



## CITY OF NEW BEDFORD

SCOTT W. LANG, MAYOR

### ***Response to comments received on the RELEASE ABATEMENT MEASURE PLAN: SOIL EXCAVATION AND REMOVAL NEW BEDFORD HIGH SCHOOL***

The following are comments (shown in italics) which were received by the City on the *Release Abatement Measure (RAM) Plan* for the New Bedford High School campus. The City's response follows each comment.

\*Note: Comments which were submitted on the *RAM Plan* during the March 2, 2011 Public Involvement Plan (PIP) meeting are also included in this document for completeness.

- 1. The RAM Plan states that the volume of soil to be excavated is: 4,860 cubic yards (p. 4-2), 2,095 cubic yards (p. 5-1), and 6,661 cubic yards (Drawing C-102). Also, page 4-2 states that 119 cubic yards will be excavated at locations HB-23 and HC-22, while Drawing C-101B states that 357 cubic yards will be excavated at these locations. The community may want to request that the City clarify these soil volumes.**

The soil volumes values have been updated and revised to consistently present this information in the final RAM Plan. The correct total volume for soils to be excavated is 4,860 cubic yards, and the correct volume of soils to be excavated at sample locations HB-23 and HC-22 is 357 yards.

- 2. The need for response actions in each of the eleven areas discussed in the Draft RAM Plan rely upon the results and assumptions of the risk characterization presented in the Draft Phase II Comprehensive Site Assessment (CSA) for the Campus dated January 2011. Because this risk characterization has not been approved, it must be noted that performance of any or all of the proposed RAM activities may not be adequate to address the risks to human health posed by the contamination to the Campus. In fact, the Massachusetts Department of Environmental Protection (MassDEP), in its letter dated January 13, 2011, clearly states that further testing is required for dioxin in order to assess the risks to human health at the Campus. Furthermore, MassDEP and others are likely to provide comments on other elements of the Draft Phase II CSA including the risk characterization that may result in the requirement for further remedial measures in areas immediately adjacent to the 11 areas discussed in the Draft RAM Plan.**

Per the Massachusetts Contingency Plan (MCP), Release Abatement Measures are intended to reduce risks at a disposal site and/or increase the cost effectiveness of response actions by allowing the implementation of accelerated remedial actions to stabilize, treat, control, minimize or eliminate releases until such time as a Response Action Outcome is achieved. As described in the draft RAM Plan and supported in the Phase II CSA, the removal of the soil volumes targeted and the installation of additional paved surfaces as exposure barriers will lead to a demonstrable reduction in risk. The City is aware that the work cannot proceed without written approval of the RAM Plan by MassDEP, consistent with past practice on this site for all RAM Plan activities.

- 3. It is unknown whether the existing chemical testing data used to perform the risk characterization are of adequate quality. Many of the TRC reports have a section on data quality and state that the results are reviewed by a chemist. However, Roux Associates has not seen an opinion prepared by the TRC chemist or the LSP that states that the data are of adequate quality to support a risk characterization or any of the other Massachusetts Contingency Plan (MCP) opinions. In fact, the TRC data assessment sections in reports state that the data generated by BETA were not reviewed "except on a limited basis". Therefore, it is unknown whether the BETA data, to the extent that they are being used, are of adequate accuracy and precision to support the risk characterization.**

Data usability evaluations and/or data validation are performed on an ongoing basis to support regulatory submittals where required. Data usability evaluations and/or data validation were performed on all data used in support of the risk characterization. Data usability evaluations were also performed on all data generated from BETA sampling activities. Any data points that were deemed unusable due to quality control issues were not used in the risk characterization and were flagged as rejected ("R" on the data tables); refer to antimony and thallium results in Table 4-9 of the Phase II CSA. In submitting the RAM Plan, the LSP certifies in part his opinion that the report has been developed and implemented in accordance with the applicable provisions of the MCP and is appropriate and reasonable. Further, as identified in the MCP Section 40.1056(2)(k), entitled Content of Response Action Outcome Statements, "for all Class A, B, or C Response Action Outcomes, a Data Usability Assessment documenting that the data relied upon is scientifically valid and defensible, and of a sufficient level of precision, accuracy, and completeness [is required] to support the RAO, and a Data Representativeness Evaluation, documenting the adequacy of the spatial and temporal data sets [is required] to support the RAO." A Data Representativeness Evaluation and full data usability assessment documentation will be included in the RAO statement and are not required in the RAM Plan.

- 4. Roux Associates recommends that confirmatory samples be collected from each of the excavations prior to backfilling. This will allow the City of New Bedford to have data that are comprehensive in terms of parameters tested and of known quality to support further opinions. Alternatively, the City of New Bedford is subjecting its future opinions to uncertainties that may require further investigations at a later date.**

The City has utilized the pre-defined excavation boundary approach on the project to facilitate detailed planning, demonstrate risk goal achievement, and to support cost-estimation and bidding processes. This approach greatly facilitates the execution of remedial activities in the field, allowing the remedial team to work in concert with the ongoing athletic and educational activities in the area with minimal, if any, disruption. MassDEP has approved the approach on five soil removals conducted to date by TRC on behalf of the City at Walsh Field, New McCoy Field, and the NBHS Campus. This includes the recent successfully performed HF-31 RAM at the NBHS Campus where both MassDEP and EPA approved of the pre-defined excavation boundary approach. The City plans on conducting the upcoming soil removal work at the NBHS Campus using the same approach.

- 5. It is Roux Associates' opinion that there are inadequate details to judge the Draft RAM Plan. Throughout the Draft RAM Plan, TRC uses the term "may" to indicate that a wide range of decisions/plans have not yet been decided or made. This is in stark contrast to Section 6.3.1 of the Draft RAM Plan which specifies clear criteria.**

The commentator is correct that the word "may" is utilized in the report. The word "may" occurs in 8 locations in the 24 pages of report text and is used appropriately in each case to indicate

contingent elements of the plan as well as where decision making by other parties has an impact on a subsequent set of activities. For example, on page 5-2, the plan states, with reference to the potential for use of out of state facilities, that “Such opportunities may be evaluated and/or utilized on a case-by-case basis assuming facility acceptance criteria can be met and the facility is currently permitted within its regulatory jurisdiction for the reuse and/or recycling service provided.” Such decisions cannot be finalized at this time until soil pile characterization data are obtained, reviewed by the remediation contractor, and submitted for review to potential off-site reuse, recycling and/or disposal facilities for consideration. Clearly, the RAM plan conveys that properly permitted off-site facilities will be utilized. TRC and the City will select the specific facility following soil stockpile sampling, analysis, and review of the associated data. This is a typical procedure for remedial actions involving soil removal, and the RAM plan as prepared affords the necessary flexibility to conduct the work expeditiously and efficiently. Section 6.3.1 (Instrumented Air Monitoring for Dust) as noted by the commentator provides clear criteria, which is appropriate since it is the section that deals with environmental monitoring that will be conducted at the very start of work.

**6. Security should be discussed in greater detail particularly for open excavations that may be left overnight or over weekends as the proposed work locations are in areas readily accessible to the public.**

As indicated in Section 4.2.4 of the RAM Plan, security will be maintained to prevent access by unauthorized and non-essential personnel within the work area. The lateral and vertical limits of excavations have been pre-determined, which will allow for backfilling of the excavations with documented contaminant-free materials shortly after completion of each of the proposed excavations. It is anticipated that several of the targeted areas can be excavated and backfilled within a single work day (a significant advantage afforded by the above-discussed pre-defined excavation boundary approach). However, consistent with the precautions employed during the recent successful implementation of the MassDEP-approved RAM Plan related to the HF-31 sample location at the NBHS campus, excavations that may be left open overnight will be secured with temporary chain-link fencing and/or covered with plating to be protective of public safety. As noted in Section 4.2.1 of the RAM Plan, safety and security measures will be implemented prior to remedial activities. The temporary fencing and/or plating will remain in place until the excavation is backfilled. This clarification has been added to Section 4.2.1 of the final RAM Plan.

**7. Backfill should be tested for the MCP metals, not just the RCRA 8 metals. This is more consistent with the contaminants of concern identified in the Draft Phase II CSA.**

As described in Section 4.2.4 of the RAM Plan, any imported backfill and/or loam will be laboratory tested for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), volatile petroleum hydrocarbons/extractable petroleum hydrocarbons (VPH/EPH), polychlorinated biphenyls (PCBs), the Resource Conservation and Recovery Act (RCRA) eight metals, pesticides and herbicides. The analytical results of these analyses will be compared to the MCP Method 1 S-1 soil cleanup standards. Imported materials will be considered contaminant-free if any detections encountered are below the MCP Method 1 S-1 standards. The suite of analysis is consistent with MassDEP-approved response actions throughout the investigation of the site and provides an ample screen for the presence of impacted soil.

**8. The criteria of less than Method 1 S-1 standards for detectable contaminants in imported materials are not stringent enough.**

As described in Section 4.2.4 of the RAM Plan, imported materials will be considered contaminant-free if the source has documentation that specific analyses (noted in the response to Comment 7) were performed and any detections encountered were below the current MCP Method 1 S-1 standards. The comparison of the analytical results to the Method 1 S-1 standards is consistent with MassDEP-approved response actions throughout the investigation of the Site and is suitably stringent to determine the quality of imported source materials.

**9. Erosion controls should be specified by each area based upon the known presence of catch basins, other storm water controls, and areas of potential runoff.**

As described in Section 6.1.2 of the RAM Plan, erosion and sedimentation controls may be installed depending on field observations, and as required to protect the wetland north of the property. As the Site generally exhibits a flat topography, and there are no catch basins located in the vicinity of most excavations, the use of sedimentation and erosion control measures (e.g., silt fencing, hay bales, etc.) will not be needed in all areas. If required based on field observations, specific details pertaining to the design and installation of the sedimentation and erosion controls are provided in Appendix A, Figure C-103 of the RAM Plan. As noted in Section 4.2.1 of the RAM Plan, any sedimentation and erosion control measures will be implemented prior to remedial activities. Controls will be inspected daily to maintain compliance and to avoid siltation of surface water and drainage ways and will be removed following completion of the remediation activities.

In addition, as described in Section 6.1.3 of the RAM Plan, sedimentation and erosion controls will also be implemented in association with temporary off-site soil stockpiling activities. Specific details pertaining to the design and installation of the sedimentation and erosion controls are provided in Appendix A, Figure C-103 of the RAM Plan.

**10. Activities, such as dewatering, required to complete the excavations should be done and specified in the RAM Plan. Details of how groundwater would be managed if dewatering is required should also be included in the RAM Plan. It is inappropriate to perform a URAM to support the RAM.**

As noted in Sections 4.2.4 and 5.3 of the RAM Plan, excavation dewatering is not anticipated to be necessary as the proposed limit of the excavation for planned soil removal is above the groundwater table. However, a limited number of excavations for storm drainage improvements may require some groundwater management to accommodate additional runoff from the expansion of impervious surfaces on the northern end of the NBHS Campus, and will be managed as a Utility Related Abatement Measure (URAM). As described in Section 5.3 of the RAM Plan, where water is encountered within utility trenching and excavations, it will be discharged to the ground surface or subsurface and/or groundwater at a point within 100 feet of the point of withdrawal in a manner that will not exacerbate existing conditions, or prevent or impair the performance of remedial actions, at the disposal site.

There is no condition within the MCP that precludes the implementation of a URAM at a site during ongoing RAM-related activities. This approach has been implemented previously at the New Andrea McCoy Field during installation of a horizontal directionally-drilled force main storm sewer, and other underground drainage, domestic water and fire lines. Given that groundwater management is only anticipated to be required in association with storm drainage improvements (i.e., a buried

utility installation), the submittal of a URAM is an appropriate regulatory vehicle for the groundwater management activities.

**11. The compaction criteria and methods should be specified.**

As described in Section 4.2.5 of the RAM Plan, the imported backfill will be placed into the excavation and compacted in successive layers until the required elevations are achieved. The imported backfill will be brought up on essentially level lifts not exceeding twelve inches in uncompacted thickness and will be compacted by standard methods (e.g., WackerNeuson RT Trench Compactor). Each lift of material will be compacted so as to secure a dense, stable and thoroughly compacted mass. Filling operations will continue until the fill has been brought up to the finished grade, making proper allowances for six inches of topsoil, and re-seeding. A detailed illustration of the spot excavation backfilling sequence is provided in Appendix A, Figure C-103 of the RAM Plan. Specific details pertaining to the backfilling of those areas targeted for paving are also provided in Appendix A, Figure C-103 of the RAM Plan.

**12. The City of New Bedford property(s) where contaminated soil will be stockpiled temporarily should be specified – this is relevant to erosion control and public safety. The route(s) to stockpile area(s) should also be specified, avoiding residential streets.**

Excavated soils associated with the RAM will be temporarily stored at the City of New Bedford Transfer Station located at 1103 Shawmut Avenue, New Bedford. This was recently determined following Conservation Commission approval. The route of transportation from the NBHS Campus to the Transfer Station will be via Durfee Street to Shawmut Avenue. These details have been added to the final RAM Plan.

**13. If soil stabilization is required, the means and methods should be specified. Does the City know now whether stabilization will be required?**

Following receipt of the analytical testing results from soil stockpiles, it will be determined whether or not soil stabilization will be required. The means and methods of soil stabilization will be determined after receipt of analytical testing results. For example, during soil removal activities at the Walsh Field Athletic Complex, following the receipt of analytical data that indicated certain stockpiled soils required treatment for arsenic and lead, the stockpiled soil was treated using Free Flow Technologies FF-100 treatment material. The contractor used a loader to mix the material into the existing stockpiles.

**14. The RAM Plan should specify whether the trucks used to transport impacted soil from the Campus to the stockpile area will be decontaminated. Page 4-5 of the RAM Plan says this will be done “if necessary” without specifying what criteria make this a necessary activity, while page 3-1 of the Soil Management Plan says what methods “will likely” be used and that a decontamination pad “may” be constructed.**

As identified in the Soil Management Plan, Section 1.1 Decontamination of Vehicles Transporting Soils: “Soils will be removed from vehicles prior to their departure from the Site. A decontamination pad may be constructed by the Contractor prior to soil removal activities. The method of soil removal will likely be a combination of brushing the wheels to remove loose soils and/or passing vehicles through a decontamination station. Any liquids generated by vehicle decontamination will be drummed and transported off-site for disposal.”

Trucks will be traveling over landscaped areas, and the underlying “surficial” soils have been deemed to pose no significant risk. Many of the excavations will take place adjacent to paved areas; therefore the trucks will be staged on asphalt and accumulation of soils on the tires will not be an issue. Decontamination of trucks will be deemed “necessary” upon visual inspection prior to leaving the Site. If a visual inspection of the tires indicates the presence of soils, these soils will be removed prior to leaving the Site. Removal of soil from tires will either be brushed off the tires or sprayed off the tires. Should visual observations and field conditions indicate the removal of soil from tires warrants the construction of a decontamination pad (i.e., soils cannot be effectively removed without a pad), then a decontamination pad will be constructed.

- 15. The Soil Management Plan suggests that impacted soil may be recycled by asphalt batching. The Soil Management Plan should specify the asphalt batch facility as not all facilities are permitted to accept soil without petroleum impacts.**

Which asphalt batch facility will be used, if any, has not yet been determined. As identified in the Soil Management Plan, Section 1.3.6, “...a reuse, recycling and/or disposal facility approved by the Owner and LSP.” As noted above, the RAM plan notes that properly permitted off-site facilities will be utilized. TRC and the City will select the specific facility following soil stockpile sampling, analysis, and review of the associated data.

- 16. Roux Associates recommends that the Draft RAM Plan be searched for the words “may” and “if” to assess whether additional details/specifications, beyond those referenced previously, are required.**

A discussion of the use of the word “may” can be found in the response to Comment 5. Regarding the use of the word “if”, it is used correctly to describe or indicate conditional elements or decision pathways of the plan. For example, on page 6-3 the RAM plan indicates the course of action that will be taken “*If sustained ambient dust levels exceed the EPA National Ambient Air Quality Standard (NAAQS) of 150 µg/m<sup>3</sup>, or possible more stringent action levels in the HASP, at downwind sampling locations (a sustained reading would consist of a reading lasting 15 minutes or longer), dust suppression activities will be increased with a greater usage of water sprays.*” This and other uses of the word “if” are completely appropriate in the context of their use in the RAM Plan.

- 17. Draft RAM Plan p. 4-1 – A condition of No Significant Risk may not be achieved following the implementation of the Draft RAM Plan.**

The soil removal and pavement installations proposed in the RAM are integral to the achievement of a condition of No Significant Risk (NSR). If the RAM Plan is implemented as proposed, risk will be reduced, and based on the data used to develop the remedial plan, NSR will be achieved for NBHS campus soil in the top 3 feet in landscaped areas. An Activity and Use Limitation (AUL) will be implemented to address soil/fill below three feet, below paved surfaces and below the floor of any permanent structures.

- 18. Comment: I am concerned that the expanded parking lot proposed for the northern portion of the campus (4 acres) will be too large.**

The proposed expanded parking lot area will be approximately 175,000 square feet (approximately 4 acres, as noted during the March 2, 2011 PIP meeting). The proposed parking lot will include approximately 13,834 square feet of basketball courts. The current parking lot area in the north of

the NBHS campus is 81,512 square feet, approximately half of the proposed future paved area. The expanded parking lot will include engineering controls to reduce runoff.

**19. Why don't nearby residents have input on when NBHS excavation work is scheduled? I would prefer that work not be conducted during school vacations, on weekends, or on holidays when my family is home.**

The safety of people using the school's campus and neighboring residents is a top priority for the City. The City has in the recent past received strong input from the surrounding community regarding the performance of remedial actions while students are present. In consideration of this input and to minimize potential safety hazards presented by heavy equipment and trucks, the City intends to conduct this work during a time when school is not in session. The City is coordinating with NBHS administrators in establishing a schedule. Other than nuisance noise and minor traffic delays, nearby residents are not expected to be directly impacted by excavation work occurring at the high school. The City will monitor dust levels during all excavation work and will use dust suppression as necessary to be protective of people's health.

**20. What is the total square footage of the NBHS campus? What is the total square footage of the areas that will be capped (paved) or that will have a building on top of them?**

The total square footage of the NBHS campus, bounded by Liberty and Parker Streets, Hathaway Boulevard, and the Hetland Rink Property, is 1,543,090 square feet (35 acres). The NBHS building footprint occupies 232,110 square feet of the total area.

The total square footage of areas to be paved is approximately 243,700 square feet to add to the 742,525 square feet of existing exterior impervious surfaces (i.e., areas that are paved or that have a building on top of them). This additional paving will result in a total area of approximately 986,225 square feet that are paved or covered by the building.

**21. How much will it cost to build the expanded parking lot at the northern portion of the high school campus?**

The cost to build the northern parking lot area has not been determined as the design of the northern parking lot and associated drainage infrastructure has not been finalized. The City will provide an update once the design has been finalized.