

# SITEC

## ENVIRONMENTAL

Civil and Environmental Engineering, Land Use  
Planning, Hazardous and Solid Waste Consulting

SITEC Environmental, Inc.  
769 Plain Street, Unit C  
Marshfield, Massachusetts 02050  
Tel: (781) 319-0100  
Fax: (781) 834-4783

Commonwealth of Massachusetts  
Department of Environmental Protection  
20 Riverside Drive  
Lakeville, MA 02347

March 24, 2015

Attn: Mr. Mark Dakers, Chief  
Re: BFI Fall River Landfill  
Uncapped Buried Waste

Dear Mr. Dakers:

On behalf of our client, Browning-Ferris Industries, Inc. (MA), we are providing the following responses to the comments of Joseph F. Carvalho, Special Projects Director, Green Futures, concerning the proposal to remediate uncapped buried waste at and adjacent to the Fall River Landfill.

***1.) Since all 40 mil geomembrane liners tend to fail after 30 years, why not require liners that are 60 or 80 mil thick, especially in light of the fact that several phases of the dump are 'unlined'?***

Geomembrane lifetime predictions under unexposed final cover applications can range from approximately 165 to 450 years, depending on ambient temperatures, according to studies done by the Geosynthetic Institute (GSI). These studies were performed to evaluate the performance and life expectancy of the High Density Polyethylene (HDPE) geomembrane material used in the final cap without consideration of the material thickness.

The location of the uncapped buried waste is directly adjacent to the Phase I landfill. The Phase I Landfill was operated by the City of Fall River through 1983, at which time it was sold to Fall River Landfill, Inc. The Phase I Landfill is the only unlined portion of the BFI Fall River Landfill. The uncapped buried waste is proposed to be capped using a 40 mil HDPE geomembrane. The use of a 40 mil HDPE geomembrane as part of the final cap is consistent with all final closures completed at this landfill site as well as most other landfills throughout the state. The use of a 40 mil HDPE is appropriate for the final closure of this uncapped area.

***2.) Who will own the problem if, in some 30 years, the liners fail? Will the city, BFI/Republic Services, or our grandchildren be held responsible for any further contamination and cleanup?***

BFI/Republic Services is the owner of the BFI Fall River Landfill and will be responsible for the maintenance of the final cover system following closure. This final cover system maintenance will also include that portion of the area to be capped under this project that is situated beyond BFI's property on land that will eventually be owned by the City of Fall River. BFI maintains a Financial

Assurance Mechanism (FAM), as required by MassDEP, which established the funding mechanism to ensure that this maintenance activity is performed. Inspections and environmental monitoring will also be conducted during the post-closure period so that site and environmental conditions can be routinely evaluated as further assurance that the final cover system is functioning effectively.

- 3.) *The ‘proposal’ states that “Equipment limitations prevented the identification of the maximum vertical extent of the waste in 6 of the 10 test pits. The maximum reach of the excavator was approximately 20 feet below ground surface.” It goes on to say, “Depth to groundwater in the excavated areas ranged from approximately 4 to 8 feet below ground surface.” Was that water contaminated, and if so, what constituted the contamination? Will it join or has it already merged with the contaminated plume under Phase I that is heading northwest toward Freetown? If ‘no’, why won’t it?*

Groundwater samples were not collected during the subsurface investigations, test pit excavations and soil borings. No part of this proposed capping project will alter current groundwater flow conditions nor will the materials to be used for grading and shaping have a negative effect on groundwater quality within this area. The intent of this project is to complete the final closure of an uncapped landfill area and is considered to be a remedial action for the purpose of improving environmental conditions. Groundwater quality downgradient of the landfill will continue to be sampled and analyzed as part of the ongoing monitoring program.

- 4.) *Where will rain run-off from this newly created mini-me Mount Trashmore go? To Mother’s Brook? The Taunton River? It has to ‘belong’ to some watershed!*

Stormwater runoff patterns will not be altered as part of this final closure project. Stormwater runoff from the uncapped buried waste area currently flows in a northwesterly direction and into the existing Landfill’s stormwater management system. This system was designed to incorporate Best Management Practices for the collection and treatment of stormwater runoff. The existing stormwater detention basin discharges treated stormwater runoff to a wetland area the forms the headwaters of Mother’s Brook and flows in a northerly direction and eventually drains to the Taunton River.

The current drainage pattern will remain unchanged in that runoff from this area will continue to flow through the existing Landfill stormwater management system which is located within the Taunton River watershed.

- 5.) *What about leachate? Will it be collected? Where will it go?*

This project will not generate leachate. In fact, it will serve to reduce the quantity of leachate that is currently being generated with the installation of the final cover system that includes the 40 mil HDPE geomembrane cap.

- 6.) *According to the 'proposal' the identified site was initially disturbed between 1961 and 1971. Who owned the property during that period, since the city dump during that period was located on Tucker Street in the city's South End.*

The City of Fall River operated the Fall River Landfill from the 1966 through 1983. The Landfill was sold to Fall River Landfill, Inc. in 1983 and to Browning-Ferris Industries, Inc. in 1986.

- 7.) *Why not use all clean soil to cap this area? Is the DEP just looking for a dump that haulers can use to dump 'street sweepings, DEP defined contaminated soil, cleanings from storm sewers and drains, and dredge spoils'? This seems likely in view of the fact that for years, the DEP allowed some 14 to 17 other communities have their municipal solid waste 'DUMPED' in Fall River!*

MassDEP has developed Guidelines for the final closure of landfill sites, such as this, and has determined that certain materials are suitable for the grading and shaping of the landfill surface as needed for final cap construction. These materials include clean soils, street sweepings, mildly contaminated soils in accordance with the parameters established under MassDEP's Policy #COMM 97-001, dewatered catch basin cleanings and dewatered dredge spoils. These material types have been determined safe for this intended use with respect to the protection of human health and the environment. The intent of the MassDEP Guidelines is to allow that only as much grading and shaping material be accepted as is required to fund the closure and assessment. The acceptance of the MassDEP approved grading and shaping materials identified above will generate sufficient revenue to complete the project. The utilization of clean soils for this purpose would require additional capital expenditure and would not provide the required funding source for the project. Therefore, the project would not go forward and the closure would not be completed.

- 8.) *Who will be responsible for monitoring the fill, knowing that BFI/Republic Services routinely violated the terms of its contracts with both the city of Fall River and the MA DEP, preferring to pay a nominal fine rather than comply with existing laws and regulations?*

BFI has owned this facility since 1986 and has conducted disposal operations in substantial compliance with state and federal regulations and with the contractual obligations of the agreement with the City of Fall River. Regulatory issues that may have arisen over the past 28 years were resolved expeditiously and to the full satisfaction of the MassDEP and the City. There is no pattern of noncompliance or routine violation of existing laws and regulations.

We hope that these responses adequately address the comments and concerns of Green Futures. Should you have any questions or require additional information please do not hesitate to contact Chris October, PE, Area Environmental Manager or me.

Sincerely,  
SITEC Environmental, Inc.



Michael Quatromoni  
Project Manager

cc:

C. October, PE, BFI/Republic Services, Inc.