



EA Engineering, Science, and Technology, Inc., PBC

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August 4, 2017

Ms. Laura Allen Town
Administrator Town of
Berlin
10 Williams Street
Berlin, MD 21811

RE: Executive Summary
Remedial Investigation and Cost Estimate Former
Tyson Foods Facility
9943 Old Ocean City Boulevard Berlin,
Maryland

Dear Ms. Allen:

EA Engineering, Science, and Technology, Inc., PBC (EA) was contracted by the Town of Berlin to develop viable conceptual remediation approaches and conceptual level cost estimates to remove sediments that have accumulated within the waste lagoons of the former Tyson Foods Facility located at 9943 Old Ocean Town Boulevard (Site) located in Berlin, Maryland 21811.

The scope of work for this remedial investigation (RI) was developed based on a review of available historic documents and environmental reports for the Site, as well as review of site investigations performed by EA in previous phases of the project. To further support the remedial cost assessment, EA performed an additional site investigation in March 2017. While previous environmental assessment sampling and analysis efforts did not identify significant environmental exposure concerns associated with the existing sediments within the lagoons, EA understands the historical uses of the lagoons present challenges to their potential reuse. The Town of Berlin may want to consider addressing the sediments within the lagoons before repurposing the lagoons for public recreation.

EA's investigation determined the depth of water and sediment of the 3 lagoons. Results are shown below:

North lagoon – water depth ranges from 1.5ft-2.5ft and sediment thickness ranges from 0.5ft-4ft – total sediment volume estimated at approximately 14,383 cubic yards

Middle lagoon – water depth ranges from 1ft-1.7ft and sediment thickness ranges from 3.5ft- 5.5ft – total sediment volume estimated at approximately 66,173 cubic yards

South lagoon – water depth ranges from 8.1ft-10.1ft and sediment thickness ranges from 0-2ft – total volume was not calculated due to lack of sediment

Two remediation alternatives to address sediment in the former wastewater lagoons were developed. In general, the process of removing sediments from any water body requires three primary tasks that are evaluated by the following categories: (1) removal of sediment, (2) dewatering of sediment, and (3) disposal of sediment.



Alternative 1) Removal with On-site Management --- \$6,821,000

Alternative 1 integrates hydraulic dredging of the north and middle wastewater lagoons sediment, and placement inside an array of adjacent geotubes in the south wastewater lagoon.

Alternative 2) Removal with On-site Management and Off-site Disposal --- \$6,780,000

Alternative 2 integrates hydraulic dredging of the north and middle wastewater lagoons sediment, and placement inside an array of adjacent geotubes. In contrast to Alternative 1, the south wastewater lagoon would not be used for containing dewatered, dredged sediment. The large lot adjacent to the lagoons would be used to construct a lined dewatering area, and geotubes would be staged in this area for dewatering. Once dewatering has occurred to a sufficient degree, the geotubes would be opened and sediment inside excavated, loaded into trucks, and transported off-site to the nearest regional landfill for use as a daily cover material.

It should be noted that the current site uses related to the lagoons (including no water contact, passive use) can continue and would not require remedial action of the existing sediments. However, the Town of Berlin is considering renovating the site for recreational purposes and has requested consideration of the following options not presented in the report:

Option 1) Removal of sediments from the middle lagoon and On-site Management:

Option 1 involves hydraulic dredging of the middle wastewater lagoons sediment, and placement inside an array of adjacent geotubes in the south wastewater lagoon.

Estimated cost --- \$5,000,000

Option 2) Filling of south lagoon with off-site soil fill source

Option 2 involves site preparation, purchasing and placement of off-site soil sufficient to fill in the south lagoon.

Estimated cost --- \$2,500,000

EA greatly appreciates the opportunity to serve you on this project. If I can be of any further assistance, please do not hesitate to contact me at 410-329-5125.

Sincerely,

A handwritten signature in black ink that reads "James M. Hulbert".

James Hulbert
Project Manager