, two rail stations and a layover facility are planned as part of the South Coast Rail Project (EEA# 14346). The Fall River Downtown URP is located adjacent and to the east of the URA.

The URA is predominantly characterized by developed, impervious areas. Waterbodies within the URA include the Taunton River (north of the Braga Bridge) and Mount Hope Bay (south of the Braga Bridge). The area west of Route 79 is located within a designated Velocity Zone (VE Zone) (areas subject to inundation by the 1-percent-annual-chance flood event with additional hazards due to storm-induced velocity wave action). The URA contains tidelands subject to Chapter 91 (c. 91) jurisdiction pursuant to the Waterways Regulations (310 CMR 9.00). Portions of the URA are located within the Mount Hope Bay Designated Port Area (DPA).

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<sup>1</sup> This assumes that the 10 acres created by the realignment of Route 79/Davol Street will be a single parcel. The actual number of parcels is not identified because the project is still being designed.

<sup>2</sup> These estimates exclude the land that will be created by the realignment of Route 79/Davol Street as the project is still being designed.

The URA contains numerous structures and districts listed in the State and National Registers of Historic Places and the Massachusetts Historical Commission's (MHC) *Inventory of Historic and Archaeological Assets of the Commonwealth* ("the Inventory"). The URA also contains properties regulated under the Massachusetts Contingency Plan (MCP, 310 CMR 40.0000). The URA does not contain rare species habitat or Areas of Critical Environmental Concern (ACEC).

### Environmental Impacts and Mitigation

The URP does not propose specific development projects; it is a planning document that will guide implementation of the City's redevelopment goals for the area. However, the FRRA has proposed a series of public improvements to open space and infrastructure to facilitate implementation of the URP. The environmental impacts associated with these public improvements are expected to be limited in nature and generally confined to the construction period. MEPA review may be required for individual projects within the URA.

Measures to avoid, minimize, and mitigate environmental impacts will include construction period erosion and sedimentation controls, creation of landscaped areas and open space, and streetscape improvements. Additionally, the FRRA anticipates that development projects will construct stormwater management systems in accordance with State and local requirements.

### Jurisdiction and Permitting

The URP is undergoing MEPA review and requires an ENF pursuant to 301 CMR 11.03(1)(b)(7) of the MEPA regulations because it requires an Agency Action and approval in accordance with MGL c.121B of a new Urban Renewal Plan. The project requires approval of the URP from the Department of Housing and Community Development (DHCD) and Land Transfers from the Commonwealth.

Individual projects within the URA may require Orders of Condition from the Fall River Conservation Commission, or in the case of an appeal, Superseding Orders of Condition from the Massachusetts Department of Environmental Protection (MassDEP). The Taunton River and DPA are subject to the requirements of Chapter 91 (c. 91) and subsequent projects could require a c. 91 license from MassDEP. Some projects identified in the URP may require a National Pollutant Discharge Elimination System (NPDES) Permit from the U.S. Environmental Protection Agency (EPA) for stormwater discharges from a construction site of over one acre.

The project requires Land Transfers from State Agencies, will be undertaken by a municipal redevelopment authority acting in accordance with MGL 121B, and may be funded through grants or loans from State Agencies. Therefore, MEPA jurisdiction for this project is broad and extends to all aspects of the project that are likely, directly or indirectly, to cause Damage to the Environment as defined in the MEPA regulations.

## Review of the ENF

The ENF included a description of existing and proposed conditions for the area and existing conditions plans depicting environmental resources, existing land uses, and areas for public improvements by the FRRRA. The ENF generally characterized potential environmental impacts associated with implementation of the URP and provided a schematic build-out analysis for parcels that may be developed by private parties. The ENF addressed land ownership, the age and condition of structures, and zoning. The ENF identified the goals of the URP, including:

- Activation of the waterfront with new residential, retail, and commercial uses;
- Physical connection of the existing neighborhoods to the waterfront;
- Provision of new multifamily housing to supplement older housing stock; and
- Provision of new space for office, retail, and other commercial uses to supplement the older spaces offered in the Downtown.

The URP indicated the City intends to revise the zoning within the URA to increase residential density, supporting commercial and retail uses, the proposed South Coast Rail Station, and to remove uses that do not support the goals and objectives of the URP. The URP also established Design Guidelines that will apply to redevelopment within the URA to ensure that the public realm and streetscape is enhanced as private property is redeveloped. Comments from State Agencies are generally supportive of the URP and do not request additional analysis of alternatives. Comments from MassDEP, MassDOT, Department of Energy Resources (DOER), and Office of Coastal Zone Management (CZM) identify issues that the FRRRA should consider as private or public/private development initiatives are advanced within the URA. I note comments from MassDEP also identify proximate Environmental Justice (EJ) communities and provides contact information for and recommends enhanced outreach to local advocacy groups and EJ leaders as individual projects are developed.

### *Buildout Analysis*

The ENF included an analysis of buildout based on conceptual planning. The size of buildings and parking estimates were based on the City's Zoning Bylaw and a recent parking study. Traffic generation estimates were calculated using Institute of Transportation Engineers' (ITE) data based on land use. Water and wastewater generation rates were estimated based on MassDEP Title 5 data. Estimated overall buildout includes 985,000 sf (7 million sf total), 1,450 new parking spaces, 12,082 new average daily vehicle trips (adt), and an increase of 252,000 gallons per day (gpd) and 229,091 gpd of water demand and wastewater generation respectively.

### *Land Transfer*

The URA (Table 2-2) identified five parcels currently owned by the Commonwealth for acquisition, as summarized in the table below.

Parcel ID	Address	Agency	Size (acres)
S-21-0013	Davol Street	MA Department of Public Works (DPW)	0.14
S-21-0001	Davol Street	Commonwealth of MA (n.s.)	0.26
N-16-0032	Central Street	Department of Environmental Management (DEM)	1.18
N-12-0011	30 Pond Street	Department of Conservation and Recreation (DCR)	0.71
None	Route 79/Davol Street	MassDOT	10.0
<b>TOTAL</b>			<b>12.29 acres</b>

Based on preliminary research performed by DCR<sup>3</sup>, the first four parcels identified in the table were subject to takings made by the MA DPW for highway purposes and appear to be owned by MassDOT. The FRRA should consult with MassDOT and DCR to confirm the ownership of these parcels and whether they are subject to Article 97 of the Amendments to the Massachusetts Constitution. A defining feature of the plan includes connecting the area south of Braga Bridge to DCR's Heritage State Park, located north of the bridge. The FRRA should consult with DCR regarding any plans that may affect DCR parkland and should determine whether plans would be subject to Article 97 of the Amendments to the Massachusetts Constitution. If the project will impact DCR parkland protected by Article 97, the FRRA should address consistency with the EEA Article 97 Policy and determine whether proposed uses or improvements would require legislative approval. I encourage the FRRA to consult with DCR's Land Protection Program to confirm the public rights of way in relation to the Fall River Heritage State Park.

The ENF identified an additional parcel owned by DCR for acquisition (Parcel O-19-001, 2.2 acres). Supplemental information provided by the FRRA's consultant clarified that the URP does not identify it as an acquisition.<sup>4</sup>

#### *Land Alteration/Stormwater*

The URA is predominantly developed, paved, or occupied by structures. Proposed land alteration will primarily be limited to demolition or reconstruction of existing buildings and pavement, or disturbance of areas that were previously altered. According to the ENF, stormwater within the URA is collected by a combined system and is discharged via combined sewer overflows (CSOs) to the Taunton River and Mount Hope Bay. The ENF indicated the City is implementing a CSO Abatement Plan and identified planned improvements at the Alton Street CSO and City Pier CSO. As part of the public and private redevelopment of the study area, I encourage the City to implement Low Impact Development (LID) techniques and Best Management Practices (BMPs) to minimize stormwater impacts and erosion and sedimentation during construction.

<sup>3</sup> Email forwarded from Nat Tipton (DCR) to Page Czepiga (MEPA Office) on 9/17/19.

<sup>4</sup> Email sent 9/9/19 from Emily Innes, (Harriman, Inc.) to Page Czepiga (MEPA Office).

*Wetlands/Waterways*

Wetland resource areas within the URA include Bank, Riverfront Area, and Bordering Land Subject to Flooding (BLSF) associated with Taunton River and Mount Hope Bay. Remediation work, site preparation and/or construction in these locations will be subject to review by the Fall River Conservation Commission to ensure compliance with the Wetlands Protection Act (WPA), the Wetlands Regulations (310 CMR 10.00) and associated performance standards, including the stormwater management standards.

The URA includes several c.91 jurisdictional areas, including flowed tidelands of the Taunton River, filled tidelands, and the Mount Hope DPA. While no specific development plans are proposed, a primary goal of the URP is to activate the waterfront with residential, retail, and commercial uses. I refer the FRRA to comments from MassDEP which note that nonwater-dependent uses proposed within c. 91 jurisdictional areas would be required to provide greater benefits to offset those that are detrimental to the public's rights in tidelands. I refer the FRRA to comments from CZM that note a Municipal Harbor Plan can be used to provide flexibility under the c. 91 process and offer technical assistance and permitting guidance to the FRRA.

*Water and Wastewater*

Build-out of the URA will increase water demand and wastewater generation by 252,000 gpd and 229,091 gpd (respectively). I refer FRRA to comments from MassDEP which recommend that future development incorporate water conservation measures and other BMPs to mitigate the additional water demand. As noted above, the City operates a combined wastewater and stormwater utility. I encourage the FRRA to evaluate opportunities for implementing sewer separation projects concurrently with streetscape and roadway improvements.

*Traffic and Transportation*

The URP includes streetscape improvements, including realignment of streets to provide safe connections to the realigned Route 79/Davol Street. The FRRA should continue to evaluate the enhancement of pedestrian and bicycle accommodations throughout the URA. I note comments from MassDOT encourage the FRRA to install dedicated bike lanes on roadways that connect existing neighborhoods to the URA. Roadway improvements undertaken by the FRRA should be designed and constructed consistent with a Complete Streets approach that provides adequate and safe accommodations for all roadway users, including pedestrians and bicyclists. As recommended by MassDOT, the FRRA should encourage shared parking and otherwise manage existing parking so that the additional development will not result in a net increase in parking spaces.

*Historic Resources*

The ENF identified the presence of historic resources within the URA including 88 properties listed in the Inventory, of which 41 are also listed in the National Register of Historic Places. The URP proposes enhancement of the historic character through reuse of buildings where feasible, and rehabilitation in a manner that preserves the historic façade and

characteristics of the buildings. Projects undertaken by the FRAA, acting under M.G.L. c. 121B, are subject to review by MHC pursuant to M.G.L. Chapter 9, Sections 26-27c, as amended (950 CMR 71.00). The ENF indicated that individual project review will include coordination with MHC to determine potential impacts to historic resources prior to the start of any demolition, rehabilitation, or construction activities.

#### *Greenhouse Gas (GHG) Emissions*

I encourage the City to become a designated Green Community pursuant to the Green Communities Act of 2008. As a Green Community, the City would be eligible for grants and technical assistance to improve energy efficiency and increase the use of renewable energy in public buildings and facilities. I strongly encourage the City to consider how design and construction of infrastructure could support energy efficiency, reduce GHG emissions, and provide resiliency to the effects of climate change. I refer the FRAA to DOER's comment letter which provides guidance on how development within the URA can achieve greater reductions in GHG emissions, use financial incentives to lower construction costs, ensure lower energy costs for residents on a long-term basis, and increase the resiliency of the buildings. I encourage the City to consult with the DOER Green Communities Regional Coordinator regarding these opportunities.

#### *Climate Change Adaptation and Resiliency*

The URP indicated that the majority of the URA west of Route 79 is located within the 100-year flood zone, with additional hazards due to storm-induced velocity wave action and sea level rise. Additionally, the URA currently experiences flash flooding during intense precipitation events. The URP did not provide an analysis of vulnerabilities of the URA to the potential effects associated with climate change, including sea level rise, increased frequency and intensity of precipitation events, and extreme heat events. The City should evaluate and plan for these expected impacts before this area is redeveloped. I encourage the City to conduct a vulnerability analysis of buildings and infrastructure in the URA to climate change related impacts and refer the FRAA to comments from CZM which identifies their willingness to provide assistance related to resiliency planning.

The City has been designated as a participating community in the Commonwealth's Municipal Vulnerability Preparedness (MVP) program which provides support for the process of planning for climate change resiliency. Through the MVP program, the City received funding to conduct a planning process for climate change resiliency and implementing priority projects. The results of the initial community-driven process were presented in the "*Community Resiliency Building Workshop – Summary of Findings Report*" (dated June 2019). The Report identified urban flooding caused by lack of green infrastructure and insufficient capacity within the combined system as a key infrastructure concern. The URP acknowledged the need to address flash flooding under current conditions. I encourage the Town to use the findings of its MVP planning study to guide sustainable and resilient development.

### *Hazardous Materials*

The URA contains multiple properties currently or formerly under review pursuant to the MCP. The majority of properties have achieved a Permanent Solution under the MCP. The URP identified one Tier II site (Bicentennial Park), three sites with Activity and Use Limitations (AULs) (1082 Davol Street, Braga Bridge Facility #138, and Hathaway Street Substation), and three sites with ongoing monitoring or remediation (City Pier, the former Shell Oil site, and the Cocoa Cola bottling Site). Site assessment and remediation activities may be required. If oil and/or hazardous materials are found during construction, the Proponent should notify MassDEP in accordance with the MCP. Excavation, removal, and/or disposal of contaminated soil, pumping of contaminated groundwater, or working on contaminated media must be done under the provisions of MGL c.21E.

### *Construction Period*

The public actions undertaken by the FRRA to support the URP will result in temporary impacts associated with construction or demolition activity (e.g., noise, fugitive dust, etc.) and minor impacts to traffic and pedestrian flow during streetscape and roadway improvements. The FRRA should implement BMPs to reduce construction period impacts (e.g., dust control, signage, detours, etc.). All construction and demolition should be managed in accordance with applicable MassDEP Solid Waste and Air Pollution Control regulations pursuant to M.G.L. c.40, §54. I encourage the FRRA to require contractors to use construction equipment with engines manufactured to Tier 4 federal emissions standards and limit excessive idling during the construction period. If a piece of equipment is not available in the Tier 4 configuration, the FRRA should consider use of construction equipment that has been retrofitted with the best available after-engine emissions control technology to reduce exhaust emissions. All construction activities should be undertaken in compliance with the conditions of all State and local permits.

### Conclusion

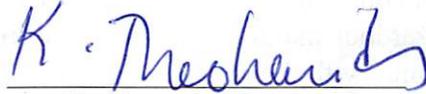
The URP is a planning document. Based on the very conceptual nature of the URP, sufficient information is not available at this time to determine whether potential projects will be subject to independent MEPA review or would require the filing of a Notice of Project Change (NPC). The ENF has sufficiently defined the nature and general elements of the URP for the purposes of MEPA review. Based on review of the ENF and comments received, and in consultation with State Agencies, I have determined that no further MEPA review of the URP is required.

The ENF indicates that implementation of the URP is anticipated to occur in phases over a period of twenty years based on priorities and anticipated funding. The URP does not identify partnerships with private entities or projects that are ready to proceed. In determining whether a Project is subject to MEPA jurisdiction or meets or exceeds any review thresholds, and during MEPA review, the entirety of the Project is considered, including any likely potential expansion, and not separate phases or segments thereof. The following criteria are considered to determine whether the various work or activities constitute one project, including, but not limited to:

whether the work or activities, taken together, comprise a common plan or independent undertakings, regardless of whether there is more than one Proponent; any time interval between the work or activities; and whether the environmental impacts caused by the work or activities are separable or cumulative. If build-out activities (other than the public actions described herein) are proposed in the next five years, the FRRA, City, and/or future developer should consult with the MEPA Office regarding whether a NPC or ENF is required.

September 20, 2019

Date



Kathleen A. Theoharides

Comments received:

- 09/03/2019 Coastal Zone Management (CZM)
- 09/10/2019 Massachusetts Department of Transportation (MassDOT)
- 09/10/2019 Massachusetts Department of Environmental Protection (MassDEP)
- 09/16/2019 Department of Energy Resources (DOER)

KAT/PRC/prc



THE COMMONWEALTH OF MASSACHUSETTS  
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## MEMORANDUM

TO: Kathleen A. Theoharides, Secretary, EEA  
ATTN: Page Czepiga, MEPA Office  
FROM: Lisa Berry Engler, Director, CZM  
DATE: September 3, 2019  
RE: EEA 16080, Fall River Waterfront Urban Renewal Plan Environmental Notification Form; Fall River



The Massachusetts Office of Coastal Zone Management (CZM) has completed its review of the above-referenced Environmental Notification Form (ENF), noticed in the *Environmental Monitor* dated August 21, 2019, and has the following comments on the proposed project.

### Project Description

The proposed project is an urban renewal plan for the Fall River Waterfront along the Taunton River. The planning area is approximately three miles long and reaches from Sidney Street (near the Shell Oil site) in the North to near William Street in the South. The Fall River Waterfront Urban Renewal Plan (Plan) does not currently propose specific development projects. When specific projects are proposed in the future, either the Fall River Redevelopment Authority or the project developer will file a Notice of Project Change (NPC) for each project as may be required by MEPA thresholds. The overall purpose of the Plan is to document current conditions and to present a general plan for the area for the next 20 years. Currently, the Massachusetts Department of Transportation is redesigning Route 79 in the planning area. Implementation of this major roadway redesign will create significant open land for development in the area and allow the reconnection of long-existing neighborhood to the waterfront.

### Comments

As the City of Fall River (City) moves forward over the coming 20 years with the implementation of its Waterfront Urban Renewal Plan, the following issues should be addressed as specific redevelopment and new development projects are being developed, proposed, and move forward to implementation.

While the Plan recognizes that a significant portion of the planning area is within the current FEMA 100-year Flood Zone, it does not recognize or discuss the likely expansion of the Flood Zone that may occur due to changes in sea levels over the Plan's 20-year life span, and more importantly over the much longer life-span of new buildings and infrastructure that are proposed in the Plan. Similarly, the City may benefit from the completion of a vulnerability analysis of existing buildings and infrastructure in the planning area to climate change related impacts. Rising sea levels, increasing flooding, increasing intensity and frequency of storm events, increasing temperatures and changes to precipitation patterns could significantly impact the Fall River Waterfront area over the next 50 to 100 years. The City should model and plan for these expected impacts before this area is redeveloped. Also, significant portions of the South Waterfront area are already in the FEMA-designated Velocity Zone, which is subject to damaging wave action during large coastal storms, and which will likely expand in the future.



The Plan recognizes that portions of the North Waterfront area, specifically portions of the former Shell Oil site, are within the Massachusetts Department of Environmental Protection's (MADEP) Chapter 91 Waterways jurisdiction and within a Commonwealth Designated Port Area (DPA). The Plan further recognizes that redevelopment in these areas will need to meet appropriate and relevant regulatory standards associated with these state jurisdictions. However, the Plan does not mention that the same state jurisdictions also cover significant portions of the South Waterfront area. These jurisdictions will affect the amount of allowable supporting commercial uses for specific sites. In certain situations a State-approved Municipal Harbor Plan can often be used to provide more flexibility under the MADEP Chapter 91 licensing process. CZM is available to provide technical assistance relating to understanding and planning for the impacts relating to climate changes as well as the potential regulatory implications of the DPA and Chapter 91 jurisdictions.

#### **Further CZM Review**

Because of its general nature, this Plan is not subject to CZM federal consistency review. However, as specific projects are developed to implement the Plan, some of those specific projects may be subject to CZM federal Consistency review and may need to be found consistent with CZM's enforceable program policies. For further information on this process, please contact Bob Boeri, Project Review Coordinator, at 617-626-1050 or visit the CZM web site at [www.mass.gov/czm](http://www.mass.gov/czm).

LBE/dsj/rlb

cc: Jasiel F. Correia II, Mayor,  
City of Fall River  
Kara O'Connell, Chairman  
Fall River Redevelopment Authority  
William D. Roth, Director of Planning/City Planner,  
City of Fall River  
Maggie Schmitt, Urban Renewal and Relocation Coordinator,  
Massachusetts Department of Housing and Community Development  
Christine Hopps, Assistant Director Waterways Program, Boston  
Massachusetts Department of Environmental Protection



Charles D. Baker, Governor  
Karyn E. Polito, Lieutenant Governor  
Stephanie Pollack, MassDOT Secretary & CEO



September 10, 2019

Kathleen Theoharides, Secretary  
Executive Office of Energy and Environmental Affairs  
100 Cambridge Street, Suite 900  
Boston, MA 02114-2150

RE: Fall River: Fall River Waterfront Urban Renewal Plan – ENF  
(EEA # 16080)

ATTN: MEPA Unit  
Page Czepiga

Dear Secretary Theoharides:

On behalf of the Massachusetts Department of Transportation, I am submitting comments regarding the Fall River Waterfront Urban Renewal Plan in Fall River, as prepared by the Office of Transportation Planning. If you have any questions regarding these comments, please contact J. Lionel Lucien, P.E., Manager of the Public/Private Development Unit, at (857) 368-8862.

Sincerely,

David J. Mohler  
Executive Director  
Office of Transportation Planning

DJM/jll

cc: Jonathan Gulliver, Administrator, Highway Division  
Patricia Leavenworth, P.E., Chief Engineer, Highway Division  
Neil Boudreau, Assistant Administrator of Traffic and Safety Engineering  
Mary Joe Perry, District 5 Highway Director  
Southeast Regional Planning and Economic Development District  
Southeastern Regional Transit Authority  
Department of Community Services, City of Fall River  
PPDU Files



Charles D. Baker, Governor  
Karyn E. Polito, Lieutenant Governor  
Stephanie Pollack, MassDOT Secretary & CEO

**massDOT**  
Massachusetts Department of Transportation

## MEMORANDUM

TO: David J. Mohler, Executive Director  
Office of Transportation Planning

FROM: J. Lionel Lucien, P.E., Manager  
Public/Private Development Unit

DATE: September 10, 2019

RE: Fall River Waterfront Urban Renewal Plan  
(EEA #16080)

The Public/Private Development Unit (PPDU) has reviewed the Environmental Notification Form (ENF) for the proposed Fall River Waterfront Urban Renewal Plan (URP) for the Waterfront Area of Fall River. The URP encompasses 770 acres, with approximately 550 acres on land. The area is bounded by Sidney Street, William Street, North Main Street, Route 79, and the Taunton River. The existing uses of the area are a combination of residential, commercial, industrial, institutional, and open space.

The Fall River Waterfront Area (URA) is considered an Urban Renewal and Decadent Area in accordance with M.G.L. c. 121B, with qualifying conditions that include unsuitable physical and environmental conditions for development, obsolete or out of repair buildings, an abundance of untaxed vacant or foreclosed buildings, and irregular or faulty lot divisions. The goal of the URP is to physically connect existing neighborhoods to the waterfront with the proposed realignment of Route 79 and to activate the waterfront with new residential, recreational, retail, and commercial uses.

The Fall River Waterfront Urban Renewal Plan will be implemented over a 20-year period, and the establishment of the URP itself would not exceed any specific MEPA and Environmental Impact Report thresholds. Specific projects within the URP may individually exceed MEPA thresholds and would require separate filings and be subject to review and comment. If transportation thresholds are exceeded for a specific project, the MEPA filing should include a Transportation Impact Assessment (TIA) prepared in conformance with the current MassDOT/EOEEA *Transportation Impact Assessment Guidelines*.

We offer the following comments relative to the establishment of the URP:

### Transit Improvements

The URA is intersected by three major roadways: Interstate 195, US Route 6, and State Route 79. The URA's transportation network includes two major bridges, Braga Bridge and the Veterans Memorial Bridge (Route 6), and is home to a state-owned rail corridor, which runs parallel to Route 79. State Route 79, which is currently elevated and proposed to be realigned to

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Tel: 857-368-4636, TTY: 857-368-0655  
[www.mass.gov/massdot](http://www.mass.gov/massdot)

street level, runs the length of the waterfront in the URA and poses a physical barrier with limited connection to cross the roadway underneath it, isolating the waterfront area from downtown and other neighborhoods. Within the URA, the Southeastern Regional Transit Authority (SRTA) operates ten bus routes through Fall River and two intercity routes to Swansea Mall and New Bedford. The buses are able to provide enough coverage of the city geographically, but hours of operation could be improved, with many routes stopping at 6 PM and no service on Sundays. There is currently no rail service that serves the URA, but two new stations and a layover facility is planned for Fall River as part of the South Coast Rail (SCR) project. Upon full completion of the SCR, Fall River may have additional service through an extension of the Stoughton Line. The City of Fall River is advised to consider expanding both the service and geographic reach of bus routes to access the URA and connect surrounding neighborhoods, especially ones lacking open or green space, with the revitalized waterfront area.

### Pedestrian and Bicycle Accommodations

The *2016 Southeastern Regional Planning and Economic Development District Regional Transportation Plan* notes that there are a number of dangerous intersections in Fall River with high pedestrian crash rates; six of the region's top ten pedestrian crash corridors intersect the nearby downtown area. We encourage the Proponent to address the safety issues at such intersections, ensure that all intersections within the URA have crosswalks, and prioritize one-way street conversions where needed to enhance pedestrian safety and improve accessibility to the waterfront area. In addition to the proposed extension of the Bicentennial Park Trail along the waterfront to the north, MassDOT encourages the Proponent to assess the feasibility of installing dedicated bike lanes on roadways that connect existing neighborhoods to the URA.

Any proposed mitigation within the state highway layout and all internal site circulation must be consistent with a healthy transportation design approach that provides adequate and safe accommodations for all roadway users, including pedestrians, bicyclists, and public transit riders. Guidance on healthy transportation design is included in the *MassDOT Project Development and Design Guide*. Where these criteria cannot be met, the Proponent should provide justification, and should work with the MassDOT Highway Division to obtain a design waiver.

### Parking

The Proponent should manage existing parking so that the additional development within the URA would not result in any net increase in parking. Where possible, the Proponent should work with private property owners who own abutting properties and compatible parking demands that do not conflict with each other to enter into shared use parking agreements. We recommend that no further environmental review be required based on transportation-related issues, but ask that the City of Fall River continue consulting with MassDOT and the SRTA on transportation and transit issues during the URP planning process. If you have any questions regarding these comments, please contact me at (857) 368-8862 or Michael Clark at (857) 368-8867.



Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

## Department of Environmental Protection

Southeast Regional Office • 20 Riverside Drive, Lakeville MA 02347 • 508-946-2700

Charles D. Baker  
Governor

Kathleen A. Theoharides  
Secretary

Karyn E. Polito  
Lieutenant Governor

Martin Suuberg  
Commissioner

September 10, 2019

Kathleen A. Theoharides  
Secretary of Energy and Environment  
Executive Office of Energy and  
Environmental Affairs  
ATTN: MEPA Office  
100 Cambridge Street, Suite 900  
Boston, MA 02114

RE: ENF Review. EOEEA 16080.  
FALL RIVER. Fall River Waterfront Urban  
Renewal Plan

Dear Secretary Theoharides,

The Southeast Regional Office of the Department of Environmental Protection (MassDEP) has reviewed the Environmental Notification Form (ENF) for the Fall River Waterfront Urban Renewal Plan, Fall River, Massachusetts (EOEEA #16080). The Project Proponent provides the following information for the Project:

**The general purpose of this Urban Renewal Plan is to identify current conditions that have been obstacles to private investment, determine the needs of the waterfront and the goals for its redevelopment, and define those actions that will create incentives for the private market, over time, to address the existing conditions.**

The primary purpose of this Urban Renewal Plan is to address the future development of the parcels created by the realignment of the current Route 79/Davol Street road and highway system, a Project under the purview of the Massachusetts Department of Transportation (MassDOT). Once the realignment is complete, approximately ten acres of land stretching along Fall River's waterfront will be available for development. This is an unprecedented opportunity for new development in the heart of the City that will achieve the following goals:

- Activation of the waterfront with new residential, retail, and commercial uses
- Physical connection of the existing neighborhoods to the waterfront
- The provision of new multifamily housing to supplement the City's existing older housing stock
- The provision of new space for office, retail, and other commercial uses to supplement the older spaces offered in the Downtown

To meet these goals, the FRRA will undertake the following actions:

- Acquisition of the new land from MassDOT

This information is available in alternate format. Contact Michelle Waters-Ekanem, Director of Diversity/Civil Rights at 617-292-5751.

TTY# MassRelay Service 1-800-439-2370  
MassDEP Website: [www.mass.gov/dep](http://www.mass.gov/dep)

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- **Reparcelization of the land into developable parcels**
- **Disposition of the parcels to one or more private developers who will undertake the activities necessary to add buildings, landscaping, and public/private open space • Control over the development by the use of a Land Disposition Agreement (LDA) and the design guidelines found in this Urban Renewal Plan**

### ***The Department's Comments/Guidance***

The MassDEP Southeast Regional Office appreciates the opportunity to comment as the City of Fall River prepares to fully define those projects that may fall within the regulatory jurisdiction of MassDEP. As there are no projects at this time, the Department's comments at this time of planning relate primarily to giving guidance as the City prepares to implement its plan for urban renewal.

At this time, the Department's comments relate primarily to the Department's expectations for Projects that fall within the regulatory jurisdiction of the following Bureaus: Water Resources, Waste Site Cleanup, and Air and Waste.

### ***Bureau of Water Resources (BWR) Regulatory Requirements:***

Projects that fall within the jurisdiction of MassDEP BWR are regulated under the following programs:

Wetlands and Waterways Program. The Wetlands and Waterways Program offers the following comments on the ENF submitted by the Fall River Redevelopment Authority to review the Waterfront Urban Renewal Plan.

*Wetlands Comments.* Projects that may alter a Wetland Resource Area either because the activity takes place inside the Resource Area or will potentially alter a Resource Area require the filing of a Notice of Intent (NOI) with the Fall River Conservation Commission under the Wetlands Protection Act - M.G.L c. 131 § 40 and its regulations (310 CMR 10.00). If the Project Proponent is unsure if the Project requires an NOI, a Request for the Determination of Applicability may be filed.

*Waterways Comments.* The Massachusetts Public Waterfront Act, Chapter 91, and its associated regulations at 310 CMR 9.00, seeks to ensure that the waterfront and waterways are used primarily for water-dependent uses. Examples of these types of uses would include commercial fishing, shipping, passenger transportation, boat yards, marinas, and other activities for which proximity to the water is essential or of great advantage. Another important aspect of Chapter 91 is to provide and promote public access to the waterfront for the use and enjoyment of waterways.

The scope of the Waterfront Urban Renewal Plan includes several Chapter 91 jurisdictional areas, including flowed tidelands of the Taunton River, filled tidelands and a Designated Port Area. While no specific development Projects are proposed in the ENF, a primary goal of the Plan is the activation of the waterfront with residential, retail, and commercial uses. These types of uses, if proposed, within Chapter 91 jurisdiction are generally considered nonwater-dependent and would be required to provide greater benefits to those that are detrimental to the public's rights in tidelands.

Within the area identified in the Waterfront Urban Renewal Plan, there are numerous existing Chapter 91 Licenses for structures along the Taunton River. For future development of sites with existing Chapter 91 Licenses, the Department will need to determine whether the license can be amended for the proposed use or whether a new Chapter 91 license application will be required.

Underground Injection Control. Projects that may fall under the jurisdiction of the Underground Injection Control Program include those that propose the installation of a comprehensive stormwater management system to collect, convey, treat and control stormwater discharges associated with the Project. The Project Proponents should be aware that the conveyances of stormwater through underground stormwater infiltration structures are subject to the jurisdiction of the MassDEP *Underground Injection Control (UIC)* program. These structures must be registered with MassDEP UIC program through the submittal of a BRP WS-06 UIC Registration application through MassDEP's electronic filing system, eDEP. The statewide UIC program contact is Joe Cerutti, who can be reached at (617) 292-5859 or at [joseph.cerutti@state.ma.us](mailto:joseph.cerutti@state.ma.us). All information regarding on-line (eDEP) UIC registration applications may be obtained at the following web page under the category "Applications & Forms": <https://www.mass.gov/underground-injection-control-uic>.

Construction Stormwater Permit. Construction activities that are scheduled to disturb more than 1.0 acre of land may require an EPA National Pollution Discharge Elimination System (NPDES) Stormwater Permit for their proposed construction activities. The Project Proponent can access information regarding the NPDES Stormwater requirements and an application for the Construction General Permit at this EPA website: [https://www.epa.gov/sites/production/files/2017-07/documents/cgp\\_flow\\_chart\\_do\\_i\\_need\\_a\\_permit2.pdf](https://www.epa.gov/sites/production/files/2017-07/documents/cgp_flow_chart_do_i_need_a_permit2.pdf)

Project Proponents should also determine if any of the following U.S. EPA NPDES permits are necessary, prior to commencing Project construction:

- Dewatering General Permit - <https://www.epa.gov/npdes-permits/dewatering-general-permit-dgpmassachusetts-new-hampshire>.
- Remediation General Permit - <https://www.epa.gov/npdes-permits/remediation-general-permit-rgpmassachusetts-new-hampshire>.
- Additional information regarding these permits may be found at: <http://www.epa.gov/region1/npdes/stormwater/assets/pdfs/CGP-DGP-RGP-Flow-Chart.pdf>

U.S. EPA NPDES Multisector General Permit (MSGP) for Industrial Stormwater. Material handling and storage, equipment maintenance and cleaning, and other activities at industrial facilities are often exposed to precipitation events. Runoff from rainfall or snowmelt that comes in direct contact with these activities can pick up pollutants and transport them directly to a nearby river, lake, or coastal water and/or indirectly transport them to a storm sewer where its discharge degrades water quality.

The USEPA is the NPDES permitting authority in the Commonwealth. Federal regulations at 40 CFR 122.26(b)(14)(i)-(xi) require stormwater discharges, associated with specific categories of industrial activity, to be covered under an EPA NPDES MSGP, unless otherwise excluded. These industries, identified by their associated Standard Industrial Classification (SIC), include the manufacturing or processing of food products and the manufacture of textile products. Note that when a facility is able to prevent the exposure of all relevant activities and materials to precipitation, it may be eligible to claim no exposure and qualify for a waiver from MSGP coverage.

EPA has developed a fact sheet for each of the 29 industrial sectors regulated by the MSGP. Each fact sheet describes the types of facilities included in the sector, typical pollutants associated with

the sector, and types of stormwater control measures used to minimize the discharge of the pollutants.

The fact sheets can be found at: <https://www.epa.gov/npdes/stormwater-discharges-industrial-activities#factsheet>

Drinking Water Program. The Drinking Water Program does not anticipate any state-jurisdictional permits. However, a Project Proponent will need local review and approval from the City's water department regarding such things as: (a) water availability, using existing source water pumping capacity and as allowed by the City's Water Management Act permit; (b) pipeline tie-in; (c) onsite potable water piping network design; (d) contaminant sampling results; and (e) cross-connection control protection. The City of Fall River Water Department will need to conduct a cross-connection control survey of all its facilities prior to or in conjunction with water activation. Please refer to 310 CMR 22.22 for more information regarding cross-connection control requirements.

Water Management Act Program. MassDEP suggests that all Proponents evaluate and implement conservation efforts that incorporate Best Management Practices (BMPs) at the Project site and restrict irrigation use when the City of Fall River implements nonessential outdoor water use restrictions. As always, MassDEP encourages Project Proponents that add additional demand to the public water system (PWS) to work with the PWS to mitigate the additional demands proposed by the Project.

Wastewater Management Program. The City of Fall River operates a combined wastewater and stormwater utility. Construction and development Projects are subject to Site Plan Review as described in The Code of the City of Fall River Massachusetts (the Code) Chapter 10, Article I. This review includes the wastewater and stormwater flow requirements and if the Project is subject to the Industrial Pretreatment Program. Wastewater connections are subject to Chapter 76 of the Code.

***Bureau of Water Resources (BWR) Compliance Questions***

If there are questions regarding BWR compliance, please contact Jonathan Hobill at (508) 946-2870.

***Bureau of Waste Site Cleanup (BWSC) Regulatory Requirements:***

The Waterfront Redevelopment Project area involves redevelopment of 770 acres of waterfront along more than three miles of the Taunton River. The proposed project area includes portions for the Taunton River as well as 566 acres of uplands. Please be advised that there are many BWSC disposal sites located within and adjacent to the proposed project area. Many of the sites have been closed under the MCP, but many other disposal sites are open and require continued response actions under the MCP. A listing and discussion of each MCP site will not be presented here, however, MassDEP maintains an on-line database for sites that have been reported to the Department and are going through or have completed the MCP cleanup process. MassDEP notes that the former Shell Terminal (Release Tracking Number [RTN] 4-0000749) is located in the northern section of the proposed redevelopment project. The 46.7-acre site is currently in Remedy Operation Status pursuant to the MCP, which includes recovery of non-aqueous phase liquids (NAPL). Response actions and submittal of status reports are required to continue at this site until a Permanent Solution is achieved. Be advised that in accordance with 310 CMR 40.0021, it is unlawful to interfere with ongoing MCP response actions.

The City Pier Site (RTNs 4-0010173, 4-0017012, 4-0018498, 4-0018690 and 4-0026556) is also located within the Waterfront Redevelopment Project area. Soil impacted with polychlorinated biphenyls (PCBs) were identified at this Site. The source of the contaminated soil has not been determined but is thought to have come from a local source. Adequate due diligence should be conducted to determine if any of the soil that may be excavated as part of this Waterfront Redevelopment Project is adequately evaluated to determine if it may have been impacted with oil and/or hazardous material. The cleanup of the City Pier Site is also regulated by the U.S. Environmental Protection Agency's Toxic Substance Control Act (TSCA) program.

Interested parties may view a map showing the location of BWSC disposal sites using the MassGIS data viewer (Oliver) at: [http://maps.massgis.state.ma.us/map\\_ol/oliver.php](http://maps.massgis.state.ma.us/map_ol/oliver.php) Under "Available Data Layers" select "Regulated Areas", and then "DEP Tier Classified 21E Sites". The compliance status and report submittals for specific MCP disposal sites may be viewed using the BWSC Waste Sites/Reportable Release Lookup at: <https://eeaonline.eea.state.ma.us/portal#!/search/wastesite>

*The Project Proponent is advised that if oil and/or hazardous material are identified during the implementation of this project, notification pursuant to the Massachusetts Contingency Plan (310 CMR 40.0000) must be made to MassDEP, if necessary. A Licensed Site Professional (LSP) should be retained to determine if notification is required and, if need be, to render appropriate opinions. The LSP may evaluate whether risk reduction measures are necessary if contamination is present. The BWSC may be contacted for guidance if questions arise regarding cleanup.*

***Bureau of Air and Waste (BAW) Regulatory Requirements:***

Projects that fall within the jurisdiction of MassDEP BAW are regulated under the following programs:

Air Quality Program. Construction and operation activities shall not cause or contribute to a condition of air pollution due to dust, odor or noise.

If a Project anticipates the construction of buildings that will have certain energy needs (i.e. heating, lighting, etc.), and these needs will be met through the combustion of liquid, gaseous, or solid fuels, then such systems may need a MassDEP permit, provided that the proposed equipment meets or exceeds certain energy input capacities. For example, boilers using distillate oil or natural gas with an energy input of ten million BTU per hour or greater are required to be permitted prior to installation. Boilers utilizing residual oil or used oil fuel are also required to obtain permits if their energy-input capacity equals or exceeds five or three million BTU, respectively. It should also be noted that there are permit thresholds for incinerators, stationary turbines, reciprocating engines, and other internal combustion engines (e.g. those associated with power generation units) that may or may not be applicable to your Project. The Project Proponent should refer to the Air Pollution Control Regulations (310 CMR 7.02) for a complete overview of the permitting thresholds associated with 310 CMR 7.00 if the Project proposes to meet certain on-site energy needs through combustion process.

In addition to certain *de minimus* thresholds for air plan approvals pursuant to 310 CMR 7.02, certain boilers are required to comply with the certification regulations pursuant to 310 CMR 7.26 and 310 CMR 70.00 et seq. The Proponent will need to distinguish which regulatory constraints any proposed boilers may need to address.

The construction activity must conform to current Air Quality Control Regulations. The Proponent should implement measures to alleviate dust, noise, and odor nuisance conditions, which may occur during the construction activities. Such measures must comply with MassDEP Bureau of Air and Waste Prevention (former BWP) Regulations 310 CMR 7.01, 7.09, and 7.10.

The MassDEP noise policy DAQC 90-001, dated February 1, 1990 establishes a guideline for enforcing its noise regulation at 310 CMR 7.10. The MassDEP policy considers a facility is in violation of the regulation 310 CMR 7.10 if the facility increases the broadband sound level by more than 10 dB (A) above ambient, or produces a “pure tone” condition. These criteria are measured at the facility’s property line and at the nearest inhabited residence. All activities at a facility must be in compliance with these criteria.

*Construction-Related Measures.* MassDEP requests that all non-road diesel equipment rated 50 horsepower or greater meet EPA’s Tier 4 emission limits, which are the most stringent emission standards currently available for off-road engines. If a piece of equipment is not available in the Tier 4 configuration, then the Proponent should use construction equipment that has been retrofitted with appropriate emissions reduction equipment. Emission reduction equipment includes EPA-verified, CARB-verified, or MassDEP-approved diesel oxidation catalysts (DOCs) or Diesel Particulate Filters (DPFs). The Proponent should maintain a list of the engines, their emission tiers, and, if applicable, the best available control technology installed on each piece of equipment on file for Departmental review.

*Massachusetts Idling Regulation.* MassDEP reminds the Project Proponents that unnecessary idling (i.e., in excess of five minutes), with limited exception, is not permitted during the construction and operations phase of the Project (310 CMR 7.11). With regard to construction period activity, typical methods of reducing idling include driver training, periodic inspections by site supervisors, and posting signage. In addition, to ensure compliance with this regulation once the Project is occupied, MassDEP requests that the Proponent install permanent signs limiting idling to five minutes or less on-site.

*Spills Prevention.* All projects should employ a spills contingency plan addressing prevention and management of potential releases of oil and/or hazardous materials from pre- and post-construction activities should be presented to workers at the site and enforced. The plan should include but not be limited to, refueling of machinery, storage of fuels, and potential on-site activity releases.

*Hazardous Waste Management.* Projects that generate hazardous waste and/or waste oil must register with the MassDEP or EPA to obtain a permanent identification number, as applicable, in accordance with 310 CMR 30.000 for legally generating and managing regulated waste. The Proponent is advised to consult this MassDEP website <https://www.mass.gov/guides/hazardous-waste-generation-generators> to determine if the Proponent qualifies as a generator of hazardous waste and/or waste oil.

*Gasoline Stations.* Projects proposing construction of new gasoline stations are reminded of the following requirements:

*Stage I and Stage II Vapor Recovery Systems.* Project Proponents are advised that MassDEP has recently revised the regulations regarding Stage I and Stage II vapor recovery systems. The new

regulations require enhanced Stage I equipment and no longer require the installation of Stage II equipment, per 310 CMR 7.00, 7.03 and 7.24

*Underground Storage Tanks (USTs).* The applicant as Owner and/or Operator of underground storage tanks (USTs) that store regulated substances, pursuant to M.G.L. c. 210, must comply with the requirements of M.G.L. c. 210, 527 CMR 1.00, 527 CMR 5.06 and 310 CMR 80.00. These requirements include, but are not limited to, system design, construction, installation and maintenance, UST system registration, third party inspections, release reporting, recordkeeping and UST operator training. Guidance can be found on-line at the MassDEP website: <https://www.mass.gov/guides/massdep-underground-storage-tank-ust-program>

Solid Waste Program. MassDEP Solid Waste offers Project Proponents the following comments regarding the management of solid waste/recyclable and asbestos materials generated from any project; pursuant to: (a) Massachusetts Solid Waste Regulations 310 CMR 16.00; (b) Site Assignment Regulations For Solid Waste Facilities, 310 CMR 19.000; and (c) Asbestos Regulations for solid waste management, 310 CMR 7.15.

Projects that generate waste materials that are determined to be solid waste (e.g., construction and demolition waste) and/or recyclable material (e.g., metal, asphalt, brick, and concrete) shall be disposed, recycled, and/or otherwise handled in accordance with the Solid Waste Regulations including 310 CMR 19.017: *Waste Bans*.

*Asphalt, Brick and Concrete (ABC).* Rubble, such as the rubble generated by the demolition of buildings or other structures must, be handled in accordance with the Solid Waste regulations. These regulations allow, and MassDEP encourages, the recycling/reuse of ABC rubble. The Proponent should refer to MassDEP's Information Sheet, titled "*Using or Processing Asphalt Pavement, Brick and Concrete Rubble, Updated February 27, 2017*", that answers commonly asked questions about ABC rubble and identifies the provisions of the solid waste regulations that pertain to recycling/reusing ABC rubble. This policy can be found on-line at the MassDEP website: <https://www.mass.gov/files/documents/2018/03/19/abc-rubble.pdf>

*Demolition and Asbestos Containing Waste Material.* Projects that include the demolition of structures which may contain asbestos are advised that demolition activity must comply with both Solid Waste and Air Quality Control regulations. Please note that MassDEP promulgated revised Asbestos Regulations (310 CMR 7.15) that became effective on June 20, 2014. The new regulations contain requirements to conduct a pre-demolition/renovation asbestos survey by a licensed asbestos inspector and post abatement visual inspections by a licensed asbestos project monitor. The Massachusetts Department of Labor and Work Force Development, Division of Labor Standards (DLS) is the agency responsible for licensing and regulating all asbestos abatement contractors, designers, project monitors, inspectors and analytical laboratories in the state of Massachusetts.

In accordance with the revised Asbestos Regulations at 310 CMR 7.15(4), any owner or operator of a facility or facility component that contains suspect asbestos containing material (ACM) shall, prior to conducting any demolition or renovation, employ a DLS licensed asbestos inspector to thoroughly inspect the facility or facility component, to identify the presence, location and quantity of any ACM or suspect ACM and to prepare a written asbestos survey report. As part of the asbestos survey, samples must be taken of all suspect asbestos containing building materials and sent to a DLS certified laboratory for analysis, using USEPA approved analytical methods.

If ACM is identified in the asbestos survey, the Proponent must hire a DLS licensed asbestos abatement contractor to remove and dispose of any asbestos containing material(s) from the facility or facility component in accordance with 310 CMR 7.15, prior to conducting any demolition or renovation activities. The removal and handling of asbestos from the facility or facility components must adhere to the Specific Asbestos Abatement Work Practice Standards required at 310 CMR 7.15(7). The Proponent and asbestos contractor will be responsible for submitting an *Asbestos Notification Form ANF-001* to MassDEP at least ten (10) working days prior to beginning any removal of the asbestos containing materials as specified at 310 CMR 7.15(6).

Project Proponents shall ensure that all asbestos containing waste material from any asbestos abatement activity is properly stored and disposed of at a landfill approved to accept such material in accordance with 310 CMR 7.15 (17). The Solid Waste Regulations at 310 CMR 19.061(3) list the requirements for any solid waste facility handling or disposing of asbestos waste. Pursuant to 310 CMR 19.061(3) (b) 1, no asbestos containing material; including VAT, asphaltic-asbestos felts or shingles; may be disposed at a solid waste combustion facility.

In accordance with the Air Quality Regulations at 310 CMR 7.09(2), the Proponent must submit a *BWP AQ 06 Notification Prior to Construction or Demolition* form to MassDEP for any construction or demolition of an industrial, commercial or institutional building or residential building with 20 or more dwelling units at least ten (10) working days prior to initiation of said construction or demolition project. The Proponent should propose measures to prevent or alleviate dust, noise, and odor nuisance conditions, which may occur during the demolition.

*Commercial Organic Material.* The Massachusetts Department of Environmental Protection (MassDEP) enforces solid waste regulations that restrict certain recyclable materials from disposal. Known as “waste bans,” these regulations (310 CMR 19.017) prohibit the disposal of recyclable materials as solid waste. As of 2014, commercial organic material (defined as disposal of one ton or more per week) has been added to the list of banned material. Please be advised that depending on the specifics of the owner/operator at your facility, you may be subject to the commercial organic material ban if more than one ton of commercial organic material is being disposed of from your facility per week. The ban is one of MassDEP’s initiatives for diverting at least 35% of all food waste from disposal statewide by 2020. Diverted food waste may be composted, converted to energy (through anaerobic digestion), recycled, or reused. Additional information on the Commercial Food Material Disposal Ban can be found at: <https://www.mass.gov/guides/commercial-food-material-disposal-ban>

#### ***Bureau of Air and Waste (BAW) Compliance Questions***

If there are questions regarding Solid Waste Management Program compliance, please contact Mark Dakers at (508) 946-2847 or Cynthia Baran at (508) 946-2887 for asbestos compliance. If there are other questions regarding Bureau of Air and Waste Compliance, please contact Dan DiSalvio at (508) 946-2878.

#### ***Climate Change / Greenhouse Gas (GHG) Emissions Comments:***

Pursuant to the Global Warming Solutions Act of 2008 (GWSA) (Chapter 298 of the Acts of 2008) and the Commonwealth’s Clean Energy and Climate Plan the Commonwealth has established economy-wide greenhouse gas (GHG) emission reduction limits for Massachusetts that will achieve reductions of 25 percent below statewide 1990 GHG emission levels by 2020 and 80 percent below statewide 1990 GHG emission levels by 2050. Furthermore, Section 7 of the GWSA amended

Section 61 of Chapter 30 of the Massachusetts General Laws by inserting, “in considering and issuing permits, licenses and other administrative approvals and decisions, the respective agency, department, board, commission or authority shall also consider reasonably foreseeable climate change impacts, including additional greenhouse gas emissions, and effects, such as predicted sea level rise.” The Proponent should consider potential GHG impacts (e.g., energy demand, use of renewable energy sources, transportation modes, etc.) of its project in the context of furthering the Commonwealth’s goals and recommended GHG mitigation policies in the *Clean Energy and Climate Plan for 2020*. Additional information on the Commonwealth’s efforts to reduce GHG emissions can be found at: <http://www.mass.gov/eea/air-water-climate-change/climate-change/massachusetts-global-warming-solutions-act/>;

*Climate Change – Adaptation.* Section 7 of the Global Warming Solutions Act of 2008 (GWSA) (Chapter 298 of the Acts of 2008), amended Section 61 of Chapter 30 of the Massachusetts General Laws by inserting, “in considering and issuing permits, licenses and other administrative approvals and decisions, the respective agency, department, board, commission or authority shall also consider reasonably foreseeable climate change impacts, including additional greenhouse gas emissions, and effects, such as predicted sea level rise.”

MassDEP recommends that the Proponent review and consider the data and recommendations identified in the 2011 Massachusetts Climate Change Adaptation Report issued by the Executive Office of Energy and Environmental Affairs (EEA) (<http://www.mass.gov/eea/docs/eea/energy/cca/eea-climate-adaptation-report.pdf>), the 2014 National Climate Assessment, specifically the Northeast region section, (<https://nca2014.globalchange.gov/>) and the 2017 U.S. Global Change Research Program Climate Science Special Report (<https://science2017.globalchange.gov/>) to address potential climate change impacts and adaptation measures feasible for implementation on the project site. MassDEP also recommends that you check the following link for updates to the Massachusetts State Hazard Mitigation and Climate Adaptation Plan (<https://www.mass.gov/files/documents/2018/10/26/SHMCAP-September2018-Full-Plan-web.pdf>) which is anticipated to be finalized in 2018. Once completed, this plan will include more usable data and information.

MassDEP also recommends consideration and evaluation of potential adaptation and resiliency mitigation measures identified in Appendix A of the MEPA Draft Climate Change Adaptation and Resiliency Policy, as applicable. These strategies are designed to address impacts associated with sea-level rise, increases in participation and storm frequency, drought conditions, and increases in temperature and frequency of high heat days.

*Climate Change – Sea Level Rise.* The project’s location will subject it to the impacts of climate change-induced sea level rise. MassDEP recommends that the Proponent consider various scenarios and future conditions that are beyond the scope of the 100-year flood elevations designated in the Flood Insurance Rate Maps (FIRMs) to evaluate impacts such as sea level rise, shoreline change, and hurricane inundation. Recognizing the vulnerability of the coastline in the vicinity of the proposed project site, the Proponent should be prepared to address the impacts of sea level rise and damage to property, businesses, and infrastructure over the lifespan of the Project. The potential risks to the Project should be evaluated based on sea level rise scenarios developed by known authorities, including the Massachusetts Coastal Zone Management Agency or community/localized studies. One recommended resource is the Massachusetts Sea Level Rise and Coastal Flooding Viewer

<https://www.mass.gov/service-details/massachusetts-sea-level-rise-and-coastal-flooding-viewer>. Please note that the viewer doesn't include all types of wastewater treatment and drinking water infrastructure.

Adaptation strategies should be considered to accommodate the effects of sea level rise and manage risk. Adding pre-disaster adaptation and post-disaster recovery measures will improve the project resiliency to flooding and the impacts of extreme storm events. Please be aware that the Sea Level Rise and Coastal Flooding Viewer does not account for storm surge, waves, erosion and other dynamic factors, while FIRMs do not account for sea level rise, shoreline erosion, changes in the frequency and magnitude of storm events, etc. Therefore, it's important to review and consider these combined with hurricane surge scenarios (which use current sea level) in order to plan for worst case scenarios and appropriate adaptation measures.

***Environmental Justice (EJ) Comments:***

City of Fall River - Environmental Justice Data. The City of Fall River, based on the 2010 US Census data, is an environmental justice community based on minority, income and English isolation (M/I/E). The City of Fall River in 2010 had a population of 88,857 with 59,242 of its residents living in an EJ block group. The City has 56 EJ blocks out of a total of 81 municipal block groups and the percentage of the City's population that resides in an EJ block group is 66.7 percent.<sup>1</sup>

EJ Population Definition. Means a neighborhood where the annual median annual household income is equal to or less than 65 percent of the statewide median or 25% of its population is minority or identifies as a household that has English Isolation.<sup>2</sup>

Pursuant to the 2017 EEA EJ Policy, "Environmental Justice shall be an integral consideration to the extent applicable and allowable by law in the implementation of all Executive Office of Energy and Environmental Affairs (EEA) programs, including but not limited to the grant of financial resources or technical assistance, the promulgation, implementation and enforcement of laws, regulations, and policies, the provision of access to both active and passive open space, and the diversification of energy sources, including energy efficiency and renewable energy generation."

It is important to keep the residents of the City involved and informed of the Project as it proceeds. The Project Proponent should be cognizant of any environmental issue that potentially affects the residents of the EJ community of its environmental impacts; *i.e.*, air quality and noise.

Status of Fall River as an EJ Community.

- Minority and Income
- English Isolation - Common languages spoken in Fall River<sup>3</sup>
  - Spanish
  - Portuguese /Portuguese Creole

<sup>1</sup> Data provided by the 2010 United States Census – American Fact Finder  
<https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>

<sup>2</sup> English Isolation refers to households that are English Language isolated according to federal census forms, or do not have an adult over the age of 14 that speaks only English or English very well.

<sup>3</sup>Data provided by the 2010 United States Census – American Fact Finder  
<https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>

Examples of Environmental Justice Community and/or Advocacy Groups in or around Fall River.

- Toxics Action Center – Claire Muller, Lead Community Organizer [Claire@toxicsaction.org](mailto:Claire@toxicsaction.org)
- Coalition for Social Justice – Sabrina Davis, Fall River Organizer, [Sab.cndavis@gmail.com](mailto:Sab.cndavis@gmail.com) (508) 685-1246
- Alternatives for Community & Environment, Dwaigh Tyndal 617 442-3343 or [dwaigh@ace-ej.org](mailto:dwaigh@ace-ej.org)
- Alternative for Community & Environment, David Jenkins 617 442-3343 or [dave@ace-ej.org](mailto:dave@ace-ej.org)
- Conservation Law Foundation – Amy Laura Cahn, Interim Director EJ [alcahn@clf.org](mailto:alcahn@clf.org)
- Conservation Law Foundation – Staci Rubin, Senior Attorney [srubin@clf.org](mailto:srubin@clf.org)

MEPA Requirements. As part of the Secretary's commitment to Environmental Justice, enhanced public participation will be required for the following projects as they undergo review in accordance with MEPA:

- Any project that exceeds an ENF threshold for air, solid and hazardous waste (other than remediation projects), or wastewater and sewage sludge treatment and disposal, and
- The Project site is located within one mile of an EJ Population (or in the case of projects exceeding an ENF threshold for air, within five miles of an EJ Population).

Enhanced public participation may include use of alternative media outlets such as community or ethnic newspapers, use of alternative information repositories, and translation of materials or interpretation services prior to and during public meetings where the relevant EJ Population uses a primary language other than English at home.

EEA shall recommend that project proponents consider the time for the meeting and the availability of the EJ community to participate, and whether the proposed locations are child-friendly and culturally appropriate and accessible to public transportation. To the extent feasible, meetings should be held in places that community members already routinely use and feel comfortable visiting. Additionally, EEA shall recommend that project proponents consider whether outreach efforts need to include an educational component to ensure that community members have the information to evaluate a projects' potential impacts.

Enhanced Analysis of Impacts and Mitigation Under MEPA. In addition to the enhanced public participation requirements, enhanced analysis will be required as part of the Environmental Impact Report (EIR) scope for projects that:

- Exceed a mandatory EIR threshold for air, solid and hazardous waste (other than remediation projects) or wastewater and sewage sludge treatment and disposal; and
- Are located within one mile an EJ Population (or in the case of projects exceeding a mandatory EIR threshold for air, within five miles of an EJ Population). The Project proponent may submit actual air modeling data on the projects' area of potential air impacts in its EIR scope to modify the presumed five-mile impact area.

Enhanced analysis of impacts and mitigation may include analysis of multiple air impacts; data on baseline public health conditions within the affected EJ Population; analysis of technological, site planning, and operational alternative's to reduce impacts; and proposed on-site and off-site mitigation measures to reduce multiple impacts and increase environmental and energy benefits for the affected EJ Population.

Public Participation Requirements pursuant to 2017 EJ Policy.

- Schedule public meetings or hearings at location and times convenient (community feels comfortable culturally appropriate) for neighborhood stakeholders and in consideration of public transportation availability;
- Encouraging permit applicants to hold pre-application meetings with the local community, and providing them with EJ Fact Sheets and EJ Organization lists;
- Translating public notices and other key public engagement documents (be proactive; do not wait for the community to ask for documents in alternative language(s)); and into other languages in areas with persons of limited English language proficiency;
- Offering interpreters and translated documents at public meetings, as appropriate and upon request;
- On a case-by case basis:
  - Utilizing collaborative approaches to problem-solving, including public deliberation and consensus-building where appropriate, to address public concerns;
  - Providing timely notices to neighborhoods potentially impacted by a decision and providing clear guidance on applicable grievance/appeal procedures; and
  - Providing information and assistance to EJ populations regarding grant applications and environmental, energy, or climate change regulations to assist them with compliance and sustainability.

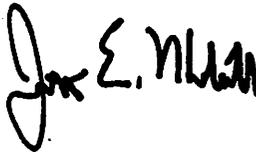
Use traditional and non-traditional information repositories.

- Non-Traditional Information Repositories (houses of worship, community centers, along with the traditional repositories – libraries and government offices)
- Contact EJ Community Leaders
- Ensure notice to the community prior to and during the public meeting and permitting process to ensure the community has opportunities to get involved.

***Other Comments/Guidance***

The MassDEP Southeast Regional Office appreciates the opportunity to comment on this ENF. If you have any questions regarding these comments, please contact George Zoto at (508) 946-2820.

Very truly yours,



Jonathan E. Hobill,  
Regional Engineer,  
Bureau of Water Resources

JH/GZ

Cc: DEP/SERO

ATTN: Millie Garcia-Serrano, Regional Director  
David Johnston, Deputy Regional Director, BWR

Gerard Martin, Deputy Regional Director, BWSC  
Jennifer Viveiros, Deputy Regional Director, ADMIN  
Seth Pickering, Deputy Regional Director, BAW  
Allen Hemberger, Site Management, BWSC  
Jim Mahala, Chief, Wetlands and Waterways, BWR  
David Hill, Wetlands and Waterways, BWR  
Deneen Simpson, Director of Environmental Justice & Program Manager,  
Commissioner's Office

Cc: Fall River

ATTN: Planning Department: [planning@fallriverma.org](mailto:planning@fallriverma.org)

Water Department: [water@fallriverma.org](mailto:water@fallriverma.org)

Sewer Department: [sewer@fallriverma.org](mailto:sewer@fallriverma.org)

Conservation Commission: [conservation@fallriverma.org](mailto:conservation@fallriverma.org)



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**DEPARTMENT OF ENERGY RESOURCES**

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**Charles D. Baker**  
Governor

**Karyn E. Polito**  
Lt. Governor

**Kathleen A. Theoharides**  
Secretary

**Judith F. Judson**  
Commissioner

16 September 2019

Kathleen Theoharides, Secretary  
Executive Office of Energy & Environmental Affairs  
100 Cambridge Street  
Boston, Massachusetts 02114  
Attn: MEPA Unit

RE: Fall River Urban Renewal Plans (URP), Fall River, Massachusetts, EEA #16080 & 16081

Cc: Maggie McCarey, Director of Efficiency Programs, Department of Energy Resources  
Judith Judson, Commissioner, Department of Energy Resources

Dear Secretary Theoharides:

We've reviewed the Urban Renewal Plans (URP) for Fall River. Fall River is undergoing urban renewal planning for both the waterfront and downtown districts which together would encompass scores of new and renovated building projects. The objective of this letter is to share strategies which can help advance greenhouse gas emissions (GHG) reduction, resilience, and affordability.

The project is currently in the planning stage and thus does not include any specific building projects at this time. Therefore, an excellent opportunity exists to embed building design criteria into the masterplan.

### **Key Strategies**

Deployed together, the following have been found to be effective strategies in advancing emission reduction, resilience, and affordability:

- Electrification of space and water heating;
- Passivehouse building standards;
- Maintaining envelope integrity with framed, insulated walls with continuous insulation;

- Avoiding glass curtain wall assemblies and excessive windows;
- Energy recovery;
- Rooftop solar PV;

Experience has shown that the above deliver 50 to 80% less emissions than projects built to Code while improving affordability and resilience. In addition, significant incentives may be available, as well, including MassSave<sup>®</sup> incentives, Alternative Energy Credits, and Solar Massachusetts Renewable Target (SMART) credits.

### **Key Mitigation Strategies Explained**

#### **Electrification of Space and Water Heating**

Efficient electrification of space and water heating entails the swapping of fossil fuels (natural gas, oil, and propane) or electric resistance systems with:

- Cold-climate air source heat pumps and variable refrigerant flow (VRF) for space heating;
- Air source heat pumps for water heating.

Electrification of space and water heating is a key mitigation strategy with significant short- and long-term implications on GHG emissions. Massachusetts grid emissions rates continue to decline with the implementation of clean energy policies that increase renewable electricity sources. The implication is that efficient electric space and water heating with cold climate air source heat pump and VRF equipment have lower emissions than other fossil-fuel based heating options, including best-in-class condensing natural gas equipment. Currently, efficient electric heating has approximately **45% lower emissions** than condensing natural gas heating and, by 2050, efficient electric heating is expected to have approximately **85% lower emissions** than condensing natural gas heating.

Heat pumps and/or VRFs used for space heating can qualify for significant incentives, including Alternative Energy Credits (AECs) (more below).

#### **Passivehouse**

Passivehouse is an energy efficiency building standard that results in an ultra-low energy building requiring little energy use for space heating and cooling. This is achieved by focusing on envelope performance, airtightness, and energy recovery. Passivehouse projects also typically have electrified heating, as described above. Passivehouse projects also typically have much smaller-sized HVAC systems. Published studies show that in low-rise and mid-rise construction,

Fall River Urban Renewal Plans (Waterfront and Downtown Districts), EEA #16080 & 16081  
Fall River, Massachusetts

Passivehouse doesn't necessarily cost more to build because improvements to envelope are offset by reductions in HVAC<sup>1</sup> and in high-rise construction, Passivehouse costs nominally more<sup>2</sup>.

Passivehouse is an energy code standard which is unlike other energy efficient building approaches in that its truly performance based by requiring mandatory, rigorous in-field tests to confirm that strict standards are being met. Passivehouse methods are recognized by both Massachusetts building Code, MassSave<sup>®3</sup>, and incentives under Massachusetts' unique Alternative Energy Credits (AECs) system. For a multifamily building having 1,000-sf units, total MassSave<sup>®</sup> and AEC value is approximately **\$6,250 per dwelling unit**. (Detailed example provided below.)

Passivehouse also delivers:

- *Significant reduction in utility costs:* thus is much more affordable to residents;
- *Improved resiliency:* Passivehouse buildings can stay warm (or cool, in the summer) for extended periods of time even with loss of power.

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<sup>1</sup> Pennsylvania Housing and Finance Association. *Passivehouse Cost Comparison Data set 2015, 2016, 2018* [Data Set]

<sup>2</sup> Feasibility Study to Implement the Passivehaus Standard on Tall Residential Buildings, FXcollaborative, 30 March 2017, Prepared for NYSERDA

<sup>3</sup> MassSave<sup>®</sup> is a consortium of Massachusetts utility companies designed to deliver energy efficiency throughout the Commonwealth of Massachusetts.

### Passivehouse Examples

Passivehouse is not limited to a single building type. Below are some Northeast examples:



*Newton Northland,  
Newton, MA*



*Winthrop Center  
Boston, MA*



*The Distillery  
Boston, MA*



*Hello Townhaus  
New York City, NY*



*Sendero Verde  
New York City, NY*



*Chestnut Commons  
New York City, NY*



*11 Crown Street  
Meriden CT*

### **Integrity of Building Envelope**

High-performing envelope is essential to successful GHG mitigation, affordability, and resilience. Key strategies for maintaining integrity of envelope are:

- Continuous insulation;
- Limiting or eliminating use of glass “curtain wall” and spandrel assemblies;
- Maximizing framed, insulated walls sections;
- Avoiding excessive window areas;
- Reducing air infiltration.

The thermal performance of windows, curtain walls, and spandrels is typically about **70 to 80% less** than the thermal performance of the framed, insulated wall assemblies. Accordingly, buildings which use extensive curtain wall, spandrel, and windows have compromised envelope performance which impacts energy consumption, emissions, resiliency, and affordability.

## **Rooftop Solar PV**

Rooftop PV can provide significant GHG benefits as well as significant financial benefits. Code currently requires that at least 50% of low-rise roofs be PV ready. Experience has shown that, with planning, up to 80% of roof space can be set aside for PV on roofs of both low-rise and high-rise buildings.

Even if PV is not installed during building construction, it's important to plan the project to ensure that roof space is set aside for PV and that roof space doesn't become unnecessarily encroached with HVAC appurtenances, diminishing the opportunities for future PV. Electrification of heating and Passivehouse both contribute to enabling more PV as these approaches can greatly reduce rooftop equipment associated with conventional code HVAC.

## **Incentives**

Buildings which incorporate the above strategies can qualify for significant incentives:

- MassSave<sup>®</sup> performance-based incentives<sup>4</sup> offer incentives for every kWh or therm saved compared to a program-provided energy model. The above energy efficiency strategies offer opportunities for large kWh and therm savings.
- MassSave<sup>®</sup> Passivehouse incentives are available to multifamily buildings 4 stories or higher. Incentive structure covers most of the cost of simply investigating feasibility, then a generous incentive if the project decides to build to Passivehouse. The incentive structure is as follows:
  - Feasibility Incentive: MassSave<sup>®</sup> will pay 100% of the cost a feasibility study (max \$5,000) and 75% of the cost of energy modeling (max \$20,000). In total, up to \$25,000 is available to study feasibility of Passivehouse.
  - Construction Incentive: If the project decides to advance with Passivehouse, MassSave<sup>®</sup> will pay an advance "pre-certification" of \$500/dwelling unit early in the construction. Once the project is completed and reaches full certification, MassSave<sup>®</sup> will pay \$2,500/dwelling unit plus a performance add-on. Total construction incentive is approximately \$3,250/unit.
- Alternative Energy Credits (AECs)<sup>5</sup> offer incentives to electrify building space heating using heat pumps and/or VRF. This program also includes multipliers which increase value if the building meets Passivehouse standards. These credits may be distributed on a quarterly basis over time; or, may be distributed in a lump sum to the developer if certain conditions are met.

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<sup>4</sup> <https://www.masssave.com/en/saving/business-rebates/new-buildings-and-major-renovations/>

<sup>5</sup> <https://www.mass.gov/guides/aps-renewable-thermal-statement-of-qualification-application>

- In the scenario that AECs are paid on a lump sum basis, the value of AECs for a 1,000-sf multifamily unit built to Passivehouse standards, including multipliers, works out to about \$3/sf<sup>6</sup>. This incentive is in addition to MassSave<sup>®</sup> incentives. Therefore, a 1,000-sf dwelling unit, built to Passivehouse and qualifying for both AECs and MassSave<sup>®</sup> incentives could qualify for a total of about **\$6,250 per dwelling unit**. This does not include the value of the feasibility and modeling, which is also largely paid for, as noted above.
- Massachusetts solar SMART plan<sup>7</sup> provides significant incentives for solar development on top of federal tax credits. The SMART plan includes pathways which allow solar production to be sold without off-takers. This may be of potential interest to building developers as this allows them to develop rooftop solar without necessarily engaging with building tenants. For this reason, setting aside rooftop solar PV areas helps ensure that building owners' ability to monetize the roof is not impacted.

### **Recommendations for Urban Redevelopment & Renewal Plan (URP)**

The strategies described above provide pathways to GHG mitigation, increased affordability, and improve resiliency. It is important to consider these strategies throughout the urban redevelopment & renewal plan. The following are questions that should be considered throughout the planning process for each building:

- Was Passivehouse considered? Early analysis improves the feasibility of Passivehouse. Were the following answered:
  - Does the analysis include all benefits (GHG mitigation, affordability, and resiliency)?
  - Were the MassSave performance and Passivehouse incentives incorporated?
  - Did the buildings that qualify for the MassSave Passivehouse incentive use the pre-construction feasibility and energy modeling incentives?
- Was efficient electrification considered? ASHP/VRF for space and water heating are feasible for most building types and should be considered for all buildings. Was the following answered:
  - Does the analysis include all benefits (GHG emissions, affordability, reduced dedicated mechanical space, reduced floor to floor height or more flexible HVAC arrangements)?
  - Did the analysis of heat pump water heating consider all available technologies, including centrally located, split, and combined systems?

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<sup>6</sup> Assumes value of Alternative Energy Credit of \$20/MWhr.

<sup>7</sup> <https://www.mass.gov/solar-massachusetts-renewable-target-smart>

- Were all MassSave and AEC incentives accounted for in the analysis?
- Is above-code envelope performance used in all buildings? For all buildings, the proposed whole-assembly, aggregate U-value (also called “UA”) calculated should be smaller than the reference building, otherwise envelope performance is being traded-off, reversing mitigation gains. Tradeoffs should be avoided. The table below shows how to calculate whole-assembly U-value. It’s important to calculate whole-assembly U-value as it incorporates thermal performance of all assemblies. Information such as window-to-wall ratio (WWR) is not enough information to assess assembly performance.

Vertical Envelope	Reference Building		Proposed Building	
	Percent of Vertical Area	U value	Percent of Vertical Area	U value
Framed, insulated Wall	%	value	%	value
Opaque glass, curtain wall, shadowbox, spandrel	%	value	%	value
Vision glass	%	value	%	value
	<b>100%</b>	<b>Whole Assembly U-value</b>	<b>100%</b>	<b>Whole Assembly U-value</b>

Whole assembly U-value (also known as “UA” value) is calculated as:  $(U_1\%_1 + U_2\%_2 + U_3\%_3)$  where U is the respective thermal transmittance values and %<sub>1</sub> is the percent area of framed insulated wall; %<sub>2</sub> is the percent area of opaque glass, curtain, or shadowbox; and %<sub>3</sub> is the percent area of vision glass. Only areas adjacent to conditioned space are counted, areas adjacent to unconditioned spaces (e.g. parking garages, mechanical penthouses) are not counted.

- Did the project set-aside as much space as possible for rooftop PV? It is important to set-aside roof space for PV early to ensure that mechanical equipment spacing is designed to maximize rooftop space. A target of 80% roof set-aside is generally achievable.
- Furthermore, integration of these recommended measures has compounding and interrelated benefits. For example: the adoption of an above code building envelope and air-sealing measures greatly improve the feasibility and economics of an all-electric space heating system; electrification reduces rooftop equipment; inclusion of solar PV in a project improves the economics of efficient electrification of space and water heating. Accordingly, these solutions should be considered as a package rather than in isolation.

Sincerely,



Paul F. Ormond, P.E.  
 Energy Efficiency Engineer  
 Massachusetts Department of Energy Resources

Fall River Urban Renewal Plans (Waterfront and Downtown Districts), EEA #16080 & 16081  
Fall River, Massachusetts

A handwritten signature in black ink, appearing to read 'B. Place'.

Brendan Place  
Clean Energy Engineer  
Massachusetts Department of Energy Resources