

Geotechnical Environmental Water Resources Ecological September 13, 2018 Project 1703222

VIA CERTIFIED MAIL: 9171 9690 0935 0204 6705 70

City of New Bedford 133 William Street New Bedford, MA 02740

Dear Sir/Madam:

Re:

Activity and Use Limitation Notification to Record Interest Holders

180 MacArthur Drive

New Bedford, Massachusetts MassDEP RTN 4-14208

Consistent with the Massachusetts Contingency Plan (MCP; 310 CMR 40.1074[1][d]), this letter is being provided to notify you of the planned recording of a Notice of Activity and Use Limitation (AUL) for the above referenced property, which is owned by NSTAR Electric Company d/b/a Eversource Energy. As a record interest holder in the property, you are being provided 30 days-notice prior to the recording of the Notice of AUL.

The enclosed documents provide the basis for and scope of the activity and use limitations to be placed on the property.

Please contact me at 781-721-4018 or jash@geiconsultants.com, if you have any questions.

Sincerely,

GEI CONSULTANTS, INC.

James R. Ash, P.E., LSP Senior Vice President

LAL/JRA:jam

Enclosure:

Attachment A - Planned Notice of AUL - NSTAR Electric Co (Form 1075 and Exhibits A - C)

c: Gary Iadarola, Eversource

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Attachment A

Planned Notice of AUL – NSTAR Electric Company d/b/a Eversource Energy Property (Form 1075 and Exhibits A - C)

Form 1075

Note: Pursuant to 310 CMR 40.1074(5), upon transfer of any interest in or a right to use the property or a portion thereof that is subject to this Notice of Activity and Use Limitation, the Notice of Activity and Use Limitation shall be incorporated either in full or by reference into all future deeds, easements, mortgages, leases, licenses, occupancy agreements or any other instrument of transfer. Within 30 days of so incorporating the Notice of Activity and Use Limitation in a deed that is recorded or registered, a copy of such deed shall be submitted to the Department of Environmental Protection.

NOTICE OF ACTIVITY AND USE LIMITATION M.G.L. c. 21E, § 6 and 310 CMR 40.0000

Disposal Site Name: New Bedford Former Manufactured Gas Plant DEP Release Tracking No.(s): 4-14208

This Notice of Activity and Use Limitation ("Notice") is made as of this _____ day of _____, 2018, by NSTAR Electric Company d/b/a Eversource Energy, 247 Station Drive, Westwood, Massachusetts, 02090, together with his/her/its/their successors and assigns (collectively "Owner").

WITNESSETH:

WHEREAS, NSTAR Electric Company d/b/a Eversource Energy is the owner in fee simple of that certain parcel of land located in New Bedford, Bristol County, Massachusetts with the buildings and improvements thereon, pursuant to a deed recorded with the Bristol South Registry of Deeds in Book 1821, Page 440;

WHEREAS, said parcel of land, which is more particularly bounded and described in Exhibit A, attached hereto and made a part hereof ("Property") is subject to this Notice of Activity and Use Limitation. The Property is shown on a plan recorded in the Bristol South Registry of Deeds in Plan Book 157, Plan 59;

WHEREAS, a portion of the Property ("Portion of the Property") is subject to this Notice of Activity and Use Limitation. The Portion of the Property is more particularly bounded and described in Exhibit A-1, attached hereto and made a part hereof. The Portion of the Property is shown on a plan recorded with the Bristol South Registry of Deeds in Plan Book 178, Plan 29;

AUL Forms 310 CMR 40.1099

Form 1075: continued

WHEREAS, the Portion of the Property comprises part of a disposal site as the result of a release of oil and/or hazardous material. Exhibit B is a sketch plan showing the relationship of the Portion of the Property subject to this Notice of Activity and Use Limitation to the boundaries of said disposal site existing within the limits of the Property and to the extent such boundaries have been established. Exhibit B is attached hereto and made a part hereof; and

WHEREAS, one or more response actions have been selected for the Portion of the Disposal Site in accordance with M.G.L. c. 21E ("Chapter 21E") and the Massachusetts Contingency Plan, 310 CMR 40.0000 ("MCP"). Said response actions are based upon (a) the restriction of human access to and contact with oil and/or hazardous material in soil and groundwater and/or (b) the restriction of certain activities occurring in, on, through, over or under the Portion of the Property. A description of the basis for such restrictions, and the oil and/or hazardous material release event(s) or site history that resulted in the contaminated media subject to the Notice of Activity and Use Limitation is attached hereto as Exhibit C and made a part hereof;

NOW, THEREFORE, notice is hereby given that the activity and use limitations set forth in this Notice of Activity and Use Limitation are as follows:

- 1. <u>Activities and Uses Consistent with Maintaining No Significant Risk Conditions</u>. The following Activities and Uses are consistent with maintaining a Permanent Solution and a condition of No Significant Risk and, as such, may occur on the Portion of the Property pursuant to 310 CMR 40.0000:
 - (i) Commercial and industrial activities and uses including, without limitation, manufacturing; storage; warehouse; office; retail; fitness center; hotel; and restaurant uses and all activities customarily incidental thereto, such as parking, provided such activities do not cause direct contact with, disturbance of, or relocation of soil located greater than 3 feet below the surface grade elevation of the Portion of the Property existing as of the date of this Notice of Activity and Use Limitation (the "Current Surface Grade"), except in accordance with Paragraph 1.(iv) below. The Current Surface Grade is shown on the plan attached as Exhibit B;
 - (ii) Improvement, build-out, decommissioning, demolition, repair, and surface cover repairs/ enhancements in a manner that does not cause direct contact with, disturbance of, or relocation of soil located greater than 3 feet below the Current Surface Grade, except in accordance with Paragraph 1.(iv) below;
 - (iii) Landscaping activities that do not cause direct contact with, disturbance of, or relocation of soil located greater than 3 feet below the Current Surface Grade and that do not result in the offsite transport of soil;
 - (iv) Improvement, build-out, demolition, construction, and other activities that disturb or have the potential to disturb soil located greater than 3 feet below the Current Surface Grade shall involve an evaluation by a Licensed Site Professional and the development and implementation of a Soil Management Plan and Health and Safety Plan in accordance with Paragraph 3 ("Obligations") of this Notice of Activity and Use Limitation. The implementation of any such activities shall return the surface grade to the Current Surface

Grade or otherwise provide a suitable barrier to direct contact with soil greater than 3 feet below the Current Surface Grade (e.g., pavement, building foundation, or clean soil). If a suitable barrier is installed to prevent direct contact with soil greater than 3 feet below the Current Surface Grade, the barrier shall be maintained to ensure that soil beneath the barrier remains inaccessible;

- (v) Emergency underground utility repair;
- (vi) Construction of new buildings provided that the requirements of Paragraphs 1(iv) and 3(i) and 3(ii) are complied with and either (1) a vapor mitigation system, approved by a Licensed Site Professional, is installed to control the migration of volatile compounds from groundwater to indoor air or (2) an evaluation is conducted by a Licensed Site Professional who renders an opinion that a vapor mitigation system is not necessary;
- (vii) Such other activities or uses which, in the Opinion of a Licensed Site Professional, shall present no greater risk of harm to health, safety, public welfare or the environment than the activities and uses set forth in this Paragraph; and
- (viii) Such other activities and uses not identified in Paragraph 2 as being Activities and Uses Inconsistent with maintaining No Significant Risk Conditions.
- 2. <u>Activities and Uses Inconsistent with Maintaining No Significant Risk Conditions</u>. The following Activities and Uses are inconsistent with maintaining a Permanent Solution and a condition of No Significant Risk pursuant to 310 CMR 40.0000, and, as such, may not occur on the Portion of the Property:
 - (i) Any residential use of the Portion of the Property;
 - (ii) Any use of soil at the Portion of the Property for the growing of fruits or vegetables for human consumption;
 - (iii) Any use of the Portion of the Property for a nursery, day-care, outdoor recreational facility, a school or any other usage that involves the presence of children at high frequency and high intensity;
 - (iv) Non-emergency underground utility or construction unless such work is evaluated by a Licensed Site Professional and conducted in accordance with a Soil Management Plan and a Health and Safety Plan developed and implemented in accordance with the Obligations of this Notice of Activity and Use Limitation, and unless such work is performed in accordance with Paragraph 1(ii) and (iv);
 - (v) Any excavation or earth moving activities on the Portion of the Property that would materially alter the surface grade of the Portion of the Property or relocate soil currently at a depth greater than 3 feet below the Current Surface Grade to within 3 feet of the final property grade, unless first evaluated by a Licensed Site Professional who renders an opinion to the effect that the resulting altered grades will not result in a condition of significant risk or substantial hazard on the Portion of the Property; and

- (vi) Construction of new buildings without either (1) installation of a vapor mitigation system, approved by a Licensed Site Professional, to control the migration of volatile compounds from groundwater to indoor air or (2) an evaluation by a Licensed Site Professional concluding a vapor mitigation system is not necessary.
- 3. <u>Obligations and Conditions</u>. The following obligations and/or conditions are necessary and shall be undertaken and/or maintained at the Portion of the Property to maintain a Permanent Solution and a condition of No Significant Risk:
 - (i) A Soil Management Plan shall be prepared by a Licensed Site Professional and implemented prior to the commencement of any planned (non-emergency) utility installation, repair or maintenance activity, or any construction activity, with the exception of landscaping activities conducted within 3 feet of the Current Surface Grade that do not involve the offsite transport of soil. The Soil Management Plan shall be prepared in accordance with the MCP (310 CMR 40.0030). The Soil Management Plan should describe soil excavation, handling, storage, transport, and disposal procedures and include a description of engineering controls and air monitoring procedures necessary to ensure that on-site workers and receptors in the vicinity are not affected by fugitive dust or particles. Procedures for managing water encountered in the excavation shall also be addressed in the Plan. On-site workers shall be informed of the requirements in this Plan and the Plan must be made available on site. Procedures for the characterization of waste and procedures for proper transportation and disposal are outlined in 310 CMR 40.0030;
 - (ii) A Health and Safety Plan shall be prepared by a qualified professional and implemented prior to the commencement of any non-emergency utility installation, repair or maintenance activity, or any construction activity, with the exception of landscaping activities conducted within 3 feet of the Current Surface Grade. The Health and Safety Plan shall require workers encountering subsurface soils to be adequately protected and trained consistent with relevant federal and state occupational, health and safety requirements (e.g. 29 CFR 1910.120), and must otherwise be prepared in accordance with the guidelines discussed in the AUL Opinion. The Health and Safety Plan shall consider the appropriate personal protection equipment for construction or utility workers and monitoring of the breathing zone air quality during Site excavation activities due to the presence of volatile organic compounds associated with the former manufactured gas plant;
 - (iii) The Current Surface Grade shall be maintained or a suitable barrier shall be provided to prevent direct contact with soil greater than 3 feet below the Current Surface Grade (e.g., pavement, building foundation, or clean soil). If a suitable barrier is installed, the barrier shall be maintained to ensure that soil beneath the barrier remains inaccessible;
 - (iv) The contaminated soil located below 3 feet below the Current Surface Grade must remain below 3 feet below the Current Surface Grade and may not be relocated, unless such activity is first appropriately evaluated by a Licensed Site Professional who renders an opinion to the effect that such relocation when implemented and thereafter is consistent with maintaining a condition of No Significant Risk;

- (v) If, as a result of emergency underground utility repair conducted in accordance with Paragraph 1(v), soil is relocated from a depth greater than 3 feet below Current Surface Grade to within 3 feet of surface grade, it must be covered by a suitable barrier such as pavement, a building foundation, or at least 3 feet of clean soil, or other surface cover approved by a Licensed Site Professional to prevent future exposures to contaminated soil; and
- (vi) Any soils removed from the Portion of the Property shall be characterized and disposed of in accordance with federal, state, and local regulations.
- 4. <u>Proposed Changes in Activities and Uses</u>. Any proposed changes in activities and uses at the Portion of the Property which may result in higher levels of exposure to oil and/or hazardous material than currently exist shall be evaluated by a Licensed Site Professional who shall render an Opinion, in accordance with 310 CMR 40.1080, as to whether the proposed changes are inconsistent with maintaining a Permanent Solution and a condition of No Significant Risk. Any and all requirements set forth in the Opinion to meet the objective of this Notice shall be satisfied before any such activity or use is commenced.
- 5. <u>Violation of a Permanent or Temporary Solution</u>. The activities, uses and/or exposures upon which this Notice is based shall not change at any time to cause a significant risk of harm to health, safety, public welfare, or the environment or to create substantial hazards due to exposure to oil and/or hazardous material without the prior evaluation by a Licensed Site Professional in accordance with 310 CMR 40.1080, and without additional response actions, if necessary, to maintain a condition of No Significant Risk.

If the activities, uses, and/or exposures upon which this Notice is based change without the prior evaluation and additional response actions determined to be necessary by a Licensed Site Professional in accordance with 310 CMR 40.1080, the owner or operator of the Property subject to this Notice at the time that the activities, uses and/or exposures change, shall comply with the requirements set forth in 310 CMR 40.0020.

6. <u>Incorporation into Deeds, Mortgages, Leases, and Instruments of Transfer</u>. This Notice shall be incorporated either in full or by reference into all future deeds, easements, mortgages, leases, licenses, occupancy agreements or any other instrument of transfer, whereby an interest in and/or a right to use the Property or a portion thereof is conveyed in accordance with 310 CMR 40.1074(5).

Owner hereby authorizes and consents to the filing and recordation and/or registration of this Notice, said Notice to become effective when executed under seal by the undersigned Licensed Site Professional, and recorded and/or registered with the appropriate Registry(ies) of Deeds and/or Land Registration Office(s).

WITNESS the execution hereof under seal this	day of	, 20
NSTAI	R Electric Company d/b/a Ev	ersource Energy
•	By:Ellen K. Angley	···
Supply Chain, En	Ellen K. Angley vironmental Affairs & Prope	
COMMONWEALTH OF MAS	SSACHUSETTS	
, SS		, 20
On this day of, 20, personally appeared <u>Ellen K. Angley</u> , proved identification, which were on the preceding or attached document, and acknow for its stated purpose as Vice President for N Energy, a corporation.	d to me through satisfacto, to be the person whos owledged to me that she sign	ory evidence of the name is signed the it voluntarily
(official sign	nature and seal of notary)	
		·
The undersigned Licensed Site Professional here Activity and Use Limitation is consistent with a Permane No Significant Risk.		
Date:		
	James R	. Ash, P.E., LSP

COMMONWEALTH OF MASSACHUSETTS

, SS	,2	0
eared James R. Ash,	proved to me through satisfactory evidence of identification, w, to be the person whose name is signed on the preceding	vhich
	(official signature and seal of notary)	
	his day of eared James R. Ash,	his day of, 20, before me, the undersigned notary public, personared James R. Ash, proved to me through satisfactory evidence of identification, we, to be the person whose name is signed on the preceding the document, and acknowledged to me that (he) (she) signed it voluntarily for its stose.

EXHIBIT A

METES AND BOUNDS DESCRIPTION OF PROPERTY SUBJECT TO THE AUL

A certain parcel of land situated in the Commonwealth of Massachusetts, County of Bristol, City of New Bedford, located easterly of MacArthur Drive and northerly of Pine Street being shown as "PARCEL C" on a plan entitled "Division of Property," prepared for Commonwealth Electric Company, prepared by Tibbetts Engineering Corp., Scale: 1"=80' and dated May 2, 2005 and endorsed by the City of New Bedford on September 1, 2005, and recorded on December 6, 2005 in the Bristol County South District Registry of Deeds in Plan Book 157, Page 59, being more particularly bounded and described as follows:

Beginning at a point at the most southwesterly corner of the parcel, said point being on the easterly sideline of MacArthur Drive and the northerly sideline of Pine Street, thence running;

N 07° 57' 56" W	469.13 feet to a point, said course being by the easterly sideline of MacArthur Drive, thence turning and running;
N 82° 02' 04" E	40.00 feet to a point, thence turning and running;
S 19° 16' 25" E	50.99 feet to a point, thence turning and running;
N 82° 30′ 32" E	187.85 feet to a point, thence turning and running;
N 07° 36' 46" W	160.33 feet to a point, thence turning and running;
N 82° 35' 17" E	176.96 feet to a point, thence turning and running;
N 08° 28' 22" W	4.22 feet to a point, said last six courses being by land now or formerly of Commonwealth Gas Company, thence turning and running;
N 82° 36' 48" E	210.13 feet to a point, thence turning and running;
S 07° 21' 09" E	183.28 feet to a point, thence turning and running;
S 82° 31' 25" W	82.14 feet to a point, thence turning and running;
S 34° 09' 01" W	25.74 feet to a point, thence turning and running;
S 07° 27' 18" E	55.32 feet to a point, thence turning and running;
S 82° 30' 15" W	212.88 feet to a point, thence turning and running;
N 06° 47' 37" W	10.23 feet to a point, thence turning and running;
S 82° 27' 09" W	79.35 feet to a point, thence turning and running;
S 07° 25' 37" E	120.17 feet to a point, thence turning and running;
N 82° 37' 54" E	48.90 feet to a point, thence turning and running;
S 07° 18' 18" E	19.17 feet to a point, thence turning and running;

N 82° 33' 08" E	9.08 feet to a point, thence turning and running;
S 07° 29' 28" E	70.82 feet to a point, thence turning and running;
N 82° 35' 39" E	20.83 feet to a point, thence turning and running;
S 07° 22' 07" E	11.21 feet to a point, thence turning and running;
N 82° 34' 39" E	37.59 feet to a point, thence turning and running;
N 07° 33' 09" W	11.43 feet to a point, thence turning and running;
N 82° 31' 16" E	43.74 feet to a point, thence turning and running;
S 07° 20' 21" E	77.31 feet to a point, thence turning and running;
S 39° 47' 50" W	37.44 feet to a point, thence turning and running;
S 83° 24' 12" W	53.76 feet to a point, thence turning and running;
S 38° 57' 58" W	23.83 feet to a point, said last twenty-two courses being by land now or formerly of Sprague Massachusetts Properties LLC, thence turning and running;
S 81° 03' 24" W	290.50 feet to the point of beginning. Said course being by the northerly sideline of Pine Street.

Containing 211,694 square feet more or less, or 4.860 acres more or less.

EXHIBIT A-1

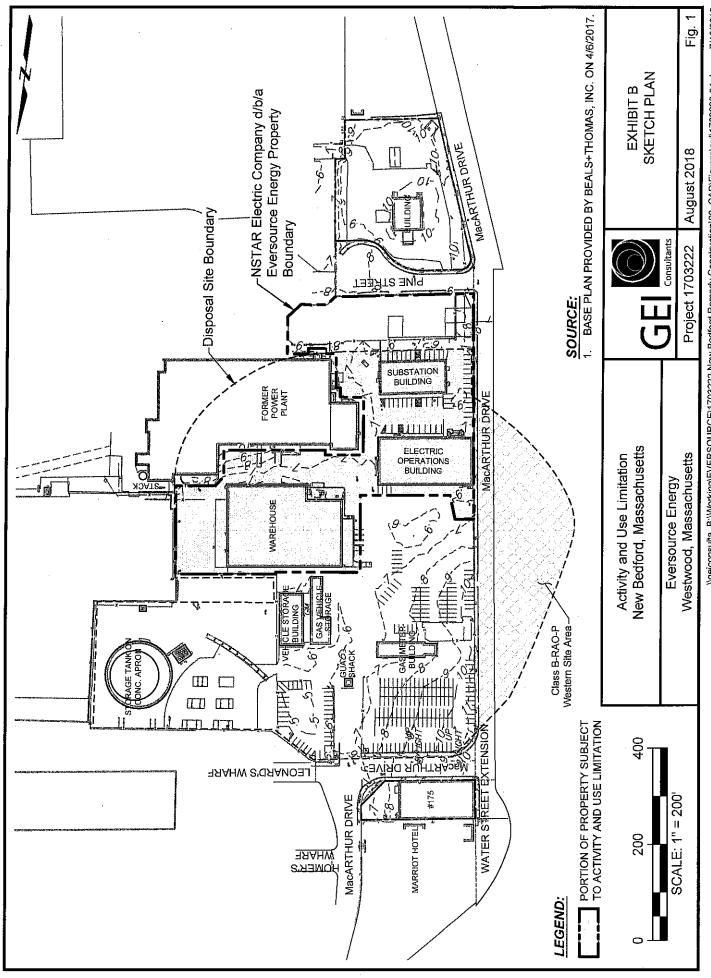
METES AND BOUNDS DESCRIPTION OF THE PORTION OF THE PROPERTY SUBJECT TO THE AUL

A certain Activity and Use Limitation area situated in the Commonwealth of Massachusetts, County of Bristol, City of New Bedford, located easterly of MacArthur Drive and northerly of Pine Street being shown as "ACTIVITY AND USE LIMITATION AREA 166,740 +/- S.F." on a plan entitled "COMMONWEALTH ELECTRIC COMPANY ACTIVITY AND USE LIMITATION PLAN, MacArthur Drive, New Bedford, MA (Bristol County)" dated June 29, 2018, prepared by Beals and Thomas, Inc., and recorded on August 1, 2018 in the Bristol County South Registry of Deeds in Plan Book 178, Page 29, being more particularly bounded and described as follows:

Beginning at a point at the most northwesterly corner of the Activity and Use Limitation area, said point being on the easterly sideline of MacArthur Drive at land now or formerly of Commonwealth Gas Company and at land now or formerly of Commonwealth Electric Company, thence running;

N 82° 02' 04" E	40.02 feet to a point, thence turning and running;
S 19° 16' 25" E	50.99 feet to a point, thence turning and running;
N 82° 30' 32" E	187.85 feet to a point, thence turning and running;
N 07° 36' 46" W	160.33 feet to a point, thence turning and running;
N 82° 35' 17" E	176.96 feet to a point, thence turning and running;
N 08° 28' 22" W	4.22 feet to a point, said last six courses being by land now or formerly of Commonwealth Gas Company, thence turning and running;
N 82° 36' 48" E	210.13 feet to a point, thence turning and running;
S 07° 21' 09" E	183.28 feet to a point, thence turning and running;
S 82° 31' 25" W	82.14 feet to a point, thence turning and running;
S 34° 09' 01" W	25.74 feet to a point, thence turning and running;
S 07° 27' 18" E	55.32 feet to a point, thence turning and running;
S 82° 30' 15" W	212.88 feet to a point, thence turning and running;
N 06° 47' 37" W	10.23 feet to a point, thence turning and running;
S 82° 27' 09" W	79.35 feet to a point, thence turning and running;
S 07° 25' 37" E	120.17 feet to a point, thence turning and running;
N 82° 37' 54" E	48.90 feet to a point, thence turning and running;
S 07° 18' 18" E	19.17 feet to a point, thence turning and running;
N 82° 33' 08" E	9.08 feet to a point, thence turning and running;

S 07° 29' 28" E	70.82 feet to a point, said last thirteen courses being by land now or formerly of Sprague Massachusetts Properties LLC thence turning and running;
S 82° 35' 39" W	288.07 feet to a point, said course being by other land now or formerly of Commonwealth Electric Company, thence turning and running;
N 07° 57' 56" W	343.20 feet to the point of beginning. Said course being by the easterly sideline of MacArthur Drive.



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DRAFT - Exhibit C

LSP Narrative

1. Introduction

This Licensed Site Professional (LSP) narrative was prepared by GEI Consultants, Inc. to support the Notice of Activity and Use Limitation (AUL) prepared for a portion of the NSTAR Electric Company d/b/a Eversource Energy property located at 180 MacArthur Drive in New Bedford, Massachusetts (Portion of the Property). The Portion of the Property is located within the boundary of the former New Bedford Manufactured Gas Plant (MGP) site, a listed Massachusetts Department of Environmental Protection (MassDEP) disposal site assigned Release Tracking Number (RTN) 4-14208 (the Site).

This LSP narrative was prepared in accordance with the Massachusetts Contingency Plan (MCP), 310 CMR 40.1074, and the MassDEP Draft Guidance on Implementing AULs (Policy #WSC 14-300).

2. Site Description and History

The Site includes parcels of land owned by NSTAR Electric Company d/b/a Eversource Energy and NSTAR Gas Company d/b/a Eversource Energy; parcels owned by Sprague Massachusetts Properties; and portions of public roadways MacArthur Drive, JFK Memorial Highway, and Route 18. This Notice of AUL applies to a portion of the NSTAR Electric Company parcel.

The Site and surrounding area has been used for industrial purposes since the 1800s. The majority of the Site appears to be made land that was filled prior to 1888 and was originally part of New Bedford Harbor. From the 1880s through the mid-1960s, the Site was operated as an MGP. A coal tar processing facility also operated at the Site from the 1930s through the mid-1960s.

Structures on the Portion of the Property include the Electric Operations Building, which was constructed in about 1924, and the warehouse building, which was constructed in about 1970. The NSTAR gas and electric properties were operated as gas and electric operations centers from the 1960's through October 2017, when they vacated the properties and relocated their operations.

3. Summary of Response Actions

The Site was assigned RTN 4-14208 in 1998 when MGP-related contaminants were identified in soil and groundwater on the abutting NSTAR Gas Company property. From 1998 through 2001, MCP Phase I and II investigations were conducted by RAM Environmental, LLC and Lightship Engineering, respectively, and a Method 3 Risk Characterization was prepared based on the results of those investigations. In 2002, Lightship submitted a Phase III Remedial Action Plan (RAP) concurrently with the Phase II Comprehensive Site Assessment (CSA) that identified limited excavation and implementation of an AUL as the selected remedy to achieve a Permanent Solution. However, the cost to implement the remedy was found to be disproportionate to the potential benefits at that time. This conclusion was based in part on the

fact that the majority of the Site (the properties owned by NSTAR Gas and Electric Companies, both d/b/a Eversource Energy) was an active gas and electric operations facility, and implementation of the selected remedy would result in significant disruptions to the gas and electric operations. Therefore, a Temporary Solution (Class C Response Action Outcome [RAO]) was implemented instead.

Between December 2016 and May 2018, GEI, on behalf of Eversource, conducted supplemental Phase II investigations to collect additional soil, groundwater, and soil gas data to support an update to the Method 3 Risk Characterization. Investigations were also conducted to define the limits of dense non-aqueous phase liquid (DNAPL) with micro-scale mobility that had been observed in a monitoring well located on the NSTAR Gas Company property in the area of a former gas holder.

Between February and June 2018, a Release Abatement Measure (RAM) was conducted on the NSTAR Gas Company property to remediate DNAPL with micro-scale mobility in the area of the former gas holder. The RAM consisted of pre-excavation and offsite disposal of shallow soil in the former holder area; in-situ solidification (ISS) of DNAPL and affected soil to the top of bedrock; backfill over the ISS monolith with clean imported fill; and re-paving of the ISS area.

No remedial actions have been conducted on the Portion of the Property subject to the AUL.

A Revised Phase II CSA and Method 3 Risk Characterization, which incorporated the results of the supplemental Phase II investigations and the RAM, was submitted in XXXX 2018.

4. Description of Contaminated Media

The primary contaminants of concern (COCs) in soil and groundwater on the Portion of the Property are MGP-related and include volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs), extractable petroleum hydrocarbon (EPH) and volatile petroleum hydrocarbon (VPH) fractions, and physiologically available cyanide (PAC). Metals are present in soil at relatively low concentrations. DNAPL with micro-scale mobility was historically present in one monitoring well on the western portion of the NSTAR Gas Company property, but has not been observed on the NSTAR Electric Company property.

Contamination is present in soil generally to the top of bedrock, which ranges from about 19 feet below grade near the western Property boundary, to about 28 feet below grade near the eastern Property boundary.

Petroleum or MGP-related VOCs, freon, and some chlorinated VOCs were detected in indoor air samples collected in the warehouse and electric operations buildings. The source of freon and chlorinated VOCs in indoor air has not been identified. However, chlorinated VOCs were not detected in soil or groundwater samples collected on the Portion of the Property. Therefore, it is likely that the presence of these contaminants in indoor air can be attributed to historic operations inside the buildings.

5. Why an AUL is appropriate to maintain a Permanent Solution and Condition of No Significant Risk:

A Method 3 Risk Characterization was prepared by GEI in 2018 based on the assumption that an AUL would be implemented on the Portion of the Property to prohibit future residential use. Based on the results of the Method 3 Risk Characterization, a condition of No Significant Risk (NSR) was found to exist for the current and potential future receptors evaluated.

The AUL for the Portion of the Property is written to maintain a permanent solution and condition of NSR by restricting all future residential use. Although a condition of NSR was found to exist for a future commercial worker, the AUL was also written to control exposures to soil at depths greater than three feet by restricting the relocation of soil at depth to within three feet of surface grade. Although the soil exposure point concentrations (EPCs) used in the Risk Characterization result in NSR to a future commercial worker exposed to soil at depth, soil conditions at depth across the Portion of the Property are variable and include presence of coal tar residuals at some locations. Therefore, the restriction was included in the AUL to prevent the relocation of soil with potential coal tar residuals from depth to within three feet of the ground surface. The AUL also specifies the preparation and implementation of both a Soil Management Plan and Health and Safety Plan prior to construction and non-emergency utility work.

In addition, although a condition of NSR was found to exist for the current indoor worker, because concentrations of VOCs in groundwater in some areas of the Portion of the Property are above MCP Method 1 GW-2, the AUL requires that construction of new buildings will include either (1) the installation of a vapor mitigation system to control the migration of volatile compounds from groundwater to indoor air, or (2) an evaluation by an LSP concluding a vapor mitigation system is not necessary.

Although the AUL prohibits all future residential use, the primary risk driver for the potential future resident is exposure to contaminants in soil. Therefore, if the pathway to soil exposure were eliminated by a suitable barrier, such as pavement, a building foundation, or clean soil, the Portion of the Property could be developed for multi-family residential use. In order to allow multi-family residential use, the construction of a barrier to soil must be conducted in accordance with the MCP and would require submittal of an Amended AUL that allowed multi-family residential use and a revised Permanent Solution Statement for the Portion of the Property.

6. Summary and Conclusions

This LSP Narrative was prepared to support the implementation of a Notice of AUL for the NSTAR Electric Company d/b/a Eversource Energy property located on MacArthur Drive in New Bedford, Massachusetts, which is located within the limits of the Former New Bedford MGP disposal site (RTN 4-14209). Based on the results of a Method 3 Risk Characterization, and with the implementation of an AUL on a Portion of the Property, it is GEI's opinion that a condition of No Significant Risk will be maintained at the Portion of the Property.

7. Reference Documents

- This LSP Narrative is based on the information presented in:
- GEI, 2018. Revised Phase II Comprehensive Site Assessment and Method 3 Risk Characterization, Former Manufactured Gas Plant, 180 MacArthur Drive, New Bedford, Massachusetts. XXXX 2018.
- MassDEP, 2014. 310 CMR 40.0000. Massachusetts Contingency Plan, with revisions effective June 20, 2014.
- MassDEP, 2014. Draft Guidance on Implementing Activity and Use Limitations, Policy #WSC 14-300. June 2014.