



RHODE ISLAND

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OFFICE OF LAND REVITALIZATION & SUSTAINABLE MATERIALS MANAGEMENT
235 Promenade Street, Providence, Rhode Island 02908

Letter Response to SIR Public Comments File No. SR-22-1631B

January 27, 2023

Thomas A. Abruzese
20 West Extension LLC, TOMORL LLC, and Waites Wharf Realty Assoc., LLC
39 Agar Street
Yonkers, NY 10701

RE: Waites Wharf 2
20 West Extension Street (Lot 267 - 20 West Extension LLC)
16 Waites Wharf (Lot 248 - TOMORL LLC)
Waites Wharf (Lot 272 - Waites Wharf Realty Assoc., LLC)
Newport, Rhode Island
Plat Map 32 / Lots 267, 248 and 272 Respectively

Dear Mr. Abruzese:

On April 22, 2020, the Rhode Island Department of Environmental Management's (the Department) Office of Land Revitalization and Sustainable Materials Management (LRSMM) enacted the codified 250-RICR-140-30-1, Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases (the Remediation Regulations). The purpose of these regulations is to create an integrated program requiring reporting, investigation, and remediation of contaminated sites in order to eliminate and/or control threats to human health and the environment.

In the matter of the above-referenced property (the Site), the Department's OLRSM has received the Responses to RIDEM Comments, 20 West Extension Street (AP 32; L: 267), 16 Waites Wharf (AP 32; L: 248), Waites Wharf (AP 32; L: 272), Newport, Rhode Island (Response to Comments), which was submitted on February 25, 2021, by Sage Environmental, Inc. (Sage) in accordance with Section 1.8 (Site Investigation) of the Remediation Regulations. The Department has reviewed the Response to Public Comments with regard to responses to comments and questions on the technical feasibility of the remedial actions proposed in the Site Investigation Report (SIR). Some of the submitted comments address topics beyond the scope of the SIR and the Remediation Regulations, concerning the siting and permitting of the proposed hotel project, which falls under the local authority of the City of Newport. Certain other comments and questions required responses from the Department and are addressed below.

This document is divided into Department responses to the Sage Response to Comments, followed by additional Department responses to public comments that were not addressed by Sage or that required additional Department clarification.

Department Responses to the Sage Response to Comments:

1. Regarding page 1, paragraph 2, addressing the nature of fill at the Sites:
 - a. The Department acknowledges and concurs with Sage's assertion that there has been no evidence in historic records or during environmental assessment activities of manufactured gas plant (MGP) waste being deposited at either of the Waites Wharf sites. The Department also concurs with the Sage's clarification of the difference between typical urban fill containing coal ash and MGP waste.
 - b. The Department acknowledges the ubiquitous nature of urban fill in historically developed and filled areas of Rhode Island, including the City of Newport. It also concurs that urban fill typically contains elevated concentrations of arsenic, lead and multiple commonly found polycyclic aromatic hydrocarbon (PAH) constituents including but not limited to acenaphthylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, benzo(ghi)perylene, benzo(k)fluoranthene, dibenz(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, pyrene, 2-methylnaphthalene, acenaphthene, naphthalene, and phenanthrene.
2. Regarding page 2, paragraph 2, the Department concurs that concentrations of contaminants detected in soil at the Site should be compared to the Department's Method 1 Industrial/Commercial Direct Exposure Criteria (I/CDEC), not the Method 1 Residential Direct Exposure Criteria (RDEC), since the subject properties meet the Department's definition of "Industrial/Commercial Activity" in Rule 1.4.A.39 of the Remediation Regulations.
3. Regarding page 2, paragraph 3, it is the Department's position that an adequate investigation and remediation was performed at the older original Waites Wharf site (**SR-22-1631A**) in the 1990s to characterize the site and warrant issuance of a Letter of Compliance (LOC) consistent with policy at that time. The Department acknowledges that if the remedy was being completed today, it would likely have included an engineered control cap and an Environmental Land Usage Restriction, which is what is now being proposed by the owner/developer in the Response to Comments (see page 4, paragraph 1). It should also be noted that the completed remedy included the removal of total petroleum hydrocarbons (TPH) in soil to a concentration consistent with the Department's RDEC of 500 ppm, rather than the currently applicable I/CDEC of 2500 ppm, so the TPH remedy implemented at the older site was significantly stricter than current regulations would require.
4. Regarding page 2, paragraph 4, Sage indicates "*RIDEM specifically requested information on evaluations of predicted sea level rise and potential future flooding in the area of the Site, and information related to the durability and resiliency of the proposed remediation in light of these challenges. The remedial design incorporates components aimed at preventing these issues. Any capping approaches designed as part of the redevelopment will incorporate a resiliency component to mitigate potential for erosion or damage associated with sea level rise of storm surge. Please note the current preliminary design includes placement of an entirely new sheet pile sea wall around the perimeter of the Site. The Site civil design does include consideration of such factors.*"

- a. The Department requires additional detail and a description of how the remedial design incorporates components aimed at preventing impacts from predicted sea level rise, storm surge and potential future flooding. Also, please provide additional detail and a description of the planned resiliency components to be incorporated into the capping design to mitigate potential for erosion or damage associated with sea level rise or storm surge.
 - b. The Rhode Island Department of Health (RIDOH) Environmental Health Risk Assessment Program (EHRAP) reviewed the SIR and related files concerning Waites Wharf. In response to community concerns over sea level rise EHRAP suggested that RIDEM request a formal climate change sensitivity analysis before remedial activities begin. The Department is requiring that a formal climate change sensitivity analysis be performed, and the results included when a draft Remedial Action Work Plan (RAWP) is submitted.
 - c. Numerous comments requested some combination of Site and remedy specific modeling of storm surge, sea level rise and flood risk to assess and test the long-term sustainability of the proposed capping remedial strategy. The Department is interested in seeing conclusive modeling simulation results showing the predicted soundness of the proposed capping design with regard to its durability and resilience to future potential storm surge, sea level rise and/or flood risk associated with hurricanes or other extreme weather. The modeling should demonstrate the long-term ability to reliably prevent disturbance of encapsulated impacted soils, and should be submitted with the draft RAWP.
5. Regarding page 3, paragraph 1, the Department concurs that no work involving the disturbance of impacted jurisdictional soils at the property, including subsurface demolition work, foundation removal, and/or redevelopment activities, should be performed without having a Department approved RAWP in place. The final RAWP shall at a minimum contain a project specific soil management plan with all best management practices (BMPs) identified, and an air quality monitoring (AQM) program including work zone and perimeter dust monitoring equipment, defined respirable dust action levels, dust detection response protocols, etc. to prevent dust generation and/or control dust migration.
 6. Regarding page 3, second to last paragraph, the Department understands the property owner's position that the older original Waites Wharf site (**SR-22-1631A**) received a Letter of Compliance in 1996, and therefore unless the hotel redevelopment project, or some other redevelopment project involving that Site receives municipal approval, there are no plans for disturbance or reopening of that Site with respect to the Site Remediation regulatory process. Very recent correspondences have indicated that a revised version of the hotel development may still be under consideration. Please be reminded that it remains the Department's position that any disturbance of the original Waites Wharf site shall also include additional assessment of soil as a requirement of the plan. Before any subsurface disturbance may be initiated, supplemental investigation must be performed to confirm that environmental conditions have not significantly changed since the original assessment work was

completed.

7. Regarding page 4, paragraph 1, the Department concurs that it is appropriate to enhance the remedy at the original Waites Wharf site (**SR-22-1631A**) by installing a site-wide engineered control cap and recording an Environmental Land Usage Restriction (ELUR) requiring annual inspections and monitoring of the remedy to insure it is not disturbed and remains resilient.
8. Regarding page 4, paragraph 2, Sage indicates *“Furthermore, resiliency controls are proposed as part of the redevelopment, independent of the environmental conditions, with a focus upon protecting against storm surge, erosion, and damage from sea level rise.”* As previously requested above, please provide details about what resiliency controls are proposed, how they will be implemented and how they will function to protect against storm surge, erosion, and damage from sea level rise.
9. Regarding page 4, paragraph 3, the Department acknowledges that capping the Site with an appropriately designed and maintained engineered controls should prevent potential future direct exposure to any residual contaminants in site soils and is consistent with remedies approved by the Department at several other similar sites in the Newport waterfront area (see also response 14 below).
10. Regarding page 4, paragraph 5, the Department concurs that no conditions have been found at Waites Wharf that are related to or similar to the Tiverton site referenced in public comments.
11. RIDOH/EHRAP reviewed all the Waites Wharf environmental assessment information, in light of the proposed redevelopment, and provided the following recommendations to RIDEM:
 - a. EHRAP recommends that workers and nearby residents take precautions to minimize contact with contaminated soil at the Waites Wharf lots.
 - b. EHRAP agrees with the 2020 site investigation report in recommending soil encapsulation (i.e., ≥ 6 inches clean soil and ≥ 4 inches asphalt) and institutional controls as the remedial alternative.
 - c. EHRAP recommends at least one of the following options for the western property lots:
 - i. Additional soil sampling at Lots 155 and 268 (western lots) to isolate surface soil for more accurate exposure dose calculations, and/or
 - ii. Soil encapsulation (i.e., ≥ 6 inches clean soil and ≥ 4 inches asphalt) and institutional controls as the remedial alternative, consistent with the 2020 site investigation report recommendations for Lots 267, 272, and 248 (eastern lots).

Department responses to public comments that required additional Department clarification:

Because many of the comments and questions were repeated by commenters, the Department is addressing each applicable topic in a response, rather than repeating the same response numerous times throughout this document.

12. Various comments and/or statements received indicating that the submitter of the comment is in opposition to the permitting, construction and/or operation of the proposed Hotel redevelopment on the Waites Wharf property.
 - a. The siting, zoning approval and construction permitting of the proposed Hotel are all outside the scope of the Department's authority. The Department acknowledges that a significant percentage of comments from the public and community indicated a clear opposition to the overall Hotel project. The Department does consider the use, reuse and/or end use of a Site when a Site remedy is proposed. The remedy must be consistent with the proposed usage of the Site, and the proposed Site usage often dictates what the final remedy will be, and what future activities will be restricted at the Site (e.g. restrictions from drinking impacted Site groundwater, restricting residential usage, prohibiting disturbance of impacted Site soil without prior Department approval, long-term monitoring, maintenance, periodic inspections and reporting for all engineered control caps to ensure they remain in good condition, etc.). The Department's Site Remediation Program can review and approve the investigation and remediation of a property. It cannot dictate the current use or end use of that property, other than to periodically monitor any restrictions on the usage of the property, which may be part of a Department approved remedy. The Department does not have the authority to control or change a Site's current or proposed usage. That authority typically rests with the local zoning board, other municipal offices, and local permitting authorities as applicable.

13. Concerns that while the newer Waites Wharf site (often described in comments as the 10%) was investigated sufficiently, that the original Waites Wharf site (often described in comments as the other 90%), was not sufficiently investigated and needs further investigation.
 - a. For clarity, the primary subject of the current regulatory process is the newer Waites Wharf 2 Site (**SR-22-1631B**) comprised of three parcels, Plat 32, Lot 267, Lot 248 & Lot 272, which total approximately 0.47 acres. The older original Waites Wharf Site (**SR-22-1631A**) is a separate project comprised of two parcels, Plat 32, Lots 155 & Lot 268, which total approximately 2.07 acres.
 - b. A Site Investigation Report (SIR), dated May 28, 1993, was prepared for the original Waites Wharf Site. A total of 23 soil borings and 6 groundwater monitoring wells were completed with samples collected and analyzed. The first 8 soil samples were collected from the subsurface in the (5-17 ft) range, with 3 borings completed as groundwater monitoring wells. The subsequent 15 soil borings included soil

samples collected between 2-14 ft below ground surface (bgs), with 3 more completed as groundwater monitoring wells. Soil sampling was completed for total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), PAHs, and Toxicity Characteristic Leaching Procedure (TCLP) RCRA-8 metals. Groundwater was tested for VOCs, total RCRA-8 metals, polychlorinated biphenyls (PCBs), and TPH. One exceedance of the current RIDEM Method 1 Industrial/Commercial Direct Exposure Criteria (I/CDEC) for TPH was detected in soil sample SB-5 at 4-8 ft bgs for TPH at 5724 parts per million (ppm), over the TPH I/CDEC of 2500 ppm. A single exceedance for TCLP lead (5 ppm) was detected in soil sample SB-1 (24.5 ppm) at 4-6 ft bgs. In groundwater benzene was detected in one well (MW-1) at a concentration of 0.3 ppm exceeding the RIDEM Method 1 GB Groundwater Objectives (GBGO) of 0.14 ppm. There were no other exceedances in soil or groundwater based on comparisons to the current applicable Department standards in the Remediation Regulations.

- c. After the SIR, a Remedial Investigation Report, dated April 28, 1994, was prepared for the original Waites Wharf Site. A total of 41 additional soil borings were installed with 5 becoming groundwater monitoring wells. Soils were sampled for TPH, VOCs, PAHs, and total and TCLP lead. Two exceedances of the current I/CDEC for TPH of 2500 ppm were detected in subsurface soil at TW-3 (9850 ppm) and at SB-26 (3670 ppm). Three exceedances of the current I/CDEC for total lead of 500 ppm were detected at SB-2 (538 ppm), SB-4 (1220 ppm) and SB-10 (1994 ppm). Two exceedances for TCLP lead (5 ppm) were detected in soil samples SB-4 (10.7 ppm) and SB-8 (9.27 ppm). Groundwater was sampled for VOCs, total and soluble metals, PAHs, and TPH. There were no other exceedances in soil or groundwater based on comparisons to the current applicable Department standards in the Remediation Regulations.
- d. A subsequent Proposed Remedy document, dated July 6, 1994, proposed to remove existing sources of contamination, i.e. 275 gallon fuel oil underground storage tank (UST) and waste oil UST; removal and disposal of soils above the water table that are disturbed during removal of the 2 USTs; backfilling of the tank excavations with clean fill; removal of 2 empty aboveground storage tanks (ASTs) at the center of Lot 268; natural attenuation and a deed restriction (it should be noted that Environmental Land Usage Restrictions did not exist in Department regulations at this time).
- e. The Department conditionally approved the proposed remedy in a letter issued August 5, 1994, which also required that the 275 gallon UST and the waste oil UST be properly registered, closed and removed; the presence or absence of additional USTs must be determined and if located, all USTs must be properly registered, closed and removed; remove and properly dispose of the 2 empty ASTs; resample the 0 – 2 ft bgs intervals of all soil boring locations in unpaved areas that reported TPH concentrations exceeding 500 ppm at any point throughout the boring, any surficial samples over 500 ppm TPH required disposal; and backfill all excavations with clean fill.

- f. The 2 ASTs were removed, and a total of 4 USTs were closed out under the Department's UST Program.
- g. A Letter from SAI Consulting Company, dated January 19, 1996, is notable for its description of the general environmental quality of properties along the Newport waterfront. Excerpts from that letter follow:
 - i. *“As previously discussed, SAI Consulting Company (SAI) has been involved in the permitting of the Waites Wharf Property in Newport, Rhode Island since October 1987. During this elapsed period, SAI has sampled the soil and groundwater on the property and in the riparian area for hotel and marina development for the previous owner; and for UST removals and closure in place for the present owner. SAI has also completed similar work on the Tallman and Mack site which abuts the subject property to the north; the Newport Electric Company site, two (2) properties to the north; Coddington Condominium the abutting property to the south; and Lees Wharf and Manchester Wharf, both of which are located on Thames Street to the north. It should be noted that all of these sites are filled property and that the groundwater layer sampled by SAI is influenced by tidal flow from Newport Harbor.*

SAI believes to the best of our knowledge, that the Waites Wharf property is typical of the properties SAI has investigated along the Newport waterfront, and that there are not on-site conditions which will result in the degradation of Newport Harbor, or the groundwater located under the subject property, as determined by currently recognized standards used for the Newport waterfront.”

The SAI letter indicates that many of the nearby and adjacent properties have been subject to environmental investigation and characterization, and have exhibited similar levels of historic urban fill type impacts to soil.

- h. The Department does not concur with the public comments and assertions that indicate the older original Waites Wharf Site (**SR-22-1631A**) was not properly investigated, or that there is an insufficient number of samples collected to characterize the older Site vs. the newer Site. A total of 64 soil borings were installed with 11 being completed as groundwater monitoring wells during the various investigation activities at the older site. During those investigations, soil at the older site was sampled for TPH, VOCs, PAHs, total and TCLP RCRA-8 metals, and groundwater was tested for VOCs, total RCRA-8 metals, PCBs, and TPH. Only lead (6 samples) and TPH (3 samples) were detected above current regulatory limits in soils at depth. The remedial objective for TPH in soil in the UST closure areas and the top 2 feet of surface soil at the Site was 500 ppm, which is the current RDEC for TPH, and significantly lower than the currently applicable TPH I/CDEC of 2500 ppm. Benzene was detected in 1 of the 11 groundwater wells above the

GBGO as reported in the 1993 SIR, but was not detected during the 1994 Remedial Investigation, and all existing suspected sources of the benzene (i.e. 2 ASTs and 4 USTs) were removed and/or properly closed in accordance with the requirements of the Department's UST Program. Vinyl chloride was included in the groundwater analysis during the SIR and the Remedial Investigation, but was never detected at the older site. Vinyl chloride was detected in 1 soil sample at the newer site at a concentration of 0.191 ppm, above the RDEC of 0.02 ppm, but below the applicable I/CDEC of 3.0 ppm, and was not detected in groundwater at the newer site.

- i. The Department acknowledges that cyanide was not included in the sampling of the older site, but notes that it was included in the analysis at the newer site, and was not detected at concentrations exceeding the laboratory reporting limits.
14. For further comparison, the Department looked at the environmental quality of soil and groundwater at several other similar nearby Newport waterfront Sites that were recently investigated and remediated:
- a. **Newport Yachting Center, 4 Commercial Wharf, Newport (SR-22-1748), redeveloped as a hotel.** Soil at the Site was determined to be impacted with urban fill containing levels of arsenic, lead, and select PAHs in excess of the RIDEM Method 1 Residential Direct Exposure Criteria (RDEC) and/or the Industrial/Commercial Direct Exposure Criteria (I/CDEC). Site groundwater did not exceed the applicable RIDEM GB Groundwater Objectives (GBGO). A Public Comment period for the proposed remedy was conducted in October of 2014, and no public comments were received. The remedy approved by the Department, and completed in October 2020, included targeted soil removal necessary for redevelopment activities and capping of remaining soil exceedances at the Site with various Site-wide engineered caps, and recording of an Environmental Land Usage Restriction (ELUR) and Soil Management Plan (SMP).
 - b. **Lee's Wharf, 24 Lee's Wharf, Newport, (SR-22-0732), redeveloped as a waterfront hotel.** Soil at the Site was determined to be impacted with urban fill containing levels of arsenic, lead, PAHs and TPH from former underground storage tanks (USTs) in excess of the RIDEM Method 1 RDEC and/or the I/CDEC, and lead in soil exceeding hazardous waste characteristic levels. Site groundwater did not exceed the applicable RIDEM GBGO. A Public Comment period for the proposed remedy was conducted in August of 2021, and no public comments were received. The remedy approved by the Department on April 21, 2022, included on-site treatment of approximately 385 yards (580 tons) of hazardous waste level lead impacted soil by United Retek using a Portland cement-based amendment to bind the lead to remove its bioavailability and leaching potential. Following laboratory analytical confirmation of successful treatment, the treated soils were reused on the Property as grading/fill beneath Department approved caps. Remaining soil exceedances at the Site were capped with various Site-wide engineered controls, followed by the recording of an ELUR and SMP.

- c. **Brown & Howard Wharf, Newport, (SR-22-0414), currently occupied by a mixed-use, office, retail, and residential building constructed in 2014.** Soil at the Site was determined to be impacted with urban fill containing levels of arsenic, lead, beryllium, PAHs and TPH in excess of the RIDEM Method 1 RDEC and/or I/C-DEC, and TPH above the RIDEM GB Groundwater Leachability Criteria (GBLC). Concentrations of VOCs and semi-volatile organic compounds (SVOCs) were detected in groundwater but did not exceed the applicable RIDEM GBGO. A Public Comment period for the proposed remedy was conducted in April of 2022, and no public comments were received. The Department is currently reviewing a draft Remedial Action Work Plan for a proposed remedy including maintaining existing engineered controls (pavement, concrete, and building foundations) and the installation of a cap over any landscaped areas as a barrier to soil exceedances at the Site, and the recording of an ELUR and SMP.

15. Comments comparing the contamination detected in soil at Waites Wharf to the Bay Street Site in Tiverton, Rhode Island.

- a. The following summary is based upon conversations with, and documentation provided by, Department staff familiar with the Bay Street Tiverton Site. On August 16, 2002, workers digging for the Town of Tiverton and Starwood LLC, a private development company, uncovered unusually bright-blue tinged soil and sediment underneath the road. Testing confirmed that much of soil underneath roads and private properties in the Bay Street. neighborhood was contaminated with toxic levels of cyanide, lead, arsenic, benzo(a)pyrene and other PAHs. The Department verified that the toxic soil was characteristic of Manufactured Gas Plant (MGP) waste and determined the likely source was New England Gas Company (NEGC) owned by Southern Union Gas Company (SUGC), whose Fall River coal gasification plant was located only a half mile away across the Massachusetts state line. In the early 20th century, waste from that plant was likely used as fill to develop the Bay Street neighborhood.
- b. There is a significant difference between MGP waste and urban fill containing coal ash. The Bay Street Tiverton Site had buried MGP waste which included cyanide. There has been no documentation of disposal of MGP waste at either of the Waites Wharf Sites. The material identified in various Site Investigation Reports has the characteristics of urban fill and appears to be consistent with the level of contamination common in filled areas along Newport Harbor.

16. Concerns that coal ash or other contaminants potentially containing cyanide were dumped and/or historically used as fill at Waites Wharf.

- a. It should be clarified that coal ash is an historic byproduct of burning coal for heating homes and businesses, and is very different than coal tar and the other byproducts of the manufactured gas process. Coal ash was historically used as fill in city and town areas throughout Rhode Island and is commonly referred to under the umbrella term of urban fill. Urban fill typically contains various inorganic

compounds, such as arsenic and lead at concentrations greater than commonly found in naturally occurring environments, as well as PAHs which can result from incomplete combustion and are not naturally occurring in the environment. Urban fill and coal ash in general do not typically contain significant concentrations of cyanide. Some byproducts of the manufactured gas process (e.g. oxide box waste) often do contain elevated concentrations of cyanide. This is what was dumped at the Bay Street site in Tiverton, and is why cyanide is a contaminant of concern at that site. There is no record or evidence that MGP waste, oxide box waste, coal tar or any contaminated materials containing cyanide were ever dumped or buried at Waites Wharf.

- b. What is the source of cyanide in the manufactured gas process? Following cooling, a number of impurities had to be removed from the manufactured gas before it was used. Sulfur and cyanide compounds were removed by passing the gas through "purifier beds" made up of either lime or wood chips impregnated with iron filings. Chemical reactions would take place between the gas and the purifier material removing impurities. The beds of purifier material were recycled, but they would eventually load up with tar and other materials and become unusable. At this point, the material would become a waste material and required disposal. Purifier Waste is typically found as a dark mixture of wood chips with a very strong, unpleasant burnt odor. Once exposed at the ground surface, the waste will often develop an iridescent blue color known as "Prussian Blue." Purifier waste often contains significant quantities of chemically complexed cyanide compounds. To reiterate, cyanide is not a contaminant of concern at Waites Wharf and there is no indication that MGP waste was ever present at the Site.
17. Comparison of the contamination detected in soil at Waites Wharf to the Wellington former Manufactured Gas Plant Site located to the south of Waites Wharf, and allegations that manufactured gas plant (MGP) waste from the Newport Gas Company was dumped and/or buried on the Waites Wharf property.
- a. There are several former MGP sites in Rhode Island and Rhode Island Energy (RIE) is the responsible party for those Sites where jurisdictional releases of MGP impacted materials have been identified. RIE was asked if they have any records of MGP utility activities at Waites Wharf by RIE predecessors, or of the company using that location as a dump site, and RIE replied indicating the following:
 - i. *"We reviewed the March 2020 Site Investigation Report (SIR) prepared by Sage Environmental, Inc. for the properties in Newport, RI designated by the City of Newport as AP32 L:267; AP32 L:248 and AP32 L:272. Based on the review of the laboratory analytical data and the boring logs within the SIR, the materials described in the SIR are consistent with typical urban fill. The materials described are not consistent with manufactured gas plant (MGP) residuals."*
 - ii. *"At this time, we have no knowledge of the Company or any predecessor*

Company ever owning or using the Waite's Wharf property or City of Newport designated lots AP32 L:267; AP32 L:248 and AP32 L:272 for any manufactured gas plant (MGP) related activities."

- b. There is no record or evidence that MGP waste, oxide box waste, coal tar or any contaminated materials containing cyanide or other MGP related materials were ever dumped or buried at Waites Wharf.
18. Requests that the Department and Newport Planning and Zoning boards take into account future conditions such extreme weather events, weather pattern changes, impacts of sea level rise, storm surges, potential flood risks and other hazards that are expected to increase in frequency and severity due to climate change, with regard to the resilience of the proposed remedy, and recommendation that storm surge modeling and sea level rise and flood risk assessments be utilized to test the long-term sustainability of the capping strategy and flooding impacts on the Site and adjacent properties.
- a. The Department is requesting further detail regarding the resiliency of the remedial design and per RIDOH/EHRAP recommendations requiring that a formal climate change sensitivity analysis be performed to address the items identified above. The Department addressed proposed modeling in further detail in responses 4.a, 4.b and 4.c above.
19. Concerns about the appropriateness and sufficiency of an engineered control cap remedy, and related questions about the likelihood of subsurface impacts at the original Waites Wharf site migrating into the harbor, neighborhood or the rest of the City at significant enough concentrations to present a health hazard or cause property damage.
- a. The proposed remedy involves encapsulation of all impacted soil at the site. The Department is requiring that the remedy be designed to be durable and resilient in the face of anticipated area sea level rise, storm surge, and extreme weather associated with continuing climate changes. Proper construction of the proposed capping remedy, along with installation of the entirely new sheet pile sea wall around the perimeter of the Site, should provide appropriate containment to prevent any future releases or migration of impacted soils from the site. It should also afford a level of protection from extreme weather events and flooding that significantly exceeds that of the majority of the surrounding area properties and will be maintained to prevent the movement of encapsulated impacted soil from Waites Wharf. The ELUR will require annual inspections of the engineered control cap and sea wall and will require prompt notification to the Department should deficiencies be noted with a plan and schedule for required repairs. The Department may also perform periodic ELUR audits on sites for additional compliance verification.
20. Concerns about the detection and potential risks from the “*many benzene chemicals*” or the “*11 other benzene chemicals*” detected in soil at Waites Wharf.

- a. Sage presented a list of detected PAHs in second paragraph of page one of the Response to Comments document (also referenced in response 1.b above). Many of the listed PAHs have benzene in their names and are often found together. PAHs are a common contaminant in urban fill, which is known to be distributed throughout the historically filled areas of Newport. Similar to the metals found in urban fill, the risk from exposure to elevated concentrations of PAHs typically comes from direct contact (i.e. touching soil or inhaling dust). The proposed capping remedy removes the direct exposure pathway by placing a barrier (cap) between the encapsulated impacted soil and a person.
21. General concerns about the risks from contaminants currently at the site and potential exposure during remedial activities that disturb impacted soil at the Site.
- a. Properly implemented erosion, sedimentation, dust and vapor monitoring and control procedures conducted under the final Department approved RAWP will limit significant increased potential for short-term harm during RAWP activities involving the disturbance of impacted soil. Once the RAWP work is completed and any remaining impacted soil is controlled under an engineered cap, future exposure and associated risk will be prevented.
22. A question from a member of the community concerning the current Waites Wharf property owner's reluctance to have additional environmental assessment performed on the original Waites Wharf site and asking if someone else could be allowed to perform additional investigation and prepare a new Site Investigation Report (SIR) for the original Waites Wharf site.
- a. There is nothing in the Remediation Regulations that would prevent a third party from conducting investigation work on a property that is not owned by that third party, should the property owner be agreeable to the performance of that work. The decision to allow a third party to conduct investigation work on a property is that of the property owner. Legal access to the property to perform the work would need to be negotiated with the property owner and would typically include protections for the property owner regarding restoration in the event of property damage and/or any other adverse impacts caused during, or as a result of, the assessment work.
 - b. Based upon review of the results of investigation work performed to date, the Department is not currently requiring any additional investigation work for the new Waites Wharf site, and as indicated previously above, the Department will only require additional assessment work at the original Waites Wharf site if significant site disturbance or redevelopment is eventually proposed (see response 2, 5 and 6 above). The Department does concur with the proposal to install a new resilient engineered control cap on the older Waites Wharf site, as well as recording an ELUR.
23. Several comments requesting that the Department require full removal of all contamination at the Site rather than allowing a cap, or similarly phrased requests expressing the opinion

that the safest remedy is complete removal of all contamination which is preferred over the less expensive proposed capping remedy.

- a. Under the Department's Remediation Regulations, a Responsible Party is required to remediate a Site to a degree that is consistent with the Site's current and foreseeable future usage. In this case, the current Site usage, and proposed future development of the Site with a hotel, are both consistent with the definition of Industrial/Commercial Activity in Rule 1.4.39 of the Remediation Regulations. Therefore, the property owner/developer is required to propose and implement a remedy that is consistent with Industrial/Commercial usage, which is what they have proposed in the SIR with the encapsulation remedy.
- b. The Department may deny an applicant's proposal if it is deficient or not compliant with the Remediation Regulations. During the public comment period, technical comments on the proposed remedy are solicited and are considered by the Department and the Responsible Party. However, the Department is not obliged to automatically require the originally proposed remedy to be modified to an alternative remedy if the proper implementation of the original remedy will result in compliance with the Remediation Regulations. The final RAWP will require that all plans (including engineered controls, sheet pile seawalls, and additional resiliency controls) be reviewed and stamped by a Rhode Island Professional Engineer familiar with such projects. The RAWP will also be subject to review and comment by the Rhode Island Coastal Resources Management Council (CRMC) regarding the coastal design considerations and remedy implementation.

24. Request that Department consult with top climate experts and *"guarantee that these toxic wastes can never be let loose no matter how violent a storm hits Newport."*

- a. It is known that the majority of the land along Newport Harbor was historically filled, and investigations of other nearby and representative properties have detected at least similar levels of contamination as Waites Wharf, some substantially higher. Therefore, there is no way to guarantee that contaminated soil would not leave Waites Wharf or other surrounding similarly impacted properties during an historic extreme weather event, since an event severe enough to disturb Waites Wharf would also likely disturb impacted soils on many surrounding properties. It is expected that the construction of the proposed capping remedy, along with installation of the entirely new sheet pile sea wall around the perimeter of the Site, will provide a greater level of protection from extreme weather events and flooding that significantly exceeds that of the current Site conditions as well as the majority of the surrounding area properties. In addition, the ELUR that will be recorded will require the Site to be annually inspected to assure that it is properly maintained to prevent the future movement of encapsulated impacted soil from Waites Wharf.

25. Questions asking who is responsible if a storm moves contamination from the site and impacts a neighboring property or who is responsible for the cleaning the resultant

pollution?

- a. Under the Remediation Regulations, the owner of Waites Wharf is the Responsible Party for all investigation and remediation of the Site. They would be responsible if a failure of the remedy resulted in a documented release of contamination from their site onto a neighboring property. As previously stated, it is expected that the construction of the proposed capping remedy, along with installation of the entirely new sheet pile sea wall around the perimeter of the Site, will provide a level of protection from extreme weather events and flooding that significantly exceeds that of the majority of the surrounding area properties and will be maintained to prevent the movement of encapsulated impacted soil from Waites Wharf.
- b. It has been noted above that numerous properties along the Newport waterfront have documented soil impacts from historic filling. It is believed that all the waterfront properties, including those where environmental assessments have not been performed, have also been subject to historic filling. The fact that the subject site has been impacted by contamination consistent with urban fill (i.e. metals, PAHs and residual TPH) would make documenting attribution from Waites Wharf as a sole source for contamination on adjacent or neighboring properties extremely difficult or impossible, particularly if the affected property did not have a baseline environmental assessment documenting that it was not already similarly impacted.

26. A question regarding remediation of the Site in relation to protection of area drinking water.

- a. The subject site is not located in an area where groundwater is used as a source of drinking water. The Newport Water System is owned by the City of Newport and operated and maintained by the City's Department of Utilities, Water Division. The sources of water for the Newport Water System are not located in the vicinity of the subject Site.

27. Submittal of a CRMC map for Waites Wharf highlighting the extent of areas that will be impacted by sea level rise scenarios of 1, 2 and 5 feet.

- a. The Department acknowledges that Waites Wharf is located in a waterfront area that will be impacted by sea level rise. The Department is requesting further detail regarding the resiliency of the remedial design and per RIDOH/EHRAP recommendations requiring that a formal climate change sensitivity analysis be performed to address sea level rise and flooding. The Department is also requiring that modeling of the remedy be performed (see responses 4.a, 4.b and 4.c above).

28. The Department received a request to extend the Public Comment Period from 14 days to 28 days.

- a. The Department approved the request to extend the Public Comment Period from 14 days to 28 days.

29. Comment questioning the integrity of the remediations performed in the mid-90s. Specifically, have the means and methods installed proven to be effective and have those remedies been maintained (degradation, erosion, etc.)?
- a. The remedy implemented at the original waterfront Waites Wharf site (SR-22-1631A) involved the removal of elevated TPH contamination in soil to a concentration consistent with current RDEC (i.e. a residentially compliant standard) and maintaining the property usage as industrial/commercial, which has been maintained.
30. Comment questioning if any modifications (demolition, refurbishment, new construction) to the project area have been performed in a manner so as to not disturb or degrade the remediation performed in the 1990s.
- a. The Department is not aware of any modifications to the original waterfront Waites Wharf site (SR-22-1631A) that would result in the disturbance or degradation of the remedy performed in the 1990s.
31. Comment questioning if the current operations being conducted on these properties are licensed and certified compliant with DEM regulations.
- a. The Department is not aware of any activity at either Waites Wharf site that is currently out of compliance with the Department's Remediation Regulations or the Site Remediation Program's regulatory process. The original waterfront Waites Wharf site (SR-22-1631A) received a Letter Of Compliance (LOC) in 1996, and the newer Waites Wharf 2 site (SR-22-1631B) has not yet achieved compliance, but is currently progressing through the regulatory process in accordance with the requirements of the Remediation Regulations.
32. Comment questioning if the 1990s remedy meets current regulatory requirements.
- a. The remedy for the original waterfront Waites Wharf Site (SR-22-1631A) was acceptable at the time it was proposed and implemented in the 1990s, and consistent with similar remedies approved during that time period. The majority of current remedies for similar industrial/commercial Sites in Rhode Island include encapsulation of impacted soils and recording of an ELUR and SMP, which is what is being proposed now for the original waterfront Waites Wharf Site. Additionally, the proposed remedy includes repair and fortification of the bulkhead along the waterfront of the Site (currently under CRMC review). Please also see response 3 above.
33. A question was received asking if the Letter of Compliance (LOC) issued for the older Waites Wharf site needs to be updated.
- a. Under current and prior established Department policy, the LOC issued for a Site would stand as issued, and not require any future updating after the date it was issued.

34. A question was received asking if the issuance of the LOC for the older Waites Wharf site represents Department approval for a Demolition Permit.
- a. The City of Newport has authority over the issuance of a demolition permit in the City of Newport. The consultant for the Site owner/developer has been informed by the Department, and has indicated their understanding, that should the City of Newport issue a demolition permit, no impacted soil at the Site should be disturbed until there is a Department approved RAWP. In practical terms, all demolition activities must be limited to above grade until a site specific RAWP is approved.
35. A concern was raised about flooding of the entire neighborhood if the ground surface at Waites Wharf is raised higher than the surrounding surface levels.
- a. Any redevelopment work on the Waites Wharf property will require CRMC approval of a plan for management of all Site stormwater on the property, so there should be no resulting stormwater flooding impacts to adjacent area properties originating from Waites Wharf. The stormwater management requirements should also result in a decrease in potential stormwater runoff contribution from the Waites Wharf property.
 - b. Regarding the increase in potential flooding from sea level rise or storm surges on neighboring coastal properties, the raising of the ground surface at Waites Wharf should not result in sea level rise or contribute to flooding potential on neighboring properties. As stated above, CRMC will also be reviewing any redevelopment plans for the sites.
36. Request that the Department take into consideration the cumulative impacts of the hotel project proposal in relation to the City of Newport's Comprehensive Land Use Plan and the recent area development of other large hotels.
- a. This request falls outside the scope of this public comment process which, per the requirements of the Remediation Regulations, is limited to review of substantive technical comments related the investigation and proposed remedy at the Site. As correctly noted in the comment, the various City of Newport departments have the local regulatory authority regarding planning, reviewing, approving and/or determining whether or not a redevelopment project is appropriate for the location. The Department does not have authority with respect to municipal Comprehensive Land Use Plans.
37. Concerns raised about potential contamination from an historic 10,000-gallon heating oil tank spill in 1984 (Spill Report missing) and an historic 1000-gallon gasoline spill in 1916.
- a. After multiple searches through all the files related to the Waites Wharf site throughout the Department, a copy of part of a 10,000-gallon heating oil spill report from 1984 was very recently located as an attachment to a 1994 Closure Inspection

Report for Underground Storage Facilities in the UST Files. It is believed that this is the spill that was referenced in the 1993 SIR. According to the Spill Report, the spill occurred on September 26, 1984, and was reported by Robert Benivedes, Manager for the then property owner, D.J. Sullivan Company. The report is limited in scope and indicates that the release was to Newport Harbor and estimates that as of November 20, 1984, 4800 gallons had been recovered by Clean Harbors. The indication that the release was to the harbor may explain why there was little evidence of groundwater impacts at the Site in the 1993 and 1994 investigations, and during the current sampling events.

- b. There were no environmental records or other documentation of the 1916 spill located during a search of Department files. Based upon review of the analytical environmental data from the sampling that has been performed to date, there is no indication that there are any current ongoing significant impacts to Site soil or groundwater from the century old spill.

In summary, environmental assessment data indicates that soils at the Waites Wharf properties are impacted by historic urban fill containing elevated concentrations of arsenic, lead and PAHs. There are also residual levels of petroleum contamination in soil on the older Waites Wharf site, associated with the former operation of ASTs and USTs (all now closed). There is no historical record or analytical evidence of manufactured gas plant waste being buried or dumped on the property. The levels of detected soil impacts are consistent with, and not significantly different from, those conditions identified on many area Sites along the Newport waterfront. The Department acknowledges that due to the site's waterfront location, the proposed capping remedy must be properly designed and constructed to be durable and resilient in the face of anticipated area sea level rise, storm surge, and extreme weather, associated with continuing climate changes. Therefore, this was the primary focus of the Department's questions and responses back to Sage.

The Department requests that Sage, on behalf of its client, provide detailed responses, as appropriate, to the Department's comments listed above. If you have any questions regarding this letter, please contact me by telephone at (401) 222-2797, extension 2777109 or by e-mail at joseph.martella@dem.ri.gov.

Sincerely,



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