



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Northeast Regional Office • 205B Lowell Street, Wilmington MA 01887 • 978-694-3200

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Matthew A. Beaton
Secretary

Martin Suuberg
Commissioner

This is an electronic facsimile of a document on file with the Massachusetts Department of Environmental Protection.

April 9, 2018

Peter Kendrigan
Wheelabrator Saugus, Inc.
100 Salem Turnpike
Saugus, MA 01906

RE: SAUGUS—Solid Waste Management
Wheelabrator Saugus, Inc. Ash Landfill
100 Salem Turnpike
FMF#: 39704

BWP SW11 / Landfills – Major Modification
Transmittal Number: X271439

**Revised Final Engineering Plan - Conditional Approval
FINAL DECISION**

Dear Mr. Kendrigan:

The Massachusetts Department of Environmental Protection, Northeast Regional Office, Bureau of Air and Waste, Solid Waste Management Section (“MassDEP”) has reviewed your application, category BWP SW11 *Landfills-Major Modification*, Transmittal Number: X271439 (the “Application”), for the modification of the Final Engineering Plan for the Wheelabrator Saugus Ash Monofill Landfill (the “Landfill”) located at 100 Salem Turnpike in Saugus, Massachusetts (the “Landfill”). Brown and Caldwell of Taunton, Massachusetts (“B&C”) prepared and submitted the Application on behalf of Wheelabrator Saugus, Inc. (“Wheelabrator” or the “Applicant”). The Application includes an Engineering Design Report titled:

2017 Revisions to the Final Engineering Plan
Saugus Ash Monofill
Prepared for Wheelabrator Saugus
100 Salem Turnpike
Saugus, MA
April 2017
Prepared by Brown and Caldwell

This information is available in alternate format. Contact Michelle Waters-Ekanem, Director of Diversity/Civil Rights at 617-292-5751.
TTY# MassRelay Service 1-800-439-2370
MassDEP Website: www.mass.gov/dep

Printed on Recycled Paper

The Application consists of the following components: Project Summary and Engineering Design Drawings, Operations and Maintenance Plan, Closure and Post-Closure Plan and the Environmental Monitoring Plan. Wheelabrator submitted supplemental information related to the Application dated July 6, 2017 and October 17, 2017.

DISCUSSION

As discussed in the Application, Wheelabrator proposes to reduce the final gradient of the Landfill within Phases I and II from five percent (5%) to two percent (2%). As designed, Phases I and II are to be graded as a series of low ridges and valleys. To achieve the reduced gradient, the elevation of the bottom of each valley (Valleys 1 and 2) will be raised while maintaining the previously approved elevation of the ridges. The peak elevation of the completed Landfill will remain at fifty feet above mean sea level (50 feet MSL) as previously approved by MassDEP.

Wheelabrator is also proposing the use of a geocomposite gas venting layer in lieu of a 6-inch thick gas venting sand layer in the final landfill cap for the Landfill.

In total, the proposed grading change and use of a geocomposite gas venting layer in Phase I and II will provide an additional estimated 400,000 cubic yards of disposal capacity.

The reduction in the final gradient of Valleys 3, 4 and 5 located in Phases III, IV and V were previously approved by MassDEP in an approval letter dated December 2, 2008.

The Environmental Monitoring Plan was revised by adding: 1) Attachment A: the stormwater monitoring requirements for the Landfill, and 2) Attachment B: the Industrial Wastewater Discharge permit for the Landfill's leachate.

The existing leaf and yard waste composting operation will continue to operate at the Landfill. When ash disposal activities in Phases IV and V of the Landfill are nearing completion, Wheelabrator expects to relocate the composting operation within the uncapped areas of the Landfill.

The supplemental information provided by Wheelabrator, dated July 6, 2017, includes an anticipated sequence of operation and closure of the Landfill. The sequence of Landfill operation discusses ash placement, relocation of the Ash Staging Area, relocation of the Leaf and Yard Waste Compost Operation, and timing of landfill cap construction for each phase of the Landfill.

The supplemental information provided by Wheelabrator, dated October 17, 2017, provided a status of the barrier wall performance at the Landfill.

An Environmental Notification Form for the proposed project was submitted for Massachusetts Environmental Policy Act ("MEPA") review with the Secretary of Energy and Environmental Affairs. On August 5, 2016, the Secretary issued a certificate that determined the project adequately and properly complied with MEPA and its implementing regulations and no further MEPA review was required.

Additional details on the Application and proposed project can be found in the Fact Sheet attached hereto as Attachment 1.

PROVISIONAL DECISION & COMMENT PERIOD

On November 1, 2017, MassDEP issued a decision pursuant to 310 CMR 19.033(4)(a) as a Provisional Decision for the purpose of obtaining comment from the Applicant, other interested parties and the public on the proposed decision. The Provisional Decision provided that comments on the Provisional Decision could be submitted to MassDEP either by mail or email and had originally specified that comments must be received by MassDEP on or before December 1, 2017. In a letter dated November 27, 2017 MassDEP extended the public comment period to 5:00 p.m. on January 12, 2018. As publicly noticed, MassDEP also held a Public Hearing, for the purpose of taking public comments orally and in writing, on November 30, 2017 in the Saugus High School Auditorium in Saugus, MA.

The comment period closed on January 12, 2018 at 5:00 pm. MassDEP received a total of approximately 1,821 written comments, including comments from citizens, officials from the Towns of Saugus and Revere, State Representative Vincent, the Saugus River Watershed Council and the Conservation Law Foundation (collectively, the Public Comments). MassDEP also received a letter dated January 12, 2018 from WSI providing responses to topics raised at the Public Hearing. A hard copy of the Public Comments received by MassDEP is available for review at the MassDEP Northeast Regional Office. MassDEP's Response to Comments is attached hereto as Attachment 2.

After review of all comments received, MassDEP is issuing this Final Decision on the Application and has made the following change to the Provisional Decision:

1. The Final Decision requires WSI to submit, within thirty (30) days of the effective date of the Final Decision, an update to its Operation and Maintenance Plan to include provisions for backup power for the existing leachate collection and treatment system.

The Draft Application Review Fact Sheet has also been updated to reflect the Public Comment process.

On April 9, 2018, MassDEP issued the Eleventh Amendment to the Consent Order to facilitate the proposed changes to the final slope in the FEP and to require WSI to fund up to \$2,500,000 for engineering services to implement a Phase IV Remedy Implementation Plan for the former Dewey Daggett Landfill site located immediately south of the WSI property, or other work related to the preservation, restoration or conservation of the Rumney Marshes Area of Environmental Concern.

FINAL DECISION

MassDEP has determined that the Application, as conditioned by this Final Decision and permit, complies with the requirements of 310 CMR 19.000, including but not limited to, the requirements of 310 CMR 19.113, subject to the Applicant's compliance with the conditions imposed by MassDEP pursuant to 310 CMR 19.043.

This decision is issued pursuant to 310 CMR 19.033 and is an approval for the modifications of the final grading of Phases I and II and the final cap at the Wheelabrator Saugus Ash Monofill Landfill. This decision is issued pursuant to M.G.L. Chapter 111, § 150A and 310 CMR 19.000, subject to the conditions set forth below. In the event this approval conflicts with all or parts of other prior plan approvals issued pursuant to Chapter 111, § 150A, the terms and conditions of this approval shall supersede the conflicting provisions of the prior plan approvals. This approval does not convey property rights of any sort or any exclusive privilege. This decision does not relieve Wheelabrator, or any other person, of the responsibility to comply with all other applicable federal, state and local statutes, regulations and requirements.

CONDITIONS

1. This decision is effective upon the date stamped on page one of this permit.
2. Wheelabrator shall comply with this permit and the requirements of 310 CMR 19.000, including, but not limited to, the requirements established at 310 CMR 19.043(5), *Standard Conditions*.
3. **Required Submittals:**
 - a. Notification of Construction: Not less than seven (7) days prior to commencing construction¹ pursuant to the Application and this decision, Wheelabrator shall notify MassDEP and the Town of Saugus Board of Health (the “BOH”) in writing of the scheduled date of the commencement of construction at the site. In addition, Wheelabrator shall provide to MassDEP and the BOH the following:
 - i. The projected schedule for completion of the major construction milestones;
 - ii. The name and contact information of an on-site contact for the construction;
 - iii. Health and safety plan, for MassDEP’s files, that includes, but is not limited to:
 - protocols for monitoring for landfill gas (methane, hydrogen sulfide, etc.), as needed;
 - protocols for modifying work practices if landfill gas is detected at levels of concern (action levels);
 - instruction and training of all personnel working on the site regarding the potential health and safety hazards at the Landfill including, but not limited to, those associated with landfill gas;
 - instruction and training of all personnel in compliance with the conditions of this permit and how to perform authorized activities in a manner that is not hazardous to public health, safety, and the environment.
 - iv. The National Pollutant Discharge Elimination System (NPDES) Notice of Intent and Stormwater Pollution Prevention Plan (SWPPP) for the project.
 - b. Construction Certification Report: On or before ninety (90) days after the date of completion of each phase of Landfill closure construction, Wheelabrator shall submit for review and approval by MassDEP a construction certification report, as an application category BWP SW43 *Landfill Closure Completion*, as set forth below. The certification report shall include, but is not limited to:
 - i. As-built plans for the final as-constructed improvements, prepared by a Massachusetts Registered Professional Engineer, amended to incorporate all modifications and alterations, if any, made during construction;
 - ii. A report, prepared by the Massachusetts Registered Professional Engineer of Record, providing all applicable quality control/ quality assurance data and certifying that the closure was completed in conformance with the approved plans and 310 CMR 19.000; and
 - iii. Certifications by Wheelabrator and the Engineer of Record pursuant to 310 CMR 19.011.

¹ This includes but is not limited to removal of previously capped areas in Phase I and II and Landfill cap construction.

- c. Leachate System Back-Up/Emergency Power Plan – Within thirty (30) days of the effective date of this permit, Wheelabrator shall submit for MassDEP review and approval an updated Operation and Maintenance Plan, as an application category BWP SW 45 *Alternative Review Process*, that includes, but is not limited to:
 - i. Identification of components of the leachate system (i.e. pump stations, pre-treatment system, controls, etc.) that require an additional source of back-up/emergency power;
 - ii. Determination of the power needs and sizing of the back-up/emergency power source at each component of the system;
 - iii. Determination of how soon the back-up power/emergency power source must be activated after the loss of the primary power source;
 - iv. Determination of the type of back-up/emergency power unit to be used at each component of the system and whether the back-up power units will be located on site or will be rented on an as needed basis; and
 - v. A schedule for the implementation of the proposed back-up/emergency power plan.
 - d. In the event Wheelabrator seeks to relocate the existing Leaf and Yard waste operation to capped areas of the Landfill (i.e., areas of the Landfill that have received final cover), Wheelabrator shall, without limitation, submit to MassDEP an application for modification as specified by MassDEP.
4. All terms and conditions of the Landfill’s approved plans, including, but not limited to, the Facility Engineering Plan (the “FEP”), shall remain in full force and effect except as may be modified by this decision.
 5. Wheelabrator shall instruct all contractors and employees in the requirements of this decision, as applicable to their work. Wheelabrator shall maintain and make available at the Landfill a copy of this decision and all approved plans, appendices, protocols and attachments for use by Wheelabrator’s contractors and employees. Wheelabrator shall maintain records at the site that all contractors and employees have been instructed pursuant to this condition. Wheelabrator shall ensure that all work performed at the Landfill complies with 310 CMR 19.000 and the applicable requirements of this permit.
 6. Wheelabrator shall implement all measures necessary to prevent, minimize and mitigate the generation and emission of dust wherever and whenever necessary at the Landfill and any other areas related to or under control of Wheelabrator to prevent fugitive dust emissions and/or the occurrence of nuisance conditions. Water shall not be used for dust control in amounts that produce excessive infiltration, ponding, runoff or erosion.
 7. Wheelabrator shall perform routine monitoring of the Landfill in accordance with the requirements of this Section and the approved plans to ensure compliance with this decision and the approved plans. The routine monitoring shall include, without limitation:
 - a. Daily inspection and assessment of the status and condition of the Landfill² and construction activities. This shall include, but not be limited to, the monitoring of the site

² This includes but is not limited to structures, equipment, devices, storm water management controls, environmental control systems, paved surfaces, fencing, gates, wheel wash station and other areas.

for the occurrence of nuisance odors, dust, and noise, and storm water run-off from the site and any necessary corrective actions.

- b. Maintenance at the site of a Daily Construction Activity Log that includes, but is not limited to:
 - i. A daily summary that describes, without limitation, the principle activities at the Landfill that day such as, site grading, excavation, storm water system maintenance, and notable construction milestones;
 - ii. A description of any deviations from the approved plans and this approval.
 - iii. A description of corrective actions, maintenance, or repairs taken, or to be taken, to mitigate or correct problems or potential/actual nuisance conditions.
 - iv. Documentation of all reporting/notifications made to MassDEP, the Board of Health and other authorities/agencies/emergency responders/facilities, as necessary, in accordance with the Notification Requirements of Condition 10 of this decision.
 - v. Documentation of any complaints received by Wheelabrator relative to the activities at the Landfill that includes, but is not limited to the name/identity of Wheelabrator), the date and time of the complaint, the nature of the complaint, and the response to the complaint including any actions taken by Wheelabrator.

8. Wheelabrator shall engage the services of an independent Massachusetts registered professional engineer in good standing, qualified and experienced in the design and construction of solid waste management facilities (the “Engineer of Record”) to oversee all construction activities at the Landfill pursuant to this decision. The Engineer of Record or his/her qualified direct employee³ (the “Inspector”) shall conduct routine inspections of the Landfill, construction activities and project status as set forth below. These inspections are not in lieu of any other inspections, oversight or reporting required or necessary to oversee construction activities at the Landfill.
 - a. The Inspector shall have adequate training, knowledge and understanding of all applicable regulations, and the requirements of this decision.
 - b. The Inspector shall during each inspection thoroughly evaluate the project status and identify actual or potential deviations from the applicable regulations and the requirements of this decision, including, without limitation, all applicable plans and approvals. These inspections are in addition to those required to direct, monitor, and document the construction activities at the Landfill to prepare the construction certification(s).
 - c. During times when activities are taking place to remove the cap in previously capped areas of the Landfill, the Inspector shall prepare written semi-monthly (“bi-weekly”) construction monitoring reports of each inspection, as set forth in this Condition (the “Construction Monitoring Reports”). The bi-weekly inspections required by this Condition shall apply to all work related to the uncapping and preparation of the valley area(s) for the placement of waste, including without limitation, site preparation, removal of vegetative layer and other cover materials. During times when no activities are taking place to remove existing cap or prepare the valley areas for placement of waste, the Landfill shall be inspected in accordance with the requirements set forth below in Condition 9.

³ For purposes of this decision “qualified direct employee” means an individual, qualified and knowledgeable in the construction of solid waste facilities, employed by and directly responsible to the Engineer of Record and not the Permittee.

- d. Not later than the 15th day of the following month the Engineer of Record shall submit printed and electronic copies of the Construction Monitoring Report to MassDEP. Copies shall be provided to the Board of Health in such manner as may be prescribed by the Board of Health. A copy of each Construction Monitoring Report shall also be made available at the Facility for review by authorized representatives of MassDEP and the Town, upon request. Each Construction Monitoring Report shall be signed, dated, and certified in accordance with 310 CMR 19.011(1) by the Inspector and the Engineer of Record and shall, without limitation:
 - i. Document the conditions and construction activities at the time of the inspection and the project progress since the previous inspection;⁴
 - ii. Identify any actual or potential deviations from the applicable regulations, the requirements of this permit, and all applicable plans and approvals; and
 - iii. In the event a condition of actual or potential deviation is identified, the Construction Monitoring Report shall:
 - describe the deviation/issue;
 - identify the action(s) Wheelabrator took or intends to take to correct the deviation/issue and a schedule for taking the action(s); and
 - include photographs documenting the condition of the Landfill and construction progress.
 - e. Wheelabrator shall, within fourteen (14) days of the date of receiving written comments from MassDEP⁵ on a Construction Monitoring Report, provide a written response to MassDEP that includes any information that MassDEP reasonably requires. This provision does not limit MassDEP's right to request information pursuant to 310 CMR 19.000, 310 CMR 40.0000, the Massachusetts Contingency Plan (the "MCP"), and 310 CMR 30.000, the Massachusetts Hazardous Waste Regulations or any other applicable state, federal, or local law or regulation.
9. Except as set forth above in Condition 8, Wheelabrator shall ensure that the Landfill is inspected on a bi-monthly (every two months) frequency by a Third-Party Inspector registered with MassDEP in accordance with 310 CMR 19.018. Pursuant to 310 CMR 19.018(8)(c)1, Wheelabrator shall submit copies of each inspection report to MassDEP and the BOH within thirty (30) days of the date of the inspection.
10. Wheelabrator shall comply with the notifications described in this decision and 310 CMR 19.043(5) (i), *Duty to Inform*. These notifications are in addition to, and shall not substitute for, any other notification(s) which are required pursuant to 310 CMR 40.0000, the Massachusetts Contingency Plan (the "MCP"), and 310 CMR 30.000, the Massachusetts Hazardous Waste Regulations or any other applicable state, federal, or local law or regulation.
- a. Wheelabrator shall notify MassDEP and the BOH within twenty-four (24) hours whenever possible, but in no event later than forty-eight (48) hours of the Engineer of Record, Wheelabrator or contractor(s), becoming aware of:

⁴ As examples, depending on the project phase, the Construction Monitoring Report may document: site preparation activities, installation and maintenance of erosion and sediment controls, excavation, foundation/footing installations, drainage and utility installations, building construction work, and site stabilization, grading, and associated paving and landscaping activities, etc.

⁵ MassDEP may at its sole discretion upon request of the Permittee extend the fourteen (14) day time period for responding to MassDEP's comments.

- i. The occurrence of any conditions or events at the Landfill that result in off-site nuisance conditions or a threat to the public health, safety, welfare or the environment.
 - ii. The details of any incidents that resulted in the response of emergency personnel (fire, police, MassDEP Emergency Response personnel, the Occupational Health and Safety Administration, etc.) to the Landfill.
 - iii. The receipt by Wheelabrator of any complaint of off-site nuisance conditions attributed to the Landfill.
 - b. This written notification shall be made by FAX to MassDEP's Solid Waste Management Section, Northeast Regional Office at (978) 694-3499 or by email to Mark.Fairbrother@state.ma.us. If a FAX or email is not available, the notification may be made by telephone to (978) 694-3298. Such notification by telephone shall be followed up by a certified letter within seven (7) days.
 - c. This notice shall, at a minimum, include a description of the incident and/or complaint, the impact on the activities authorized by this approval, and a description of any corrective actions Wheelabrator has taken or intends to take to minimize the potential for a recurrence.
11. Where the design specifications provide a standard as "minimum" or "maximum" (or other of similar effect) the closure certification shall document that all material accepted and placed for that use either equals the standard, or the material exceeds or is below the standard, respectively. Where materials are received that do not meet one or more standards the closure completion certification report shall clearly document either that the material was rejected and not used, or was modified or otherwise processed, so as to meet the standard(s) as actually used. Where an area must be reworked, repaired or otherwise removed and replaced, confirmatory testing shall be completed and documented showing that the reworked, repaired and/or replaced materials meet specifications. The thickness of the soil/separation layers shall include documentation by direct tabulated measurement that the layer meets the specifications. Testing results and measurements shall not be averaged to determine compliance with the specifications.
 12. Wheelabrator is responsible to ensure that all necessary precautions are taken to protect the health and safety of workers and the general public during construction.
 13. All disturbance of the Landfill shall be limited to the proposed grading and installations as depicted and described in the Application and the approved plans and this decision. Any additional activities or modifications not described in the Application, Transmittal Number: X271439, may require notification of MassDEP, and the preparation and submittal of a separate application for permit modification. No changes, modifications or alterations shall be made to the approved plans, unless otherwise approved, in writing, by the Department in accordance with 310 CMR 19.000.
 14. Maintenance of slopes, berm(s), drainage swales, storm water systems, outlet structures, and appurtenances shall be performed to keep these structures in good working order. The area around the site entrance shall be maintained in a condition which shall prevent tracking of sediment onto the public right-of-way. All sediment spilled, dropped, washed or tracked onto the public right-of-way shall be removed without delay.
 15. Wheelabrator shall implement the measures necessary to control and manage storm water at the Property including, without limitation, implementation of a Storm Water Pollution Prevention

Plan for the Property that complies with applicable MassDEP regulations and guidelines. In addition, this approval does not relieve Wheelabrator or any other person of the responsibility to comply with the National Pollutant Discharge Elimination System (“NPDES”) requirements.

16. Wheelabrator shall apply and maintain intermediate cover in accordance with the FEP. Final landfill cover shall be placed and maintained in accordance with the Landfill’s Closure/Post-Closure Plan, as approved by MassDEP. All areas disturbed during construction shall be stabilized as soon as possible upon completion of construction work in each area.
17. Wheelabrator may stockpile on the Landfill topsoil removed from the existing Landfill final cover in Phases I and II for potential reuse in future final cover construction or operational cover at the Landfill. Prior to reuse in future Landfill final cover construction, Wheelabrator shall test any topsoil removed from the existing landfill cover for conformance with the technical specifications for Soil Suitable to Support Vegetation in the Closure and Post-Closure Plan. The test results shall be documented in the Construction Certification documentation for each phase of landfill closure.
18. The existing Landfill final cover geomembrane liner removed from Phases I and II shall be managed pursuant to applicable state, and federal regulations including, but not limited to the management of solid waste pursuant to 310 CMR 19.000. Waste liner material shall be recycled or used for energy recovery depending on available diversion opportunities..
19. Wheelabrator shall submit to MassDEP on an annual basis a status update regarding operation and closure activities, including, without limitation, any anticipated modification to the sequence of operation and capping schedule of the Landfill. The updated sequence of operation and closure shall be provided in the Landfill annual progress report.
20. The submittals to MassDEP required by this decision shall be submitted by Wheelabrator in accordance with the applicable fee provisions of 310 CMR 4.00 “*Timely Action Schedule and Fee Provisions*”. In the event that the MassDEP provides written comments to Wheelabrator on documents submitted pursuant to this paragraph, Wheelabrator shall provide a response and revised document to the MassDEP in accordance with the provisions of 310 CMR 4.00 that corrects any deficiencies reasonably identified by the MassDEP in the document(s)⁶ and; makes any changes that the MassDEP reasonably requires.
21. MassDEP reserves the right to rescind, suspend or modify this approval based upon a determination that the project causes the development of nuisance conditions, is not being operated safely or in accordance with this approval, or results in a threat to the public health, safety or the environment.

⁶ Such documents include but are not limited to Notice of Administrative or Technical Deficiency issued pursuant to 310 CMR 4.00.

NOTICE OF RIGHT TO APPEAL

Appeal. Any person aggrieved by the issuance of this decision, except as provided for under 310 CMR 19.033(4)(b), may file an appeal for judicial review of said decision in accordance with the provisions of M.G.L. c. 111, s. 150A, and M.G.L. c. 30A, sec. 14, not later than thirty (30) days following the receipt of the final decision. The standing of a person to file an appeal and the procedures for filing such appeal shall be governed by the provisions of M.G.L. c. 30A. Unless the person requesting an appeal requests and is granted a stay of the terms and conditions of the decision by a court of competent jurisdiction, the decision shall remain effective.

Notice of Action. Any aggrieved person intending to appeal this decision to the Superior Court shall first provide notice to the Department of their intention to commence such action. Said notice of intention shall include the Department file number and shall identify with particularity the issues and reasons why it is believed the decision was not proper. Such notice shall be provided to the Office of General Counsel of the Department and the Regional Director for the regional office which processed the application. The appropriate addresses to which to send such notices are:

General Counsel
Department of Environmental Protection
One Winter Street - 3rd Floor
Boston, MA 02108

and

Eric Worrall
Regional Director
Department of Environmental Protection
205B Lowell Street
Wilmington, MA 01887

No allegation shall be made in any judicial appeal of this decision unless the matter complained of was raised at the appropriate point in the administrative review procedures established in those regulations, provided that a matter may be raised upon a showing that it is material and that it was not reasonably possible with due diligence to have been raised during such procedures or that matter sought to be raised is of critical importance to the environmental impact of the permitted activity.

If you have any questions in regards to this matter, please contact Richard Spieler at telephone number 978-694-3317.

Sincerely,

This final document copy is being provided to you electronically by the
Department of Environmental Protection. A signed copy of this document
is on file at the DEP office listed on the letterhead.

Mark G. Fairbrother
Section Chief
Solid Waste Management

Richard J. Spieler
Environmental Engineer
Solid Waste Management

MGF/RJS/tjs

Attachment 1: Application Review Fact Sheet, Transmittal Number: X271439
Attachment 2: Response to Comments, Transmittal Number: X271439
Communication for Non-English Speaking Parties

cc: Susan Ruch, Deputy Regional Director, MassDEP-NERO, Bureau of Air and Waste
Email: susan.ruch@state.ma.us

Saugus Board of Health
Town Hall
298 Central Street
Saugus, MA 01906

Saugus Conservation Commission
Town Hall Annex
25 Main Street
Saugus, MA 01906

Scott Crabtree, Town Manager
Town Hall
298 Central Street
Saugus, MA 01906

Saugus Board of Selectmen
Town Hall
298 Central St.
Saugus, MA 01906

Revere Board of Health
City Hall
281 Broadway
Revere, MA 02151

Lynn Board of Health
3 City Hall Square
Lynn, MA 01901

James Connolly
Wheelabrator Technologies, Inc.
Email: jconnoll@wtienergy.com

Alan R. Kirschner, P.E.
Brown and Caldwell
Email: AKirschner@brwncald.com

ATTACHMENT 1

**Application Review Fact Sheet
Transmittal Number: X271439**

April 9, 2018

Facility Identification

Facility: Wheelabrator Saugus, Inc./Ash Monofill Landfill
100 Salem Turnpike
Saugus, MA 01906

Facility Number: 39704
Regulated Object Number: 172913
SWM ID Number: AL0262.995
Permit Number: NESW-LF-055

Location¹: 70° 59' 0" W Longitude 42° 29' 19" N Latitude

Current Application

Type: BWP SW11/ Landfill Major Modification
Ash Staging and Transport
Transmittal Number: X271439

Applicant: Wheelabrator Saugus, Inc.
100 Salem Turnpike
Saugus, MA 01906

MEPA: An Environmental Notification Form for the proposed project was submitted for Massachusetts Environmental Policy Act (MEPA) review with the Secretary of Energy and Environmental Affairs. The Secretary's Certificate, issued on August 5, 2016, determined that the project adequately and properly complied with MEPA and its implementing regulations and no further MEPA review was required.

Submittals relative to this application:

Report and plans: Wheelabrator Saugus, Inc.
2017 Revision to the Final Engineering Plan
Major Permit Modification
Saugus Ash Monofill
April 2017
Prepared by Brown and Caldwell

¹ For reference only. Estimated from MassGIS.

Supplemental Information:

Wheelabrator Saugus, Inc.
2017 Revisions to the Final Engineering Plan
Supplemental Information
Saugus Ash Monofill
July 6, 2017
Prepared by Brown and Caldwell

Wheelabrator Saugus, Inc.
2017 Revisions to the Final Engineering Plan
Supplemental Information
Saugus Ash Monofill
Barrier Wall Performance
October 17, 2017
Prepared by Wheelabrator Saugus, Inc.

Discussion

As discussed in the Application, Wheelabrator proposes to reduce the final gradient of the Landfill within Phases I and II from five percent (5%) to two percent (2%). As designed, Phases I and II are to be graded as a series of low ridges and valleys. To achieve the reduced gradient, the elevation of the bottom of each valley (Valleys 1 and 2) will be raised while maintaining the previously approved elevation of the ridges. The peak elevation of the completed Landfill will remain at fifty feet above mean sea level (50 feet MSL) as previously approved by MassDEP.

Wheelabrator is also proposing the use of a geocomposite gas venting layer in lieu of a 6-inch thick gas venting sand layer in the final landfill cap for the Landfill.

In total, the proposed grading change and use of a geocomposite gas venting layer in Phase I and II will provide an additional estimated 400,000 cubic yards of disposal capacity.

The reduction in the final gradient of Valleys 3, 4 and 5 located in Phases III, IV and V were previously approved by MassDEP in an approval letter dated December 2, 2008.

The Environmental Monitoring Plan was revised by adding, 1) Attachment A: the stormwater monitoring requirements for the Landfill, and 2) Attachment B: the Industrial Wastewater Discharge permit for the Landfill's leachate.

The existing leaf and yard waste composting operation will continue to operate at the Landfill. When ash disposal activities in Phases IV and V of the Landfill are nearing completion, Wheelabrator expects to relocate the composting operation within the uncapped areas of the Landfill. Condition 3.d of the Final Decision requires submittal of an application for modification in the event that Wheelabrator seeks to relocate the existing leaf and yard waste operation to capped areas of the Landfill.

The supplemental information provided by Wheelabrator, dated July 6, 2017, includes an anticipated sequence of operation and closure of the Landfill. The sequence of Landfill operation discusses ash placement, relocation of the Ash Staging Area, relocation of the Leaf and Yard Waste Compost Operation, and timing of landfill cap construction for each phase of the Landfill.

The proposed sequence of activities is estimated and will be adjusted based on landfill filling rates. Per Condition 19 of the Final Decision, Wheelabrator will provide an update of the schedule in the annual report for the Ash Monofill. Wheelabrator's anticipated schedule and sequence of operation are provided below.

- Ash placement will continue in Phase IV through the winter of 2017-2018 to create a suitable plateau for the relocation of the leaf and yard waste composting operation. A staging area for any off-site ash transportation² will be constructed on the newly created plateau as well.
- In the spring of 2018, a new pad for the leaf and yard waste composting operation will be constructed in the southern area of the Phase IV plateau. The new pad is expected to begin receiving incoming leaf and yard wastes in mid-2018.
- Leaf and yard wastes received prior to that time will be received and composted at the existing pad. The materials composted at the existing pad will be relocated to the existing stockpile area in Phase III during the late-summer of 2018.
- During the late-summer of 2018, ash disposal activities will then commence in the area of the existing composting pad. No appreciable amount of ash has ever been placed in the area of the existing pad. As such, this area needs to be preloaded to minimize subsurface settlement that could occur after final cover construction.
- Following a period of preloading, construction of roughly 5 to 8 acres of final cover in Phase V is projected for the summer of 2019.
- During the second half of 2019, the existing final cover soils in the lower reaches of Phase II, Valley 2 will be removed and stockpiled for future use. If possible, some of these soils may be used in the final cover construction in Phase V.
 - In early 2020, the geomembrane later will be removed from the area and all contact and non-contact water control features will be constructed.
 - Ash placement in the lower reaches of Phase II, Valley 2 will commence at that time.
- In late 2020, the existing final cover soils in the upper reaches of Phase I, Valley 2 will be removed and stockpiled for future use.
 - In early 2021, the geomembrane layer will be removed from this area and all contact and non-contact water control features will be constructed.
 - Ash placement in the upper reaches of Phase II, Valley 2 will commence at that time.
 - Materials used for preloading in Phase III and IV may be used to fill in the areas of Phase II, Valley 2.

² In a separate application for modification of the Landfill (Transmittal Number: X274714), Wheelabrator proposed to establish an area within the active limits of the Landfill to stage ash from the Wheelabrator Saugus Energy-from-Waste ("EfW") Facility prior to shipment for further processing or disposal (the "Ash Staging Area Project").

- In late 2021, the existing final cover soils in the lower reaches of Phase II, Valley 1 will be removed and stockpiled for future use.
 - In early 2022, the geomembrane layer will be removed, all contact and non-contact water control features will be constructed.
 - Ash placement in the lower reaches of Phase II, Valley 1 will commence.
 - Materials used for preloading in Phases III and IV may be used to fill in the areas of Phase II, Valley 1.
- In late 2022, the existing final cover soils in the upper reaches of Phase I, Valley 1 will be removed and stockpiled for future use.
 - In early 2023, the geomembrane layer will be removed and all contact water containment features will be constructed.
 - Ash placement in the upper reaches of Phase I, Valley 1 will commence.
 - At this time (2023), the leaf and yard waste composting operation in Phase IV will be discontinued, unless the operation was discontinued earlier due to other factors.
 - Materials used for preloading in Phases III and IV may be used to fill in the areas of Phase II, Valley 1.
- 2024: Final cover installed in Phases I and II, Valley 1 (approx. 14 acres)
- 2025: Final cover installed in Phases I and II, Valley 2 (approx. 15 acres)
- Spring 2026 to Fall 2027: Final cover will be constructed in Phases II and IV (approx. 50 acres) in two stages of construction.

Condition 19 of the Final Decision requires the submittal of an annual status update regarding operation and closure activities, including, without limitation, any anticipated modification to the sequence of operation and capping schedule of the Landfill.

The supplemental information provided by Wheelabrator, dated October 17, 2017, provided a memorandum on the performance of the environmental protection systems at the Landfill, including the status of the barrier wall performance and leachate collection system.

On November 1, 2017, MassDEP issued a decision pursuant to 310 CMR 19.033(4)(a) as a Provisional Decision for the purpose of obtaining comment from the Applicant, other interested parties and the public on the proposed decision. The Provisional Decision provided that comments on the Provisional Decision could be submitted to MassDEP either by mail or email and had originally specified that comments must be received by MassDEP on or before December 1, 2017. In a letter dated November 27, 2017 MassDEP extended the public comment period to 5:00 p.m. on January 12, 2018. As publicly noticed, MassDEP also held a Public Hearing, for the purpose of taking public comments orally and in writing, on November 30, 2017 in the Saugus High School Auditorium in Saugus, MA.

The comment period closed on January 12, 2018 at 5:00 pm. MassDEP received a total of approximately 1,821 written comments, including comments from citizens, officials from the Towns of Saugus and Revere, State Representative Vincent, the Saugus River Watershed Council and the Conservation Law Foundation (collectively, the Public Comments). MassDEP also received a letter dated January 12, 2018 from WSI providing responses to topics raised at the Public Hearing. A hard copy of the Public Comments received by MassDEP is available

for review at the MassDEP Northeast Regional Office. MassDEP's Response to Comments is attached the Final Decision as Attachment 2.

After review of all comments received, MassDEP is issuing the Final Decision on the Application and has made the following change to the Provisional Decision:

1. The Final Decision requires WSI to submit, within thirty (30) days of the effective date of the Final Decision, an update to its Operation and Maintenance Plan to include provisions for backup power for the existing leachate collection and treatment system.

This Application Review Fact Sheet has also been updated to reflect the Public Comment process.

On April 9, 2018, MassDEP issued the Eleventh Amendment to the Consent Order to facilitate the proposed changes to the final slope in the FEP and to require WSI to fund up to \$2,500,000 for engineering services to implement a Phase IV Remedy Implementation Plan for the former Dewey Daggett Landfill site located immediately south of the WSI property, or other work related to the preservation, restoration or conservation of the Rumney Marshes Area of Environmental Concern.

ATTACHMENT 2

**Response to Comments
Transmittal Number: X271439**

April 9, 2018

This Response to Comments (RTC) document concerns comments received by the Massachusetts Department of Environmental Protection (MassDEP) about a proposal made by Wheelabrator Saugus, Inc. (WSI) relating to the placement of additional fill in two valleys at WSI's Ash Monofill (the Landfill), which is referred to as "the Partial Valley Fill Project."

The RTC is organized as follows:

- I. INTRODUCTION AND BACKGROUND
 - A. Public Participation and Procedural History
 - B. Change Made to Decision as Result of Public Comment
 - C. Background and History
 - D. Summary of MEPA History
 - E. Mitigation Required in Connection with Approval of the Partial Valley Fill Project
 - F. Current Application for the Partial Valley Fill Project
- II. MassDEP RESPONSE TO SIGNIFICANT COMMENTS ON THE PROVISIONAL DECISION
- III. MassDEP RESPONSE TO ADDITIONAL COMMENTS
- IV. CONCLUSION

I. INTRODUCTION AND BACKGROUND

A. Public Participation and Procedural History

On November 1, 2017, MassDEP issued a Provisional Decision for Public Comment for the Partial Valley Fill Project. The Provisional Decision arose out of MassDEP's review of WSI's application, category BWP SW11 *Landfills-Major Modification*, Transmittal Number X271439 (the Application) concerning the Landfill, which is located at 100 Salem Turnpike in Saugus, Massachusetts.

Although a public comment period was not required by law or regulation, MassDEP decided to issue a Provisional Decision on the Application to allow interested parties to review and comment on the Provisional Decision. The Provisional Decision stated that comments could be submitted to MassDEP either by mail or email and specified that comments must be received by MassDEP on or before 5:00 p.m. on December 1, 2017. MassDEP also committed to hold a public hearing in Saugus for the purpose of accepting oral as well as written comments on the Provisional Decision.

MassDEP received several requests to extend the public comment period and one commenter (State Representative RoseLee Vincent) requested an additional public hearing to be held in the City of Revere on the Provisional Decision. MassDEP issued a letter dated November 27, 2017, extending the public comment period to 5:00 p.m. on January 12, 2018. MassDEP determined

that a single public hearing is appropriate and consistent with past practices on other permit applications.

As publicly noticed, MassDEP held the Public Hearing for the purpose of taking public comments orally and in writing on Thursday, November 30, 2017, at 6:30 p.m. in the Saugus High School Auditorium on Pierce Memorial Drive, Saugus, Massachusetts. Approximately 112 people attended the Public Hearing and 53 individuals provided oral comments on the proposed project.

The comment period closed on January 12, 2018 at 5:00 pm. MassDEP received approximately 1,821 written comments, including comments from citizens, officials from the Towns of Saugus and Revere, State Representative Vincent, the Saugus River Watershed Council and the Conservation Law Foundation (collectively, the Public Comments). MassDEP also received a comment letter from WSI providing WSI's responses to topics raised at the Public Hearing. A hard copy of the Public Comments received by MassDEP is available for review at the MassDEP Northeast Regional Office.

When reviewing an application for a modification of a permit for a solid waste management facility, Massachusetts law requires MassDEP to base its decision on whether the application meets the standards, as applicable, established by the regulations.

MassDEP staff has read and considered each comment in its entirety. MassDEP has generally grouped related comments together for response below. No significance should attach to the format in which MassDEP chose to cite or summarize the original comment or the order in which responses in this RTC are presented.

B. Change Made to Decision as a Result of Public Comment

MassDEP is including a condition in its Final Decision that requires WSI to submit, within thirty (30) days of the effective date of the Final Decision, an update to its Operation and Maintenance Plan to include provisions for backup power for the leachate collection and treatment system.

C. Background and History

WSI, or its predecessor,¹ has operated a waste-to-energy (WTE) combustion facility adjacent to the Landfill in Saugus since October 22, 1975. The Landfill receives ash from the combustion of municipal solid waste generated at the adjacent WTE facility. The Landfill is an existing site-assigned and fully permitted facility. The Landfill is permitted to accept solid waste only and not regulated hazardous waste.

¹ WSI is the successor-in-interest to the Refuse Energy Systems Company (Resco).

Prior to 1975, the M. DeMatteo Construction Company (MDCC) operated a sanitary landfill at the site pursuant to a modified site assignment issued on July 18, 1963, by the Massachusetts Department of Public Health pursuant to M.G.L. c. 111, § 150A. Prior to July 18, 1963, the site was the subject of a grandfathered site assignment under St. 1955, c. 310, § 2, as a site utilized for solid waste disposal purposes prior to July 25, 1955.

On August 3, 1988, MassDEP² revised its Ash Management and Disposal Policy SWM-7-8/88 (the Ash Policy), which set forth new handling and disposal requirements for ash and residue produced by solid waste combustion facilities. The revised policy requires that disposed ash be monofilled in dedicated landfills incorporating best available engineering technology and Department-approved leachate control systems and operated in accordance with regulations governing solid waste landfills and policies issued by the Department governing ash disposal and testing. The Landfill is currently subject to an Administrative Consent Order that was initially issued on June 29, 1989, and has been amended eleven times since (the Consent Order). The Consent Order was issued in conjunction with Resco's plans for installing acid gas scrubbers at the WTE facility as required by the Solid Waste Act of 1987. MassDEP issued the Consent Order to bring Resco's ash management and disposal requirements into compliance with the Department's requirements, including the new Ash Policy. Under the Consent Order, the Landfill was initially scheduled to close by December 31, 1996, assuming the then-current rate and density of ash being generated for disposal at the WTE facility. The Consent Order required Resco to prepare and submit to the Department for approval a Final Engineering Plan (FEP) in accordance with the requirements detailed in the Consent Order.

Prior to issuance of the Consent Order, MassDEP had issued an unrelated earlier Administrative Consent Order to Resco, dated February 19, 1987, requiring an assessment of the environmental impacts of the use of ash at the Landfill, including the impacts of heavy metals, inorganic salts and organics in the ash and on surface and ground waters. From 1987 through 1989, Wehran Engineering reviewed the data and information available at that time, conducted environmental assessments and completed a hydrogeologic investigation to evaluate the conditions at the Landfill.

The Landfill was initially developed by WSI's predecessor-in-interest, Resco, over areas where municipal solid waste (MSW) had been disposed by MDCC. Removal of the previously deposited MSW and ash at the Landfill was not feasible. Taking into consideration the data collected during the landfill assessment and other known information about the site, including the fact that ground water in the vicinity is not used or reasonably expected to be used for drinking water purposes, MassDEP approved the proposed FEP, including the design plans for a slurry wall (barrier wall), an ash separation layer, a leachate collection system, and installation of a geomembrane cap and final cover around the perimeter of the existing Landfill (i.e., outside of the barrier wall). An Existing Landfill Permit, Authorization to Construct, and

² MassDEP was formerly known as the "Department of Environmental Quality Engineering."

Authorization to Operate was issued by MassDEP on August 9, 1991, in accordance with 310 CMR 19.000 and MassDEP's policies applicable to ash landfills.

Activities completed between 1992 and 1994 consisted of construction of the barrier wall, installation of the leachate collection system, ash separation layer, stormwater controls and placement of the cap and final cover around the perimeter of the Landfill. In May 1994, MassDEP approved the Construction Certification Report for the work.

Given the geologic setting and physical constraints of the site, the Department-approved design plan incorporates an alternative ash monofill design capable of achieving the design performance standards for ash disposal monofills, as allowed for and set forth in the Department's Ash Policy. The barrier wall, ash separation layer, and internal leachate removal systems achieve an ash monofill design as an alternative to a conventional liner and leachate collection system. The design includes a leachate control system that maintains a hydraulic gradient radially inwards from the barrier wall consistent with the Ash Policy. Pumped leachate is either controlled, monitored and discharged to sewer by WSI under a permit issued by the Lynn Water and Sewer Commission or reused at the WTE facility. Pairs of piezometers exist inside and outside the barrier wall to monitor hydraulic gradients and the effectiveness of the system.

D. Summary of MEPA History

The Landfill has been the subject of extensive prior review under MEPA. On July 14, 1989, the Secretary of Environmental Affairs ("Secretary") issued a certificate on a Notice of Project Change (the "NPC Certificate") regarding the installation of advanced air pollution control technology at the adjacent WTE facility, and noted that additional study of the disposal of ash from the combustion of solid waste at the facility was required. In January 1990, an Environmental Notification Form ("ENF") was filed to address the modification and closure of the Landfill in accordance with the Consent Order. In February 1990, the Secretary issued a certificate on this ENF requiring the preparation of an Environmental Impact Report ("EIR") addressing long-term ash characterization and disposal, and post-closure monitoring, but specifically excluding issues related to landfill closure, which was authorized to proceed in accordance with the Consent Order without further MEPA review.

In 1995, both a draft and final EIR were filed as required by the NPC Certificate. The 1995 studies evaluated future ash disposal alternatives beyond the established landfill closure date of December 31, 1996, and selected continued use of the Landfill as the preferred long-term disposal plan until final elevations were achieved. On June 29, 1995, the Secretary issued a Certificate on the Draft EIR, in which the Secretary stated:

[B]ecause ash compaction rates within the [L]andfill have been greater than originally estimated and the amounts of ash have been less than the estimated 117,000 tons per year (tpy), the landfill has a remaining capacity of 1,619,500 cubic yards (as of 11/26/94)

or a projected remaining life of 11.4 years. The proponent's preferred alternative for ash disposal is to continue to utilize the [Landfill] until it fills the remaining capacity and meets the final grading plan of the FEP. . . The decision whether to amend the [1989 Consent Order] and allow ash landfill operations to continue beyond December 31, 1996 rests with DEP.

Massachusetts' rules did not, and do not, specifically address the calculated life of a solid waste landfill. In Massachusetts, the operating life of a landfill is typically based upon the amount of air space available to be filled with waste in accordance with Department approvals rather than a date certain. Sometimes the lifespan is discussed in terms of years, based upon the amount of waste that the landfill expects to receive and the maximum amount of waste that it is authorized to take in per day, but this is just an estimate of how long the landfill will remain open.

The Secretary next issued a certificate on the Final EIR, dated November 16, 1995. In that certificate, the Secretary determined that the regulatory decision of whether to permit ash disposal at the Landfill beyond the scheduled final closure date of December 31, 1996, rested with MassDEP. Thereafter, MassDEP and WSI executed the Seventh Amendment to the Consent Order, dated August 13, 1996, to reflect the remaining capacity at the Landfill, with no increase in the design capacity. In addition, the Seventh Amendment required WSI to construct the Bear Creek Wildlife Sanctuary as a mitigation measure that focused on the preservation, restoration or conservation of the Rumney Marshes Area of Critical Environmental Concern.

The vertical limit established by the Consent Order and the approved FEP is 50 feet above Mean Sea Level (MSL). Under MassDEP's regulations, any proposal to change the maximum height elevation of fifty (50) feet above MSL for the Landfill would fall within the regulatory definition of a "vertical expansion" and would require a new site assignment (i.e., a Major Modification of the Site Assignment) from the Saugus Board of Health pursuant to 310 CMR 16.22(2).

In 2006, with the Landfill nearing its capacity, as measured by the maximum grade established by the Consent Order and approved FEP, WSI proposed modifications to the FEP, including:

- Reducing the minimum slope of approximately five percent to one percent³ while maintaining the maximum elevation established by the Consent Order of 50 feet above MSL, while continuing to meet stormwater control requirements;
- Using an alternative final cover profile design (i.e., a geocomposite drainage material), which was allowable under MassDEP's regulations; and
- Allowing for 490,000 cubic yards of ash to be deposited on some interior slopes within the Landfill (Valleys III, IV and V) below the maximum grade before the final cover is applied.

³ A slope change from 5 percent to 2 percent was ultimately approved in 2008.

Before proceeding, WSI sought an advisory opinion from the MEPA Office as to whether the proposed changes required the filing of a Notice of Project Change. By letter dated December 22, 2006, the Secretary determined that the proposed changes to the project did not require further MEPA review, after finding:

- there was no change in the amount of ash received at the Landfill on a daily basis;
- the proposed changes would not impact Bear Creek Wildlife Sanctuary, which was created by WSI as a mitigation measure; and
- no new structures, perimeter roadways, or increased capacity for stormwater runoff retention would be needed.

The proposed changes required both an amendment to the Consent Order and MassDEP approval of changes proposed to the FEP. Accordingly, the Secretary's response, dated December 22, 2006, noted that MassDEP's permitting procedures would handle any issues that arose because of these minor project changes. On May 16, 2008, MassDEP issued the Ninth Amendment to the Consent Order to facilitate the proposed changes to the final slope in the FEP and to require WSI to fund, as a mitigation measure, up to \$250,000 for engineering services to create a Phase IV Remedy Implementation Plan for the former Daggett Landfill site located immediately south of the WSI property.⁴ On December 2, 2008, MassDEP issued a decision in accordance with 310 CMR 19.000, approving the proposed changes to the FEP.⁵

In May 2016, WSI filed an ENF with the MEPA Office proposing continuation of the use of the Landfill. The proposed project (Partial Valley Fill Project) entails modifying the slopes in two interior valleys within the existing operational footprint. These changes to the final cover design for the Landfill will create additional disposal capacity, estimated to be up to five years based on WSI's current rate of disposal, while maintaining the maximum height elevation of 50 feet above MSL allowed under the Consent Order and approved FEP. The ENF assesses the potential environmental impacts of the proposed project and proposes monitoring and mitigation measures.

On August 5, 2016, the Secretary issued a certificate on the proposed Continuation of Use of the Saugus Ash Monofill concluding the no further MEPA review is required, that MassDEP has sufficient regulatory authority to condition permits as necessary to avoid, minimize and mitigate projects impacts, and that the project could proceed to permitting. The certificate also concluded that the proposed project does not exceed the review thresholds that trigger implementation of the Executive Office of Energy and Environmental Affairs' Environmental Justice (EJ) Policy. Regardless, the ENF identified six census block groups designated as EJ communities that are located within one mile of the project and WSI provided outreach

⁴ The former Daggett Landfill site is listed as a priority project in the Rumney Marshes ACEC Salt Marsh Restoration Plan, dated April 2002, prepared by the Massachusetts Wetlands Restoration Program and the former Department of Environmental Management.

⁵ The approved changes authorized an alternative final cover design pursuant to 310 CMR 19.113, and a reduced slope of two percent within Phases III, IV and V of the Landfill.

consistent with the spirit and intent of the enhanced public participation provisions of the EJ Policy. Public notice of the availability of the ENF was translated to Spanish and published in the Lynn Item, Saugus Advertiser, and Saugus Advocate.

E. Mitigation Required in Connection with the Approval of the Partial Valley Fill Project

Simultaneously with issuance of its permitting decision for the proposed Project, the Department is issuing the Eleventh Amendment to the Consent Order to provide additional mitigation for WSI's continued use of the Landfill. The Amendment requires WSI to fund up to \$2,500,000 for work related to the preservation, restoration or conservation of the Rumney Marshes Area of Environmental Concern (hereinafter "the 2018 Rumney Marshes Account"). The Department intends to use the 2018 Rumney Marshes Account to fund implementation of the previously approved Phase IV Remedy Implementation Plan for the so-called Daggett Landfill site located adjacent to the Landfill in Saugus, Massachusetts (the "Daggett Site") in accordance with M.G.L. c. 21E and the Massachusetts Contingency Plan, 310 CMR 40.0000 (hereinafter "the Daggett Site Remedy Implementation Project"). The Department's contractor previously completed the Phase IV Remedy Implementation Plan using funds contributed by WSI as a mitigation commitment under the Ninth Amendment to the Consent Order which authorized the first partial valley fill project at the Landfill. The current owner of the Daggett Site, a trust unrelated to WSI, purports to be financially unable to perform the work needed.

If the Department's Final Decision granting the Application is either voided or remanded following completion of judicial review (if any), or WSI elects not to proceed with the work described in the Department's final decision on the Application, WSI will not be required to make any payments towards the mitigation commitment, and WSI will have no obligation to implement the Daggett Site Remedy Implementation Project. See ¶ 7.A.(q) of the Eleventh Amendment.

F. Current Application for the Partial Valley Fill Project

In April 2017, WSI submitted to MassDEP an application relating to the placement of additional fill in two valleys at the Landfill (Application), referred to as the "Partial Valley Fill Project." As stated in Section I.A, above, on November 1, 2017, MassDEP issued a Provisional Decision for Public Comment pertaining to the Application for the Partial Valley Fill Project.

MassDEP has considered each comment in its entirety. MassDEP has generally grouped related comments together for response below. No significance should be attached to the format in which MassDEP chose to cite or summarize the original comment or the order in which responses in this RTC are provided.

II. MassDEP RESPONSE TO SIGNIFICANT COMMENTS ON THE PROVISIONAL DECISION

Comment 1:

One commenter expressed concern about the use of a geocomposite gas venting layer in the final cover design for the Landfill in lieu of a six-inch thick soil gas venting layer.

MassDEP Response:

The performance standard set forth in Solid Waste Management Regulations at 310 CMR 19.112(5) for the landfill gas venting layer requires free movement of landfill gas out of the Landfill to gas control devices or vents. The design standard for the landfill gas venting layer set forth in the Solid Waste Management Regulations at 310 CMR 19.112(5)(b)3.b *Design Standards* allows for the landfill gas venting layer to be composed of either a soil material or synthetic material, such as a geocomposite. In the Application, WSI proposed the use of either a six-inch thick soil layer or a geocomposite gas venting layer, and the use of either is approved in the Final Decision. MassDEP has previously approved the use of either a soil layer or a geocomposite material for the landfill cap gas venting layer at other landfills in Massachusetts. As designed, both of the proposed designs meet the standards of 310 CMR 19.112(5). The selected gas venting layer will be required to meet the technical specifications contained in the Closure and Post-Closure Plan, revised April 2017, and Figure 5: 207 FEP-Final Cover Details contained in the Application.

Comment 2:

Some commenters expressed concern about the management of stormwater at the Landfill, including concern about filling the stormwater drainage swales at the Landfill and whether the proposed project will significantly increase the potential contamination from stormwater runoff.

MassDEP Response:

The proposed project will not increase the potential contamination from stormwater contact. Contact water in uncapped areas of the Landfill will be managed separately from stormwater that is collected and conveyed from capped areas of the Landfill, consistent with current requirements and practices.

The Landfill's existing system of ridges and valleys is designed to carry stormwater from the capped areas to a stormwater basin. Stormwater collected in uncapped areas is directed to infiltration basins and managed through the Landfill's existing leachate collection and pumping system within the barrier wall that surrounds the site. The proposed redesign of the valleys will involve the reopening of previously capped areas, creating limited work areas similar to the active areas being filled over the past years of operation. As proposed, portions of the work area will be opened and recapped in a phased sequence, not all at one time. Consistent with current operations, any contact water collected from uncapped areas will continue to be

managed through the existing leachate collection system and pumped to the WTE facility for reuse at the plant, or discharged to the local sewer system.

Only the shape and grade of the valleys on the final cover will be modified. The valleys will not be completely filled; as modified, the valleys will continue to effectively collect and convey stormwater to the stormwater basin. Once capped, the stormwater channels will convey stormwater from the capped areas to the existing stormwater basin in similar fashion to the existing design of ridges and valleys. The existing stormwater basin does not need to be modified in connection with the Partial Valley Fill Project.

Comment 3:

Several commenters expressed concern about potential flood impacts to the Landfill and the leachate collection system due to sea level rise and climate change impacts.

MassDEP Response:

MassDEP has considered the potential for flooding on future operations. Nonetheless, MassDEP notes that the Federal Emergency Management Agency's (FEMA) most recent Flood Insurance Rate Maps (FIRM), revised on July 16, 2014, indicate that no portion of the Landfill is within the 100-year floodplain, which is established at elevation 10 NAVD.⁶ The area affected by the current proposal, which is limited to the Partial Valley Fill Project area, is approximately 35-40 feet above the base flood elevation. Additionally, the existing access road to the active area of the Landfill is located at an elevation of approximately 17 feet. The regulations at 310 CMR 19.043(5)(i) – *Duty to Inform*, require, in part, the operator of a facility to report by the next business day any emergency condition that will have an extended impact on facility operations or pollution control. MassDEP has not observed, and WSI has not reported to MassDEP, that the Landfill has been impacted by flooding.

With respect to the leachate pumping concerns expressed, in the event leachate is unable to be conveyed to the WTE facility, leachate is conveyed via force main to the Lynn Water and Sewer Commission's (LWSC's) wastewater treatment facility. As part of its operating protocols, WSI has historically made provisions for backup power to the leachate pump stations to ensure leachate is still able to be conveyed to the LWSC treatment facility in the event it is unable to be conveyed to the WTE plant due to an extended power outage or for any reason. MassDEP is including a condition in its Final Decision that requires WSI to formalize these protocols by submitting, within thirty (30) days of the effective date of the Final Decision, a BWP SW45 permit application to update its Operation and Maintenance Plan by adding provisions for backup power for the leachate collection and treatment system.

⁶ North American Vertical Datum of 1988.

III. MassDEP RESPONSE TO ADDITIONAL COMMENTS

MassDEP is required to review a permit application in light of the regulatory requirements that govern that particular application category. If a proposed project meets the regulatory criteria, MassDEP must issue the requested permit. Some of the comments received during the public hearing and public comment period for the Partial Valley Fill Project are not germane to the decision-making process for the Application. Nonetheless, MassDEP is providing responses below to address other comments that the public submitted.

Comment 4:

Some commenters expressed concerns about serious family and/or neighborhood health issues, including cancer, which they attribute to WSI's operations at the Landfill and at the WTE facility.

MassDEP Response:

MassDEP acknowledges the concerns expressed by the commenters. The Massachusetts Department of Public Health (DPH) conducted an evaluation of cancer incidence rates in the Town of Saugus in March 2016, which concluded that, "[o]verall, there does not seem to be an unusual pattern of cancer in the Community of Saugus." The DPH study report is accessible through DPH's website for its Bureau of Environmental Health, at:

<http://www.mass.gov/eohhs/docs/dph/environmental/investigations/saugus-wheelabrator-0316.pdf>.

Comment 5:

Some commenters expressed concern about the ongoing operation of WSI's WTE facility, including soot, noise and steam "blows" attributed to the WTE facility.

MassDEP Response:

As noted elsewhere in the RTC, the WTE facility is not the subject of this Application or the Final Decision.

With respect to alleged soot from the WTE facility, it should be noted that the WTE facility is equipped with a number of pollution control devices and that emissions are monitored for opacity through Continuous Opacity Monitors (COMs). The COMs data demonstrates that the WTE facility is in compliance with opacity limits and Particulate Matter emission limits set forth in its air quality permit.

With respect to steam releases and associated noise, MassDEP notes that the WTE facility is designed for two basic operating scenarios. In the primary scenario, the WTE facility uses process-generated steam to power a steam turbine, thereby creating electricity, which is conveyed onto the local power grid. In the second scenario, the WTE facility is unable to transfer electricity to the grid, either due to a planned or an unplanned event. For an unplanned event, such as a sudden grid issue, the steam must be immediately vented. For a

planned event, such as planned maintenance or upgrade work by the power distribution company to local electrical distribution lines, the steam venting is planned in advance. The WTE design includes a silencer, sometimes referred to as a muffler, which attenuates sound associated with steam releases.

In 2016, MassDEP became aware of noise complaints associated with steam releases at the WTE facility following the failure of the silencer (muffler). Subsequently, WSI replaced the failed unit. In the summer of 2017, WSI notified Saugus and Revere officials that NGrid was planning line maintenance in the area and that the WTE facility would have to release steam. When NGrid extended the outage, WSI notified local officials and MassDEP.

Comment 6:

Some commenters expressed concern that the Landfill liner is not a double, plastic liner system as typically required for a newly constructed landfill.

MassDEP Response:

As discussed in the Introduction and Background, Section I.C, the installation of a conventional liner system was not feasible due to the previously deposited MSW and ash at the Landfill. The Solid Waste Management Regulations expressly allow alternative groundwater protection system designs to be considered and approved if they meet certain equivalency standards. The approved design includes a barrier wall, ash separation layer, stormwater management system and internal leachate collection system that maintains a hydraulic gradient radially inwards from the barrier wall consistent with the Ash Policy. Pumped leachate is either controlled, monitored and discharged to sewer by WSI under a permit issued by the Lynn Water and Sewer Commission or reused at the WTE facility. Pairs of piezometers exist inside and outside the barrier wall to monitor hydraulic gradients and the effectiveness of the system. A geomembrane cap and final cover system was also installed around the perimeter of the Landfill (i.e., outside of the barrier wall).

Comment 7:

Several commenters expressed concern regarding environmental monitoring of the Landfill, leachate control and the effectiveness of the barrier wall. One comment asserts that the Landfill is required to perform groundwater monitoring per RCRA.

MassDEP Response:

RCRA:

In 1991, Subtitle D of RCRA was passed, which, among other things, established the first federal criteria for municipal solid waste landfills. MassDEP's solid waste program and associated rules are an expansion of RCRA Subtitle D. Since the enactment of RCRA, landfill design and construction techniques, the manufacturing of landfill components, and the rules and regulations concerning them, have continued to be developed, established, and refined.

MassDEP is responsible for administering Subtitle D of RCRA in Massachusetts.⁷ Part 258 sets forth revised minimum federal criteria for municipal solid waste landfills (MSWLFs), including minimum national criteria for the location, design, operation, cleanup, and closure of MSWLF units. Part 258 establishes differing requirements for existing and new units, and it provides States the flexibility to consider the resource value of ground water in determining appropriate landfill design, groundwater monitoring, and corrective action requirements.

Site-specific monitoring at the Landfill:

WSI has conducted groundwater monitoring, and it continues to conduct groundwater monitoring, that meets the performance standards of RCRA Subtitle D and 40 C.F.R. Part 258. Prior to issuance of the Consent Order, establishing the requirements for the FEP for the ash Landfill, MassDEP had issued an earlier Administrative Consent Order to Resco, dated February 19, 1987, requiring an assessment of the environmental impacts of the use of ash at the Landfill, including the impacts of heavy metals, inorganic salts and organics in the ash and on surface and ground waters. In October 1987, Resco submitted a preliminary report prepared by Wehran Engineering entitled, "Impact of the Disposal of Ash Residue at the RESCO Facility, Saugus, Massachusetts, Review of Existing Information," which reviewed the data and information available at that time to provide a basis for evaluating the impacts of the ash disposal area on ground water, surface water, air and biological life in the vicinity, and it made recommendations for further study. Resco followed up that submittal with a report, prepared by Wehran Engineering, entitled, "Saugus RESCO Environmental Assessment Sampling Results Status Report," dated May 1988, in accordance with the February 19, 1987 Consent Order. That report provided a status report on the progress of the environmental assessment and included recommendations for additional assessment work at the site. In addition, Resco submitted a report prepared by Wehran Engineering, entitled, "Hydrogeological Investigation Report," which included the results of an investigation to identify the hydrogeological site conditions of the former Saugus Landfill performed between July and November 1989.

The purpose of conducting the hydrogeologic investigation was to provide sufficient data to aid in the development of the FEP, including the location and design of a barrier wall and a leachate treatment system, to achieve design and performance specifications. The tasks completed during the investigation included installation and development of 21 monitoring wells, measurements of groundwater levels and tidal fluctuations, permeability testing in selected monitoring wells, groundwater flow modeling simulating staged closure sequences, and collection and analysis of environmental samples from selected monitoring wells. Taking this data and other information known about the site into consideration, including the fact that ground water at the Landfill is not used or reasonably expected to be used for drinking water purposes, MassDEP approved the proposed FEP, including the design plans for the barrier wall and leachate collection system, and issued an Existing Landfill Permit, Authorization to

⁷ The Massachusetts MSWLF permit program was first approved on July 5, 1995 (60 FR 34982).

Construct, and Authorization to Operate on August 9, 1991, in accordance with 310 CMR 19.000 and MassDEP's policies applicable to ash landfills.

As discussed above in the Introduction and Background, Section I.C, and the Response to Comment 6, above, the approved design plan incorporates an alternative ash monofill design capable of achieving the design performance standards for ash disposal monofills, as allowed for and set forth in the Department's Ash Policy. The barrier wall and internal leachate collection system maintains a hydraulic gradient consistent with the Ash Policy. The system effectively creates a vacuum (negative pressure) within the Landfill, collecting and removing leachate from the area surrounded by the barrier wall. Pumped leachate is either discharged to the sewer or reused at the WTE facility.

Subsequent to Department approval of the alternative landfill design, the Landfill has been, and it continues to be, monitored not by a traditional groundwater monitoring regime but instead by monitoring that has consistently demonstrated that the barrier wall system is working as designed (i.e., that the system is functioning to provide containment). Groundwater elevations on both sides of the barrier wall are monitored on a weekly basis at observation wells (pairs of piezometers) evenly spaced around the barrier wall demonstrating that the inward hydraulic is maintained. This monitoring network consists of a sufficient number of monitoring wells and piezometers necessary to monitor hydraulic gradients and the effectiveness of the system. The Department does not consider it necessary to conduct additional groundwater sampling in order to determine whether corrective action is needed, given that the current monitoring regime demonstrates that the barrier wall system is functioning as designed to provide effective containment and the leachate collection system is fully operational. Furthermore, the collection of additional groundwater monitoring data would be of limited value, if any, given the significance of tidal influences in the area, the presence of other industrial sources in close proximity, the Daggett Landfill, and the existence of capped landfill areas outside of the barrier wall.

WSI provided supplemental information to the Application dated October 17, 2017, to further document the past performance of the barrier wall and leachate collection system. This information demonstrates the barrier wall meets the performance criteria established by the Consent Order.

Comment 8:

Several commenters expressed concern that the ash is toxic or hazardous and contains mercury, cadmium and lead, noting they look to the state and MassDEP to protect them from dangers like toxins in the ash.

MassDEP Response:

MassDEP has promulgated regulations in accordance with state laws that are intended to be protective of human health and the environment. Regular testing of ash from solid waste

combustion facilities has been required by MassDEP since 1987 pursuant to the Department's policy entitled "Ash Sampling and Analysis Guidance-SWM-9-7/88" and in later guidance provided by EPA and MassDEP.

The WSI WTE ash consists of non-combustible solid waste materials from the combustion process and air pollution control equipment residue which includes lime. The combined ash is sampled in accordance with the Wheelabrator Saugus Ash Sampling Plan dated August 2015. The combined ash is sampled every 9 months during the WTE facility stack testing event. The ash samples are collected and analyzed by a Massachusetts certified laboratory by the Toxicity Characteristics Leaching Procedure (TCLP) for metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver). The ash is also analyzed for dioxin and furans in accordance with the requirements of the WTE facility's operating permit. The United States Environmental Protection Agency (US EPA) has defined characteristics that determine if a waste is a hazardous per 40 CFR Part 261: Identification and Listing of Hazardous Waste.

The detectable concentrations of metals in the combined ash have consistently been reported below the US EPA hazardous characteristics levels and the ash is therefore defined as a non-hazardous solid waste and is acceptable for disposal at the Landfill.

Comment 9:

Several commenters expressed support for the Bear Creek Wildlife Sanctuary and WSI's continued maintenance of the bird habitat that has been developed at the site.

MassDEP Response:

The Bear Creek Wildlife Sanctuary (Sanctuary) consists of certain lands owned by WSI including the surrounding marshes, managed transition habitat at the perimeter of the Landfill and the Landfill itself. As a requirement of the Consent Order, WSI has provided funds for the preservation, restoration or conservation of the Rumney Marshes Area of Environmental Concern of which the Sanctuary is a part.

In the mid-1990s, WSI completed a project to restore the native ecological habitats around the perimeter of the site. Since the work has been completed, WSI has been maintaining the wildlife-based vegetation at the Sanctuary and also hosts group visits to the Sanctuary for scientific and educational purposes.

As owner and operator of the Landfill, WSI is required by the Massachusetts Solid Waste Regulations at 310 CMR 19.000 to maintain the Landfill final cover system, including the vegetative layer that functions to protect the cap. The regulations set forth at 310 CMR 19.142, *Landfill Post-Closure Requirements*, require in part, inspection, maintenance, care and monitoring

of the Landfill for such period as stipulated at 310 CMR 19.142(2) unless approved otherwise by MassDEP.⁸

Following completion of closure and capping of the Landfill, a detailed Post-Closure Maintenance and Monitoring Plan must be submitted for MassDEP review and approval. MassDEP notes that the 2016 MEPA Certificate states that the post-closure plan is expected to address ongoing maintenance of the Bear Creek Wildlife Sanctuary. In addition, pursuant to 310 CMR 19.143(1)(a) any change in post-closure use of the Landfill will require submittal of an application to MassDEP for review and approval.

Comment 10:

Several commenters expressed concern that the existing Landfill is located in the Rumney Marshes Area of Critical Environmental Concern (ACEC).

MassDEP Response:

The Rumney Marshes ACEC has been characterized by the U.S. Fish and Wildlife Service as one of the most biologically significant estuaries in Massachusetts north of Boston. The ACEC is more than 2,600 acres in size and is located in the municipalities of Boston, Lynn, Revere, Saugus, and Winthrop. The ACEC is comprised of two separate marsh systems, Rumney Marsh and Belle Isle Marsh. This designation was made by the Secretary of Environmental Affairs on August 22, 1988, while the Consent Order was being negotiated with Resco, WSI's predecessor in interest. The designation was subsequently modified by the Secretary in 1989 to facilitate the site assignment of a parcel of land contiguous to the existing WTE facility for Resco to install acid gas scrubbers on the WTE facility. The contiguous parcel and the existing facility are both located in the Rumney Marshes ACEC. In regulating the Landfill, MassDEP must take into consideration the fact that the Landfill was in existence before the Secretary designated the Rumney Marshes ACEC.

Despite the ecological value of the Rumney Marsh and Belle Isle Marsh and their uniqueness as large natural areas within a highly developed and urbanized region, the ACEC suffers from a host of problems which diminishes its values and impairs its vital ecological functions. While it is not possible to turn back the clock, efforts are ongoing to identify damaged and destroyed wetlands that may be restorable and to bring them back to health.

In 2002, the Massachusetts Wetlands Restoration Program (MWRP) developed a framework for identifying restorable wetlands and evaluating their potential to help improve the water quality, flood storage, and fish and wildlife habitat of our watersheds and estuaries. This approach was applied in the Rumney Marshes ACEC, resulting in the preparation of the *Rumney Marshes Area of Critical Environmental Concern Salt Marsh Restoration Plan*, prepared by

⁸ For purposes of 310 CMR 19.142, the post-closure period shall extend for a minimum of a 30-year period, provided MassDEP may extend the post-closure monitoring and maintenance period as authorized at 310 CMR 19.142(4).

Massachusetts Wetland Restoration Program and Massachusetts Department of Environmental Management on behalf of the Rumney Marshes ACEC Salt Marsh Restoration Task Force Group⁹, dated May 2002 (SMRP).

Over the years, WSI has contributed funding, in the form of mitigation commitments, for certain projects to improve and enhance the overall value of the Rumney Marshes ACEC. The SMRP profiles 30 restoration projects, one of which is the WSI Landfill. As a component of landfill closure, a large portion of the Landfill has since been transformed into publicly accessible open space, with significant areas of restored grassland and shrub habitat known as the Bear Creek Wildlife Sanctuary, including approximately three acres of fringing salt marsh along the south and east sides of the Landfill, adjacent to Bear Creek.

The SMRP profiles the Ballard Street Salt Marsh restoration project. Under the first amendment to the Consent Order, WSI established a mitigation fund which was to be used for work related to the preservation or restoration of the Rumney Marshes ACEC. In 2014, WSI contributed \$589,000 from the fund to provide state matching funds for a federal North American Wetlands Conservation Grant. The Massachusetts Department of Conservation and Recreation, in partnership with the Massachusetts Division of Ecological Restoration, obtained the grant to implement the Ballard Street Salt Marsh Restoration Project to protect 297 acres of continuous salt marsh with fringing buffer and restore 33 acres of coastal salt marsh. This project contributed significant acreage toward the preservation of nesting, breeding, feeding, wintering, and buffer habitat critical to numerous species, including several species of conservation. The total project cost was estimated at \$3,322,198.

The SMRP also profiles the Daggett Landfill (Daggett Site) project which is located on the northern bank of the Pines River, between Route 107 and the WSI Landfill. The Daggett Site is about three acres in size and is cited in the SMRP as a major contributor of non-point source pollution into the Saugus/Pines River estuary. The SRMP states:

The site presents two opportunities for small-scale restoration projects. In its current condition, the southern edge of the landfill is eroding, potentially allowing sediment and leachate into the Pines River. As an element of a comprehensive site remediation plan, small areas of fringing marsh along the southern edge of the landfill could be restored to help stabilize this area. A portion of the landfill shoreline may require rip rap stabilization. Closure and clean-up of the landfill and stabilization of the banks will be a significant step toward improving water quality in the Pines River.

⁹ The Rumney Marshes ACEC Salt Marsh Restoration Task Group, consisting of municipal, state and federal officials, and representatives from local advocacy groups, was formed in 1996 to help develop a restoration plan. The Task Group collected information about the Rumney Marshes ACEC and about potential wetland restoration sites, and provided a forum for coordinated review of major projects with potential for adverse as well as positive impacts to the salt marsh systems.

The Daggett Site is inactive and the current owner, a trust unrelated to WSI, purports to be financially unable to perform the work needed. The Daggett Site was listed as a Chapter 21E site in 1989 under the provisions of the Massachusetts Contingency Plan (MCP). Given the current ownership's financial status and long history of inaction at the site, the SMRP recognized that aggressive state action would be needed to bring this vision to reality. Therefore, under the Ninth Amendment to the Consent Order, as an additional mitigation measure for the first valley fill project, WSI provided the funding which was used by the Department to hire a state contractor to create a Phase IV Remedy Implementation Plan (Phase IV RIP) for the site. The Phase IV RIP was subsequently completed under Departmental oversight.

Simultaneously with this RTC, MassDEP is issuing its Final Decision regarding WSI's proposal to further adjust the interior slopes of the Landfill. If there is no appeal of the Final Decision or if the Decision is upheld on appeal, then WSI will provide \$2,500,000, as provided by the Eleventh Amendment to the Consent Order, which the Department will direct to be used to fund the implementation of the Phase IV Plan or, if the Daggett Site project is deemed infeasible by the Department after a preliminary review, other work related to the preservation, restoration or conservation of the Rumney Marshes ACEC.

Comment 11:

Some commenters commented that the Landfill should have been shut down in 1996 in accordance with the 1989 Consent Order.

MassDEP Response:

As discussed above in the Introduction and Background, Section I.C, MassDEP issued the Consent Order to bring Resco's ash management and disposal practices into compliance with newly adopted requirements contained in the Ash Policy. While the 1989 Consent Order initially provided for the Landfill to close by December 31, 1996, such closure also contemplated that Resco might "take action to reduce the volume of ash deposited at the Landfill or significantly reduce the designed filling rate used in the FEP." Many commenters expressed concern regarding final closure of the Landfill, especially given its location in the Rumney Marshes Area of Critical Environmental Concern. MassDEP addresses those comments below.

As stated in the Introduction and Background, Section I.D, the operating life of a landfill is typically based upon the amount of air space available to be filled with waste in accordance with Department approvals rather than a date certain. Any change to the maximum height elevation of 50 feet above MSL for the Landfill would fall within the regulatory definition of a "vertical expansion" and require a new site assignment (i.e., a Major Modification of the Site Assignment) from the Saugus Board of Health pursuant to 310 CMR 16.22(2), a joint process in which MassDEP would first issue a determination on site suitability for any such proposed modification.

Following issuance of the 1989 Consent Order, it became apparent after construction of the barrier wall that significant settlement was occurring that was inconsistent with the assumed rate and density of the ash being generated for disposal by the WTE facility. The actual rate of settlement was not anticipated in 1989.

In 1995, both a draft and a final EIR were filed as required by the NPC Certificate. In the Secretary's certificate on the Final EIR, dated November 16, 1995, the Secretary determined that the regulatory decision of whether to permit ash disposal at the Landfill beyond the scheduled final closure date of December 31, 1996, rested with MassDEP. Thereafter, MassDEP and WSI executed the Seventh Amendment to the Consent Order, dated August 13, 1996, to reflect the remaining capacity at the Landfill, which is generally consistent with closure of other landfills in Massachusetts, rather than a hard final closure date.

As discussed above in the Introduction and Background, Section I.D, the Secretary determined in 2006 that no additional MEPA review was required regarding the first valley fill project. MassDEP and WSI executed the Ninth Amendment to the Consent Order, dated May 23, 2008, allowing the proposed changes to the final slope and requiring WSI to fund up to \$250,000 for engineering services to create the Phase IV Remedy Implementation Plan for the former Dewey Daggett Landfill site located immediately south of the WSI property.¹⁰ On December 2, 2008, MassDEP issued a decision in accordance with 310 CMR 19.000 approving the proposed changes to the FEP.¹¹

On August 5, 2016, the Secretary issued a certificate on the proposed continuation of the use of the Landfill and proposed Partial Valley Fill Project, concluding that no further MEPA review is required, that MassDEP has sufficient regulatory authority to condition permits as necessary to avoid, minimize and mitigate projects impacts, and that the project could proceed to permitting.

See also the Response to Comment 10, above, with respect to concerns about the ACEC.

Comment 12:

Some commenters expressed concern about MassDEP's use of an Administrative Consent Order to regulate the Landfill.

MassDEP Response:

MassDEP has a variety of authorities and tools for regulating different sites and activities, including enforcement and permitting. As discussed above and in the Introduction and

¹⁰ The former Dewey Daggett Landfill site is listed as a priority project in the Rumney Marshes ACEC Salt Marsh Restoration Plan, dated April 2002, prepared by the Massachusetts Wetlands Restoration Program and the former Department of Environmental Management.

¹¹ The approved changes authorized an alternative final cover design pursuant to 310 CMR 19.113, and a reduced slope of two percent within Phases III, IV and V of the Landfill.

Background, Section I.C, MassDEP issued the Consent Order to bring Resco's ash management and disposal requirements into compliance with newly adopted requirements contained in the Ash Policy. The 1989 Consent Order was selected as the best option available to the Department at the time to mandate and enforce changes in the design and operation of the Landfill, given that the Department had not promulgated regulatory changes to give legal effect to the new Ash Policy. In accordance with the Consent Order, WSI timely developed the FEP for MassDEP review and approval. In 1991, MassDEP issued an Existing Landfill Permit, Authorization to Construct, and Authorization to Operate in accordance with 310 CMR 19.000 and MassDEP's policies applicable to ash landfills. Given the detailed and site specific requirements imposed by the Consent Order, the provision for mitigation commitments, and the protections it provides to both parties' interests, it has continued to provide a useful tool for the Department's regulatory oversight of the Landfill.

Comment 13:

Several commenters stated that improved enforcement of the Massachusetts waste disposal restrictions (commonly referred to as "Waste Bans") would eliminate the need for the WTE facility.

MassDEP Response:

The WTE facility is not subject to review in connection with WSI's Application for the Partial Valley Fill Project. MassDEP's role regarding the proposed landfill project is to review the subject application in accordance with the applicable regulations. MassDEP acknowledges that Waste Bans are one of the tools used to address the Commonwealth's solid waste management requirements, consistent with the regulations and the Massachusetts Solid Waste Master Plan.

Comment 14:

Several commenters expressed concern that the project is located in an Environmental Justice Area.

MassDEP Response:

The Commonwealth's Executive Office of Energy and Environmental Affairs (EEA) has established an Environmental Justice (EJ) Policy. Through its agencies and programs, EEA works to engage environmental justice populations in environmental decision-making through expanded and inclusive outreach.

As part of the Secretary's commitment to Environmental Justice, enhanced public participation is required for the following projects as they undergo review in accordance with MEPA:

- Any project that exceeds an Environmental Notification Form (ENF) threshold for air, solid and hazardous waste (other than remediation projects), or wastewater and sewage sludge treatment and disposal, and
- The project site is located within one mile of an EJ Population (or in the case of projects exceeding an ENF threshold for air, within five miles of an EJ Population).

In the ENF Certificate for the Landfill dated August 5, 2016, the EEA states: “[t]he project, as presented in the ENF, does not exceed review thresholds that trigger implementation of the EEA EJ Policy. Regardless, the ENF identified six census block groups designated as EJ communities that are located within one mile of the project and Wheelabrator provided outreach consistent with the spirit and intent of the enhanced public participation provisions of the EJ Policy.”

As discussed in the Introduction and Background, Section I.A above, MassDEP provided additional opportunities for public participation, extended the public comment period, distributed information and a copy of the Provisional Decision through its website, and placed certain Project documents on file at the Saugus Public Library and the Revere Public Library. MassDEP also sent emails to Interested Persons from time to time, to keep the public apprised regarding the Application. MassDEP continues to maintain a list of Interested Persons for the Project.

See also the Response to Comment 17, below, for further information on the public process provided by the Department for this Application.

Comment 15:

Several commenters expressed concern about WSI’s compliance history, noting that several reportable releases have occurred at the site, which commenters suggest shows a pattern of poor environmental compliance and management. Some commenters also noted that in 2011 WSI paid the then-largest environmental settlement in the history of Massachusetts.

MassDEP Response:

The requirements of the Massachusetts Contingency Plan (MCP) at 310 CMR 40.0000 set forth a process for reporting, responding and cleanup of releases of oil and hazardous materials. MassDEP notes that the notification of a release alone does not constitute a violation. The MCP program is designed to ensure appropriate response measures are taken to clean up such spills. Of the nine notifications reported under the MCP that are related to WSI, only one is associated with the Landfill and all of these releases have reached a Permanent Solution under the MCP.

In 2011, through a settlement with the Massachusetts Attorney General’s Office, WSI agreed to pay \$7.5 million to resolve alleged noncompliance at three WTE facilities that it operates. The resolution was designed to bring those facilities back into compliance and, as a result, WSI hired an independent environmental auditor to monitor the company’s compliance with environmental regulations for three years thereafter.

Comment 16:

The Landfill was site assigned in 1974 for use as a “Sanitary Landfill Dump.” The proposed expansion was not discussed in the 1974 Site Assignment, nor were many of the changes in

operation and expansions that have occurred since 1974. As such, the existing Site Assignment is not valid. In addition, some commenters assert that the 1974 site assignment does not allow for the disposal of ash. Other commenters assert that the proposed project is a modification to the existing site assignment.

MassDEP Response:

MassDEP's understanding of the regulatory history is that (1) the 1974 document referenced was issued in response to an application filed by MDCC for a lateral expansion of the former Saugus landfill, (2) the Commonwealth, however, did not allow that locally-approved expansion project to proceed. Furthermore, under the regulations in effect at that time, such dumping grounds were site assigned for the disposal of rubbish, and "ash" was specifically included in the regulatory definition of the term "rubbish," and (3) the 1974 document referenced includes, also, an annual license issued by the Saugus Board of Health for the sanitary landfill at the site, and the Saugus Board of Health has continued to issue such annual licenses to this day.

As discussed above in the Introduction and Background, Section I.C, WSI or Resco has operated a solid waste combustion facility and ash landfill in Saugus since 1975. Prior to 1975, MDCC operated a sanitary landfill at the site pursuant to a modified site assignment issued on July 18, 1963, by the Massachusetts Department of Public Health pursuant to M.G.L. c. 111, § 150A. Prior to July 18, 1963, the site reportedly is considered to have been the subject of a grandfathered site assignment under St. 1955, c. 310, § 2, as a site utilized for solid waste disposal purposes prior to July 25, 1955. Upon information and belief, since the 1960s, the Saugus Board of Health has consistently issued annual licenses for operation of the landfill. See also, Wheelabrator Land Resources, Inc. v. Town of Saugus, 13 LCR 498, Misc. Case No. 05-309676 (2005) (wherein the Town of Saugus, by and through its legal counsel, specifically stipulated on July 6, 2005, in an Agreed Statement of Facts filed with the court, that "The Landfill has a valid site assignment pursuant to M.G.L. c. 111, § 150A. (Ver. Compl., ¶121)."

Moreover, M.G.L. c. 111, § 150A requires a site assignment "for a new facility or the expansion of an existing facility" as a landfill. However, § 150A does not define the terms "new facility or expansion of an existing facility." Pursuant to its authority, MassDEP has defined "expand a site" to mean "to move a solid waste facility's operation to a previously unassigned site that is contiguous to the original site or to modify a solid waste facility's operation causing it to exceed any capacity or total volume limit stated in its current site assignment." 310 CMR 16.02. Here, WSI does not propose to "expand a site," as "expansion" is defined under the regulation, because the project does not entail either moving the landfill's "operation to a previously unassigned site" or exceeding "any capacity or total volume limit stated in its current site assignment."

Furthermore, WSI does not need to obtain a major modification to its site assignment under 310 CMR 16.22(2) because the proposed project does not constitute a "vertical expansion beyond the limits of an approved plan." Here, the vertical limit established by the Consent

Order dated June 29, 1989, as amended, and the approved FEP, is 50 feet above mean sea level (MSL). As discussed in the Application, WSI proposes to reduce the final gradient of the ash landfill within Phases I and II from five percent (5%) to two percent (2%). As designed, Phases I and II are to be graded as a series of low ridges and valleys. To achieve the reduced gradient, the elevation of the bottom of each valley (Valleys 1 and 2) will be raised while maintaining the previously approved elevation of the ridges. Because the peak elevation of the completed landfill will remain at 50 feet above MSL as previously approved by MassDEP, the project does not constitute a vertical expansion for purposes of 310 CMR 16.22(2).

Comment 17:

Several commenters requested to extend the public comment period and one commenter requested an additional public hearing to be held in the City of Revere on the Provisional Decision.

MassDEP Response:

The Partial Valley Fill Project falls within the designation of a major modification to a Landfill under the Solid Waste Regulations at 310 CMR 19.000. As such, WSI submitted a major modification application, permit category BWP SW11. MassDEP's review of major modifications to a Landfill is governed by 310 CMR 19.033. This regulation allows MassDEP to either issue its permit decision directly or to issue a provisional decision to provide the opportunity for any interested person to submit written comments on MassDEP's provisional decision. No public comment period is required by the regulations for this category of permit. In addition, no public hearing is required or expressly authorized by the Regulations.

Recognizing that there was significant interest in the Partial Valley Fill Project, based in part on the MEPA process for the project in 2016, MassDEP issued a memorandum on May 5, 2107, to inform interested persons about the Public Review and Comment Opportunities available. The memorandum included the following information:

1. As authorized by MassDEP's regulations, MassDEP decided that rather than issue the final decision directly, MassDEP would issue a provisional decision, to provide the public opportunity to review and comment on the provisional decision before it becomes final. As noted in the memorandum, MassDEP indicated that the comment period would be at least twenty-one (21) days from issuance of the provisional decision, consistent with the regulations.
2. Although the regulation at 310 CMR 19.033 does not expressly provide for a public hearing, MassDEP announced that it would hold a public hearing solely for the purpose of accepting oral and written comments on the provisional decision.
3. MassDEP has sent emails to the Interested Persons list we are maintaining for the Project, to let them know the availability of documents relating to WSI's Partial Valley Fill project. The documents have been timely posted on the MassDEP web page.

As noted in those emails and on the web page, the documents have also been made available through WSI's web page and at the Saugus and Revere public libraries.

4. MassDEP established a dedicated email box for the Project to make it easier for the public to comment.

Shortly after issuing the Provisional Decision for Comment, MassDEP received several requests to extend the comment period to January 12, 2018 and a request to hold an additional public hearing in Revere.

MassDEP has responsibilities to both the public and the regulated community which MassDEP takes seriously. MassDEP notes that Interested Persons:

- Had been aware of MassDEP's plan and schedule for public participation since May 5, 2017;
- Had been informed about the Project since the 2016 MEPA process;
- Had access to the initial application since May 5, 2017; and
- Had access to the supplemental information since October 17, 2017.

After due consideration of the requests, MassDEP extended the public comment period to January 12, 2018 (an additional six weeks). Also, MassDEP determined that a single public hearing was appropriate and consistent with past practices on other permit applications. MassDEP held the Public Hearing, for the purpose of taking public comment orally and in writing, on November 30, 2017 in the Saugus High School Auditorium on Pierce Memorial Drive in Saugus, MA. MassDEP also provided notice that written comments could be submitted to MassDEP, by postal mail, delivery or email.

Comment 18:

Several commenters supported the Provisional Decision and noted appreciation for MassDEP's transparent review process and the opportunities for public input on the proposed project. Other commenters stated that they trust MassDEP has conducted a thorough and thoughtful review of the project.

MassDEP Response:

MassDEP acknowledges these comments.

Comment 19:

One commenter questioned why the ash could not be transferred off-site utilizing rail, while a second commenter, expressed that on-site disposal of ash is preferred over transporting the ash to off-site disposal facilities.

SAUGUS–Wheelabrator Saugus, Inc./Ash Monofill Landfill

BWP SW11/Revised FEP-Partial Valley Fill Project (Transmittal Number: X271439)

MassDEP Response:

The transfer of ash from the WTE facility utilizing rail was not proposed in this Application. MassDEP's role regarding the proposed Landfill project is to review the subject Application in accordance with the applicable regulations.

Comment 20:

One commenter questioned whether the Lynn Wastewater Treatment plant was able to treat the leachate from the Landfill.

MassDEP Response:

The Lynn Water and Sewer Commission (LWSC) is permitted to discharge treated effluent to Lynn Harbor after treatment at the LWSC treatment works in accordance with the provisions of a National Pollution Discharge Elimination System (NPDES) Permit. LWSC also, through a municipal agreement, accepts and treats wastewater from the Town of Saugus, and in turn, industrial wastewater from the Wheelabrator Saugus Ash Landfill.

The LWSC's NPDES permit requires the LWSC to implement an Industrial Pretreatment Program (IPP), which includes permitting of significant industrial users, and inspection, surveillance, and monitoring of these users. As an element of this program, the LWSC is required to ensure that the applicable National Categorical Pretreatment Standards, as set forth in federal regulations at 40 CFR 405 et seq., are enforced. The Wheelabrator Saugus Ash Landfill is assigned the status of a significant industrial user, and accordingly is required to operate its facility in compliance with the terms and conditions of the LWSC sewer connection permit issued to the facility.

Comment 21:

One commenter stated that the proposed project should be denied because it does not comply with several state policies and regulations, including:

- The Wetlands Protection Act;
- The Massachusetts Surface Water Quality Standards; and
- The Chapter 91 Waterways Permit.

MassDEP Response:

MassDEP's c. 91 Program has also reviewed the permit application and determined that the project does not require a new license or permit. With respect to water quality monitoring, as discussed previously in the Responses to Comments 2 and 6, leachate and stormwater from uncapped portions of the landfill are managed by the leachate collection system and discharged back to the WTE facility or to the Lynn Water and Sewer Commission wastewater treatment facility. Stormwater from capped portions of the landfill are managed and treated through the existing stormwater management system and discharged to a lined sedimentation basin designed to meet a 100-year, 24-hour storm. As explained above, discharges from the sedimentation basin are covered under the terms and conditions of an EPA multi-sector

stormwater permit. EPA last conducted a multi-sector stormwater permit inspection in 2014 and did not identify any permit violations.

Comment 22:

One commenter raised concern that the Provisional Decision on the Application appeared to be “open-ended” and will not include fixed limitations on the duration of operation or the height of the Landfill.

MassDEP Response:

As discussed in the Introduction and Background, Section I.D above, the length of time that a landfill may operate in Massachusetts is not limited by regulation. The operating life of a landfill is typically based upon the amount of air space available to be filled with waste in accordance with Department approvals. The vertical limit of the Landfill remains 50 feet above MSL. As discussed above, any change to the maximum height elevation for the Landfill of 50 feet above MSL falls within the regulatory definition of a “vertical expansion” and therefore would require a new site assignment (i.e., a Major Modification of the Site Assignment) from the Saugus Board of Health pursuant to 310 CMR 16.22(2).

Comment 23:

One commenter raised concerns about equal protection under Article 97 of the Massachusetts Constitution.

MassDEP Response:

Article 97 was approved and ratified on November 7, 1972, superseding Article 49 of the Articles of Amendment to the Massachusetts Constitution. It provides, in pertinent part, as follows:

The people shall have the right to clean air and water, freedom from excessive and unnecessary noise, and the natural, scenic, historic, and esthetic qualities of their environment; and the protection of the people in their right to the conservation, development and utilization of the agricultural, mineral, forest, water, air and other natural resources is hereby declared to be a public purpose.

The general court shall have the power to enact legislation necessary or expedient to protect such rights.

In the furtherance of the foregoing powers, the general court shall have the power to provide for the taking, upon payment of just compensation therefor, or for the acquisition by purchase or otherwise, of lands and easements or such other interests therein as may be deemed necessary to accomplish these purposes.

Lands and easements taken or acquired for such purposes shall not be used for other purposes or otherwise disposed of except by laws enacted by a two thirds vote, taken by yeas and nays, of each branch of the general court.

Article 97 provides authorization for the state and local governments to utilize their traditional Police Powers to protect and promote the environment in general. MassDEP regulations are protective of human health and the environment and each landfill, no matter where it is located, is required to meet the standards established by the applicable statutes and regulations. Based on review of the Application by MassDEP staff, WSI's project meets these requirements. Article 97 does not prevent MassDEP from issuing a permit decision that is consistent with the applicable statutes and regulations.

IV. CONCLUSION

After review of all comments received, MassDEP has made a final decision to issue the Partial Valley Fill permit. MassDEP has prepared this document, known as the Response to Comments or RTC, which describes and addresses any significant comments on the Provisional Decision and additional comments raised during the comment period and provides MassDEP's responses. MassDEP's decision-making process has benefitted from the review of the Public Comments and additional information submitted.

In consideration of the Public Comments, MassDEP has made the following change to the Provisional Decision:

1. The Final Decision requires WSI to submit, within thirty (30) days of the effective date of the Final Decision, an update to its Operation and Maintenance Plan to include provisions for backup power for the existing leachate collection and treatment system.

The Draft Application Review Fact Sheet has also been updated to reflect the Public Comment process. Therefore, MassDEP is issuing the Final Decision today, simultaneously with this RTC.

On April 9, 2018, MassDEP issued the Eleventh Amendment to the Consent Order to facilitate the proposed changes to the final slope in the FEP and to require WSI to fund up to \$2,500,000 for engineering services to create a Phase IV Remedy Implementation Plan for the former Dewey Daggett Landfill site located immediately south of the WSI property, or other work related to the preservation, restoration or conservation of the Rumney Marshes Area of Environmental Concern.

The Final Decision, RTC and Amendment to the Consent Order will be available on MassDEP's website. The current link to the website is at: <https://www.mass.gov/service-details/wheelabrator-saugus-inc-ash-landfill-saugus>. If you encounter any access issues, please contact us for assistance, by using the email or phone number below.

MassDEP is providing access to the Final Decision, Fact Sheet and the RTC to Commenters and the Interested Persons List. A hard copy of the Public Comments received by MassDEP is available for review at the MassDEP Northeast Regional Office. Copies of the Final Decision also

SAUGUS–Wheelabrator Saugus, Inc./Ash Monofill Landfill

BWP SW11/Revised FEP-Partial Valley Fill Project (Transmittal Number: X271439)

may be obtained by writing or calling MassDEP between the hours of 8:45 AM and 5:00 PM, Monday through Friday, excluding holidays:

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