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# MIRICK O'CONNELL

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A T T O R N E Y S   A T   L A W

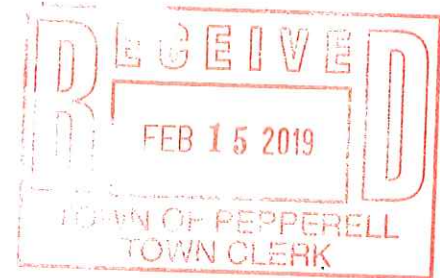
David K. McCay  
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**NOTICE OF FILING OF AMENDED COMPLAINT  
IN AN APPEAL PURSUANT TO M.G.L. c. 40A, § 17**

February 15, 2019

**VIA HAND DELIVERY**

Jeanne M. Survell,  
Town Clerk  
1 Main Street  
Pepperell, MA 01463



Re: Board of Selectmen of Town of Pepperell v. Zoning Board of Appeals of the  
Town of Pepperell, et al.  
Land Court, Case No. 19MISC00081

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Dear Clerk Survell:

Notice is hereby given of the filing of an Amended Complaint by the Board of Selectmen of the Town of Pepperell in the above-referenced Land Court action. The Amended Complaint is an appeal of the Decision of the Pepperell Zoning Board of Appeals filed with the Town Clerk on January 30, 2019 re Application No. 2018-09. The Decision grants the appeal of Mass Composting Group, Inc. ("MCGI") to overturn the Pepperell Building Inspector's October 9, 2018 Determination that MCGI's proposed Soil Reclamation Facility at 161 Nashua Road is a prohibited Commercial Dumping Ground under the Pepperell Zoning Bylaw. A copy of the Amended Complaint is enclosed for your filing.

Very truly yours,

A handwritten signature in blue ink that reads "David K. McCay".

David K. McCay

DKM/ljg

Enclosure

cc: Andrew MacLean, Town Administrator

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MIRICK, O'CONNELL, DEMALLIE & LOUGEE, LLP

WORCESTER | WESTBOROUGH | BOSTON

www.mirickoconnell.com

COMMONWEALTH OF MASSACHUSETTS

MIDDLESEX, SS.

LAND COURT DEPARTMENT  
OF THE TRIAL COURT  
CIVIL ACTION NO. 19MISC000081

BOARD OF SELECTMEN FOR THE TOWN  
OF PEPPERELL,

Plaintiff

v.

ZONING BOARD OF APPEALS FOR THE  
TOWN OF PEPPERELL, and MARK G.  
WALSH, ANNETTE R. MCLEAN, SEAN E.  
MCCAFFERY, and ALAN LEO, JR., in  
their capacity as members of the ZONING  
BOARD OF APPEALS, and MASS  
COMPOSTING GROUP, INC.,

Defendants

**AMENDED COMPLAINT**

**I. INTRODUCTION**

1. This is an action brought pursuant to M.G.L. c. 40A, § 17 to appeal the decision of the Pepperell Zoning Board of Appeals ("ZBA") dated January 16, 2019 and filed with the Pepperell Town Clerk on January 30, 2019 ("Decision"). A certified copy of the Decision is attached as Exhibit 1. In the Decision, the ZBA granted the appeal by Mass Composting Group, Inc. ("MCGI") of the Pepperell Building Inspector's October 9, 2018 zoning determination. The Building Inspector determined that MCGI's June 28, 2018 Proposal for a Soil Reclamation Facility at 161 Nashua Road, Pepperell, Massachusetts ("Proposal") was a prohibited "Commercial Dumping Ground" under the Pepperell Zoning Bylaw. His Determination was based upon his review of the Proposal, and a 1996 Land Court Decision and Judgment involving MCGI, the same property and the same provision of the Pepperell Zoning Bylaw. Neglecting to review either the Proposal itself or the 1996 Land Court Decision and

Filed and received in the office of the Pepperell Town Clerk on Friday, February 15, 2019  
at 10:35AM

Judgment, the ZBA erroneously reversed the Building Inspector's Determination. The Board of Selectmen contend that the Building Inspector's Determination was correct and within his discretion, and that the ZBA's Decision exceeds the ZBA's authority, is erroneous in law, is arbitrary and capricious, and that it should be annulled.

## II. JURISDICTION

2. The Land Court has jurisdiction in this action pursuant to M.G.L. c. 40A, § 17, M.G.L. c. 185, § 1(p) and M.G.L. c. 231A, § 1.

## III. THE PROPERTY

3. The property at issue is located at 161 Nashua Road, Pepperell ("Property"). It is approximately 49 acres and is located in the "Industrial" zoning district.

4. The Property abuts residential homes in the "Recreation Residence" zoning district to north, west and south.

5. The Property abuts and is partially located within the Well Protection Zone (WPZ) overlay district.

## IV. THE PARTIES

6. The Plaintiff, the Board of Selectmen, is the duly-authorized executive board of the Town of Pepperell. The Board of Selectmen has a principal place of business at 1 Main Street, Pepperell, Massachusetts.

7. Pursuant to M.G.L. c. 40A, §17, the Board of Selectmen has standing to appeal the ZBA's Decision as a "municipal officer or board."

8. The Defendant, ZBA is the duly-authorized zoning board of appeals for the Town of Pepperell pursuant to M.G.L. c. 40A, § 12 and the Pepperell Zoning Bylaw, § 9210. The ZBA has a principal place of business at 1 Main Street, Pepperell, Massachusetts.

9. The ZBA is authorized to hear appeals of zoning determinations by the Building Inspector pursuant to M.G.L. c. 40A, §§ 13 and 14 and the Pepperell Zoning Bylaw, § 9223.

10. Defendant, Mark G. Walsh, Chairman of the ZBA, resides at 53 Shattuck Street, Pepperell, Massachusetts. At all times material hereto, Mr. Walsh was a duly-appointed member of the ZBA and participated with respect to the public hearing and vote on the Decision.

11. Defendant, Annette R. McLean, Clerk of the ZBA, resides at 5 Brown Street, #751, Pepperell, Massachusetts. At all times material hereto, Ms. McLean was a duly-appointed member of the ZBA and participated with respect to the public hearing and vote on the Decision.

12. Defendant, Sean E. McCaffery, Member of the ZBA, resides at 44 Hadley Road, Pepperell, Massachusetts. At all times material hereto, Mr. McCaffery was a duly-appointed member of the ZBA and participated with respect to the public hearing and vote on the Decision.

13. Defendant, Alan Leao, Jr., Member of the ZBA, resides at 14 Main Street, Pepperell, Massachusetts. At all times material hereto, Mr. Leao was a duly-appointed member of the ZBA and participated with respect to the public hearing on the Decision.

14. The Defendant, MCGI, is a Massachusetts corporation with a principal place of business at 163 Nashua Road, Pepperell, Massachusetts.

## V. FACTS

### A. MCGI's Proposed Soil Reclamation Facility

15. On June 28, 2018, MCGI submitted to the Town through its Town Administrator MCGI's Proposal for a Soil Reclamation Facility at the Property. The Proposal is attached as Exhibit 2.

16. The Proposal included MCGI's proposed Soil Management Plan and indicated that it was undertaken pursuant to the Massachusetts Department of Environmental Protection

("MassDEP") Interim Policy on the Re-Use of Soil for Large Reclamation Projects, Policy #COMM-15-01 ("Interim Policy"), and MassDEP's Similar Soils Policy, Policy #WSC-13-500.

17. Under MassDEP's Interim Policy, MCGI and MassDEP requested that the Town, through the Board of Selectmen, indicate whether the Town would support the Proposal.

18. Under MassDEP's Interim Policy, no local, state or federal requirements that otherwise apply to the proposed Soil Reclamation Facility (such as zoning, fill importation, wetlands, stormwater management, etc.) are eliminated, superseded or otherwise modified. See Exhibit 2A, p.3.

19. Under its Proposal, MCGI proposes to permanently dispose at the Property 4 million cubic yards of soil from unidentified outside locations. See Exhibit 2, p.1.

20. The 4 million cubic yards of soil that MCGI proposes to dispose of at the Property would fill over 285,000 standard, 14-cubic yard dump trucks.

21. The existing "base grade" at the Property, which is a former gravel pit, is approximately 180 feet above sea level. See Grading Study CD002 at Exhibit 2C.

22. Nashua Road, which runs along the western and northern edge of the Property, is approximately 200 feet above sea level. See Grading Study CD002 at Exhibit 2C.

23. Under its Proposal, MCGI would create a massive, artificial hill at the Property consisting of soils unwanted at other sites and piled on the Property to an elevation of 340 feet above sea level. See Grading Study CD002 at Exhibit 2C.

24. The final elevation of 340 feet proposed by MCGI is approximately 160 feet above the existing "base grade" at the Property. See Grading Study CD002 at Exhibit 2C.

25. The final elevation of 340 feet proposed by MCGI is approximately 140 feet above Nashua Road. See Grading Study CD002 at Exhibit 2C.

26. MCGI's proposed Soil Reclamation Facility would fundamentally alter the topography of the Property and the topographical character of the surrounding area.

27. Under the Proposal, the significant majority of the 49-acre Property would be used for the disposal of unwanted soils from other locations in New England. See Grading Study CD001 at Exhibit 2C.

28. Under the Proposal, MCGI indicates that the soil reclamation operation would take place over the course of 7 to 9 years. See Exhibit 2, p.1.

29. If the 4 million cubic yards of soils proposed by MCGI were transported to the Property in 14-cubic yard dump trucks, over 570,000 vehicle trips in each direction would be required.

30. According to the Proposal, "the purpose of the project is to improve current topographic conditions by restoring elevations to pre-mining conditions, install a suitable vegetative cover and prepare the property for future development." See Exhibit 2, p.1.

31. MCGI's proposed Soil Reclamation Facility will not "restore elevations to pre-mining conditions" as claimed by MCGI. The proposed Soil Reclamation Facility will create elevations far exceeding the historical topography of the Property and towering over neighboring properties.

32. MCGI's proposed Soil Reclamation Facility, if completed as proposed, would be nearly identical in appearance to a modern landfill. See Grading Study and Renderings CD003 at Exhibit 2C.

33. MCGI's Proposal does not indicate any proposed "future development" for the Property, except for the proposed Soil Reclamation Facility.

34. At the ZBA hearing, MCGI could not identify any proposed future development at the Property, except for the proposed Soil Reclamation Facility.

35. The size and scope of MCGI's proposed Soil Reclamation Facility far exceeds any soil reclamation necessary to "restore elevations to pre-mining conditions" or "to prepare the property for future development."

36. MCGI's proposed Soil Reclamation Facility at the Property is effectively a 4-million cubic yard landfill for soils unwanted at other sites.

#### **B. The Pepperell Zoning Bylaw**

37. Section 10000 of the Zoning Bylaw defines a "Commercial Dumping Ground" as "*A disposal site for garbage, rubbish, the deposit of demolition materials or other refuse or as a site for a refuse disposal incinerator.*" (Emphasis added).

38. "Refuse" as used in Section 10000 of the Zoning Bylaw includes soils that are unwanted from other sites.

39. MCGI's proposed Soil Reclamation Facility would dispose at the Property soils that are unwanted from other sites.

40. MCGI's proposed Soil Reclamation Facility is a "disposal site" for "refuse."

41. MCGI's proposed Soil Reclamation Facility is a "Commercial Dumping Ground" under § 10000 of the Zoning Bylaw.

42. Under the Zoning Bylaw Table of Principal Uses, Appendix A, a "Commercial Dumping Ground" is not permitted in any zoning district in the Town of Pepperell.

43. MCGI's proposed Soil Reclamation Facility is prohibited as a "Commercial Dumping Ground" under the Zoning Bylaw.

44. Under §3100 of the Zoning Bylaw, “Any building or use of premises not herein expressly permitted is hereby prohibited.”

45. A Soil Reclamation Facility is a “use” under Chapter 40A and the Zoning Bylaw, and such “uses” can be allowed, prohibited or conditioned under Chapter 40A and the Zoning Bylaw.

46. A Soil Reclamation Facility is not included in the Zoning Bylaw Table of Principal Uses.

47. A Soil Reclamation Facility is therefore a prohibited use under §3100 of the Zoning Bylaw.

**C. The Building Inspector’s Determination**

48. On September 24, 2018, the Board of Selectmen requested that the Building Inspector determine whether MCGI’s proposed Soil Reclamation Facility, as described in the Proposal, is a “Commercial Dumping Ground,” and whether a “Commercial Dumping Ground” is an allowed use under the Zoning Bylaw. A copy of the Board of Selectmen’s request for determination is attached as Exhibit 3.

49. On October 9, 2018, the Building Inspector issued his determination finding that the MCGI’s proposed Soil Reclamation Facility, as described in the Proposal, is a “Commercial Dumping Ground” and therefore prohibited under the Zoning Bylaw. A copy of the Building Inspector’s Determination is attached as Exhibit 4.

50. In 1996, the Land Court entered a Decision and Judgment interpreting the definition of a “Commercial Dumping Ground” under the Pepperell Zoning Bylaw and with respect to MCGI and the Property. A copy of the Land Court’s 1996 Decision and Judgment is attached as Exhibit 5.

51. The Land Court found that a:

“dumping ground” implies a repository of unwanted materials. See Webster’s New World Dictionary (“dump” is defined as “to throw away (garbage, rubbish, etc.),” and “ground” as “any particular piece of land; esp. one set aside for a specified purpose”).

See Exhibit 5, p:15.

52. The Building Inspector made his Determination based on his review of the Proposal and the 1996 Land Court Decision and Judgment. See Exhibit 4.

**D. MCGI’s Appeal to the ZBA**

53. MCGI appealed the Building Inspector’s Determination to the ZBA.

54. The ZBA held a hearing on MCGI’s appeal on January 16, 2019.

55. The ZBA failed to consider and review the Proposal upon which the Building Inspector’s Determination was made.

56. The ZBA failed to consider and review the 1996 Land Court Decision and Judgment upon which the Building Inspector’s Determination was made.

57. The ZBA’s Decision was recorded with the Town Clerk on January 30, 2019. See Exhibit 1.

58. Pursuant to M.G.L. c. 40A, § 17, the Board of Selectmen has timely filed its appeal of the ZBA’s Decision.

**COUNT I: Appeal Pursuant to M.G.L. c. 40A, § 17**

59. The Board of Selectmen reallege and incorporate by reference the preceding paragraphs as if fully set forth herein.

60. The Decision of the ZBA exceeded its authority and was erroneous as a matter of law and fact in that:

- a. MCGI's proposed Soil Reclamation Facility is a "Commercial Dumping Ground" under the Zoning Bylaw.
- b. Under the Zoning Bylaw Table of Principal Uses, Appendix A, a "Commercial Dumping Ground" is not permitted in any zoning district in the Town of Pepperell.
- c. MCGI's proposed Soil Reclamation Facility is prohibited as a "Commercial Dumping Ground" under the Zoning Bylaw.
- d. The ZBA failed to consider the character and nature of MCGI's proposed Soil Reclamation Facility.
- e. The ZBA abused its discretion by failing to consider or even review the Proposal upon which the Building Inspector made his Determination.
- f. The ZBA abused its discretion by failing to consider or even review the 1996 Land Court Decision and Judgment upon which the Building Inspector made his Determination.

61. The Decision of the ZBA is unreasonable, arbitrary, capricious and/or based upon legally untenable grounds.

**COUNT II: Declaratory Judgment**

62. The Board of Selectmen reallege and incorporate by reference the preceding paragraphs as if fully set forth herein.

63. An actual controversy exists between the Board of Selectmen and MCGI as to whether a Soil Reclamation Facility is an allowed use under the Zoning Bylaw.

64. MCGI appears to suggest that its proposed Soil Reclamation Facility is an allowed use or is somehow otherwise not subject to the Zoning Bylaw.

65. The Board of Selectmen asserts that, under §3100 of the Zoning Bylaw, "Any building or use of premises not herein expressly permitted is hereby prohibited."

66. The Board of Selectmen further asserts that a Soil Reclamation Facility is a "use" under Chapter 40A and the Zoning Bylaw, that a Soil Reclamation Facility is not listed in the Zoning Bylaw Table of Principal Uses, and that a Soil Reclamation Facility is therefore a prohibited use under §3100 of the Zoning Bylaw.

67. As a result, a dispute exists between the Board of Selectmen and MCGI as to whether a Soil Reclamation is a prohibited use under the Zoning Bylaw.

68. The Board of Selectmen is entitled to a declaratory judgment pursuant to G.L. c. 231A.

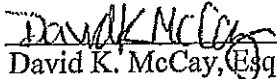
#### **RELIEF REQUESTED**

WHEREFORE, the Board of Selectmen for the Town of Pepperell respectfully requests that the Court:

1. Hear all relevant evidence and determine the facts;
2. Determine and adjudge that the Decision of the Pepperell Zoning Board of Appeals was both arbitrary and capricious and an abuse of discretion;
3. Determine and adjudge that the Decision of the Pepperell Zoning Board of Appeals was erroneous in law and fact and exceeded the ZBA's authority;
4. Annul the Decision of the Pepperell Zoning Board of Appeals; and
5. Declare that, as a matter of law, a Soil Reclamation Facility as proposed by MCGI in the Proposal, is a prohibited use under the Pepperell Zoning Bylaw.

THE BOARD OF SELECTMEN FOR THE  
TOWN OF PEPPERELL

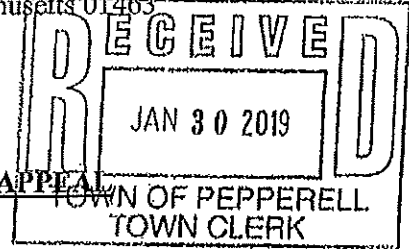
By its attorneys,

  
David K. McCay, Esq., BBO #646921  
Catherine G. Curley, Esq., BBO #687568  
Mirick, O'Connell, DeMallie & Lougee, LLP  
1800 West Park Drive, Suite 400  
Westborough, MA 01581-3926  
Phone: (508) 791-8500  
Fax: (508) 983-6273

Dated: February 15, 2019



Town of Pepperell  
BOARD OF APPEALS  
One Main Street  
Pepperell, Massachusetts 01463



**NOTICE OF DECISION: ADMINISTRATIVE APPEAL**

ZBA File No: 2018-09

Notice is hereby given that a Zoning Board of Appeals Administrative Appeal has been **granted**:

**To:** Mass Composting Group, Inc.

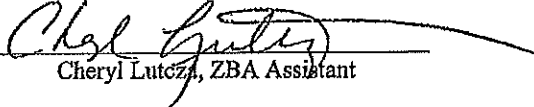
**For:** Administrative Appeal to Overturn Building Inspector determination

**Property Located at:** 161 Nashua Road (located at 141-163 Nashua Road), as shown on Assessor's Map 6 as Parcel 20-0.

**Owned by:** Mass Composting Group, Inc.

This Decision of the Zoning Board of Appeals is on file with the papers on this matter in the office of the Town Clerk. **Certified this the 30<sup>th</sup> day of January 2019:**

Zoning Board of Appeals:

  
Cheryl Lutcz, ZBA Assistant

**RIGHT TO APPEAL:**


Appeals to this Decision are to the Court pursuant to the M.G.L., Chapter 40A, Section 17, and must be taken within twenty (20) days of the filing of this Decision with the Town Clerk.

**TOWN CLERK CERTIFICATION:**

I certify no appeal has been received within twenty (20) days of the filing of this notice in my office, or that if an appeal has been filed it has been dismissed or denied.

\_\_\_\_\_  
Jeanne M. Survell, Town Clerk

TRUE COPY ATTEST

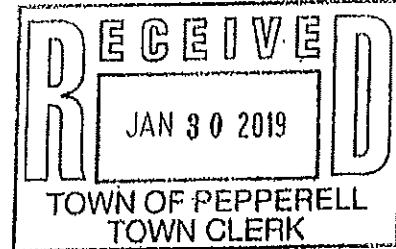
  
Town Clerk

Town of Pepperell ZBA Decision No: 2018-09-Administrative Appeal: 161 Nashua Road



*Town of Pepperell*  
**BOARD OF APPEALS**  
One Main Street  
Pepperell, Massachusetts 01463

**DECISION**



**APPLICATION #:** 2018-09

**APPLICANT/APPELLANT:** Mass Composting Group, Inc.

**OWNER OF PROPERTY:** Mass Composting Group, Inc.

**LOCATION OF PROPERTY:** 161 Nashua Road (located at 141-163 Nashua Road), as shown on Assessor's Map 6 as Parcel 20-0.

**RELIEF REQUESTED:** Administrative Appeal to Overturn Building Inspector determination

**DECISION OF BOARD:** Granted

**DATE OF DECISION:** January 16, 2019

**STATEMENT OF FACTS:**

Application submitted to Town Clerk: November 19, 2018

Cited Section(s) of the Zoning Chapter of the Code of the Town of Pepperell and any other applicable Zoning Law: 9000, 9200 (9223) and 10,000 Appendix A and M.G.L., Chapter 40A, Sections 8 and 15.

Applications copied to the Assessor's Office, Building Inspector, Planning Board, Conservation Commission, Pepperell Police Department, Pepperell Fire Department, DPW Director/Town Engineer, Highway Department, Board of Health, Water Department, Sewer Department, Communications Director, Treasurer/Collector, Historical Commission and Town Counsel: November 21, 2018.

Dates of Published Notice of Public Hearing: December 28, 2018 and January 4, 2019 issues of the "Nashoba Valley Voice".

Notification of parties in Interest: Mailed Notice of Public Hearing to abutters and to the abutting towns of Groton, MA; Townsend, MA; Dunstable, MA; Brookline, NH; Hollis, NH; and Nashua, NH on: December 18, 2018

Date of Public Hearing: January 16, 2019

Board of Appeals Members present at Public Hearing of January 16, 2019: Mark Walsh, Annette McLean, Sean McCaffery and Alan Leao, Jr.

Also present: David Doneski (Town Counsel) and Cheryl Lutcza (Assistant to Zoning Board of Appeals).

**Town of Pepperell ZBA Decision No: 2018-09-Administrative Appeal: 161 Nashua Road**

**CONTENTS OF TOTAL APPLICATION:**

Exhibit A:	Certified List of Abutters (Pepperell) – October 24, 2018
Exhibit B:	New Application Memo to ZBA & Town Counsel – November 21, 2018
Exhibit C:	New Application Memo to Town Boards/Departments – November 21, 2018
Exhibit D:	Certified List of Abutters (Dunstable) – December 5, 2018
Exhibit E:	Agenda (preliminary) – January 16, 2019
Exhibit F:	Memo to ZBA with Dunstable Abutter's List – December 10, 2018
Exhibit G:	Memo to Town Departments with Dunstable Abutter's List – December 10, 2018
Exhibit H:	Response from Treasurer/Collector – November 21, 2018
Exhibit I:	Response from Highway Department – November 21, 2018
Exhibit J:	Extension of Time Letter from Deschenes and Farrell, P.C. – December 7, 2018
Exhibit K:	Notice of Public Hearing/Legal Notice
Exhibit L:	Revised Agenda – January 16, 2019
Exhibit M:	Response from DPW Director/Town Engineer – November 21, 2018
Exhibit N:	Response from Historical Commission – December 21, 2018
Exhibit O:	Hearing and Fees Letter to Applicant – January 1, 2019
Exhibit P:	Response Memo to ZBA from C. Luteza – January 7, 2019
Exhibit Q:	Legal Notice Copy from Nashoba Valley Voice – December 28, 2018
Exhibit R:	Legal Notice Copy from Nashoba Valley Voice – January 4, 2019
Exhibit S:	Hearing/Meeting Attendance Sheet – January 16, 2019

**FEES:**

Applicant(s) paid to the Town of Pepperell (1) a filing fee of \$115.00; (2) a postage fee in the amount of \$60.72, to notify Parties in Interest of the Public Hearing and Decision; and (3) a fee to the "Nashoba Valley Voice" in the amount of \$382.40, for the legal advertising of the public notices in the December 28, 2018 and January 4, 2019 publications.

**STATEMENT OF CASE:**

The Zoning Board of Appeals conducted a public hearing on January 16, 2019, regarding an **ADMINISTRATIVE APPEAL** submitted to the Zoning Board of Appeals by Attorney Douglas C. Deschenes, of Deschenes and Farrell, P.C., on behalf of Mass Composting Group, Inc. (the Appellant). Appellant is seeking relief from the Town of Pepperell Zoning Board of Appeals under Sections 9000, 9200 (9223), and 10,000 (Appendix A) of the Town of Pepperell Zoning-By-Law and M.G.L. Chapter 40A, Sections 8 and 15. Appellant is appealing the determination of the Pepperell Building Inspector in his letter dated October 9, 2018, in which he determined that Mass Composting Group's proposed use of the property at 161 Nashua Road for a soil reclamation project would qualify as a Commercial Dumping Ground because the proposed operation would use the property as a depository of otherwise unwanted or unusable soil removed from remote construction projects, for no purpose other than the permanent storage of the material, and that under the Zoning Bylaw's Table of Use Regulations, the proposed use is prohibited at 161 Nashua Road. The Building Inspector's determination referred to the proposed use as described in a June 28, 2018 letter and proposal document submitted to the Town by Terra Environmental, LLC. Subject property is known as 161 Nashua Road and located at 141-163 Nashua Road, Pepperell, MA, as shown on Assessor's Map 6 as Parcel 20-0.

Appellant submitted certified check payments for the following fees associated with the ZBA Application:

- Postage Fee of \$60.72 (payable to the Town of Pepperell)
- Legal Advertising Fee of \$382.40 (payable to the Nashoba Valley Voice)

**Town of Pepperell ZBA Decision No: 2018-09-Administrative Appeal: 161 Nashua Road**

**STATEMENT OF CASE (continued):**

Attorney Douglas C. Deschenes was present at the hearing and addressed the Board regarding the relief being requested. He offered testimony from Charles Myette, a licensed site professional (LSP), and Phil Peterson of Terra Environmental, also a LSP. Attorney Deschenes stated that the Appellant was not appealing that portion of the Building Inspector's determination that commercial dumping grounds are not an allowed use under the Zoning Bylaw. Representatives of the subject property owner, Mass Composting Group, Inc., were present. Abutters and/or members of the public were present at the hearing. Motion was made, and all Board Members concurred, to **grant** the requested relief.

Details of the hearing are available in the Zoning Board of Appeals Meeting Minutes of: January 16, 2019.

**FINDINGS:**

1. The subject property is known as 161 Nashua Road and located at 141-163 Nashua Road, Pepperell, MA, as shown on Assessor's Map 6 as Parcel 20-0.
2. The proposed use is not as a disposal site for garbage, rubbish, the deposit of demolition materials or other refuse or as a site for a refuse disposal incinerator, and therefore not a commercial dumping ground.
3. Based on the Appellant's presentation the proposed use, as described, is a reclamation of an existing quarry area (gravel pit) proposed under the Department of Environmental Protection (DEP) Administrative Consent Order program for reclamation facilities and the DEP's Interim Policy on Soil Re-use. Technical Witnesses (Licensed Soil Professionals: Charles Myette and Phil Peterson) offered testimony in support of Appellant's position and described DEP's soil reclamation program under the Interim Policy on the Re-Use of Soil for Large Reclamation Projects (Policy # Comm-15-01) and Similar Soils Provision Guidance (WSC #13-500). Mr. Peterson stated that he prepared the June 28, 2018 proposal.

**CONCLUSION:**

On the basis of its findings, the Zoning Board of Appeals **granted** the requested relief from the determination of the Pepperell Building Inspector in his letter dated October 9, 2018, in which he determined that Mass Composting Group's proposed use of the property at 161 Nashua Road for a soil reclamation project would qualify as a Commercial Dumping Ground, and therefore reversed the Building Inspector's determination.

**DECISION:**

Based on the foregoing findings and conclusions, the Zoning Board of Appeals **grants** the requested relief, and reverses the determination of the Pepperell Building Inspector in his letter dated October 9, 2018 that Mass Composting Group's proposed use of the property at 161 Nashua Road for a soil reclamation project would qualify as a Commercial Dumping Ground.

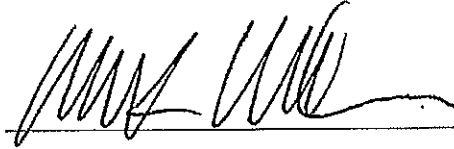
**So decided on this 16<sup>th</sup> day of January 2019 by roll call vote as listed:**

Mark Walsh:           Aye  
Annette McLean:       Aye  
Sean McCaffery:       Aye

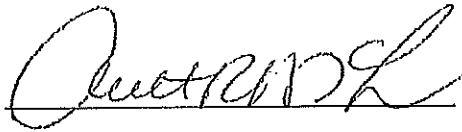
**Town of Pepperell ZBA Decision No: 2018-09-Administrative Appeal: 161 Nashua Road**

**CERTIFICATIONS:**

We, the undersigned members of the Board of Appeals of the Town of Pepperell, certify that we attended and participated in all of the hearings, the decision and the order of the above matter, that said hearings and decision were made at public meetings of the Board and that we made the forgoing decision with the undersigned members voting by role call vote.



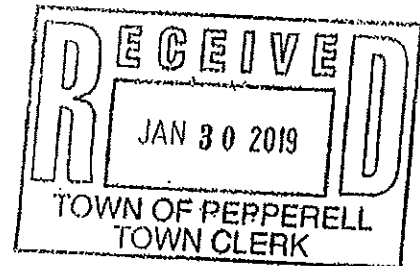
Mark Walsh



Annette McLean

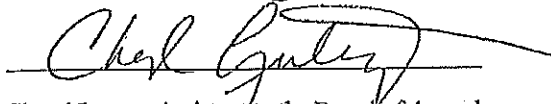


Sean McCaffery



**ASSISTANT TO THE BOARD OF APPEALS:**

A copy of this decision was transmitted to the Town Clerk on: January 30, 2019



Cheryl Lutzca, Assistant to the Board of Appeals



**TERRA ENVIRONMENTAL, LLC**  
PLANNING | CONSULTING | MANAGEMENT | REMEDIATION

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READING, MA 01867  
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June 28, 2018

Mr. John Moak, Town Administrator  
Town of Pepperell  
1 Main Street,  
Pepperell, MA 01463

**Subject:** Nashua Road Quarry Reclamation Project  
161 Nashua Road Pepperell, MA

Dear Mr. Moak,

On behalf of Mass Composting Group, Inc. (MCGI), TERRA Environmental, LLC is pleased to provide the Town of Pepperell with this letter summarizing the reclamation of the Nashua Road Quarry located at 161 Nashua Road in Pepperell, MA (the "Site"). This letter and attachments summarize our approach for the reclamation of the 50-acre quarry property owned by MCGI.

As discussed with Town officials on December 5, 2017 and as contained in a letter hand delivered on February 11, 2018, the purpose of this reclamation project is to improve current topographic conditions by restoring elevations to pre-mining conditions, install a sustainable vegetative cover and prepare the property for future development. The reclamation project will accept, receive and place similar soils in a manner that is protective of human health, safety and the environment. No waste material of any type or description, including solid waste, will be accepted. As requested by the Town of Pepperell's former Town Administrator and former Town Planner, a Soil Management Plan was prepared describing procedures to evaluate potential soil source sites; monitor and place soils as they are received; conduct inspections of the ongoing operations; and stabilize the Site after soils are received and before the long-term development plans are implemented. A copy of the Soil Management Plan has been included in Attachment C.

It is anticipated that approximately 4-million cubic yards of soil will be received over the course of the Reclamation Project, which should take place over the course of 7 to 9 years. Anticipated sources of soil material include large volumes of excess soil from excavation and construction projects in Massachusetts, as well as qualified soils from Vermont, New Hampshire and Maine. The intended soil material will include native deposits of soil including sand, gravel, organic soils, estuarine deposits, marine sands, glacial till, clay, top soils, and soil/slurry mixtures from foundation installations. Soil intended for reuse in the reclamation operation must meet the Acceptance Criteria established for this location. The derivation of the Acceptance Criteria is based on MassDEP's Similar Soils Policy WSC#-13-500 and Policy #COMM-15-01 (Interim Policy on the Re-Use of Soil for Large Reclamation Projects),

**TERRA ENVIRONMENTAL, LLC**

Massachusetts Contingency Plan (MCP) and any other applicable state and federal regulations. All reclamation soil will be sampled and analyzed under the supervision of a Licensed Site Professional (LSP) prior to acceptance for reuse by the Project.

The Reclamation Project would be undertaken pursuant to MassDEP policies including:

- MassDEP, Policy #COMM-15-01, Final Interim Policy on the Re-use of Soil for Large Reclamation Projects (i.e. quarries, sand and gravel pits), a copy of which is provided in Attachment A.
- MassDEP Similar Soils Policy WSC#-13-500, a copy of which is provided in Attachment B.

MassDEP has developed and utilizes Policy #COMM-15-01 to issue an Administrative Consent Orders (i.e. permit) to Reclamation Project owners and operators as a method to allow reclamation and development of sand pits, gravel pits quarries and other similar underutilized properties. The Administrative Consent Order (ACO) permit will incorporate the methods and procedures to be followed during the management and execution of the reclamation project.

- *MassDEP Policy #COMM-15-01 is implemented pursuant to Section 277 of Chapter 165 of the Acts of 2014, M.G.L. c. 21E, § 6(2) and 310 CMR 40.0000, and M.G.L. c. 111, § 150A3 and 310 CMR 16.00 and 19.000. Section 277 of Chapter 165 of the Acts of 2014 directs the Department to "establish regulations, guidelines, standards or procedures for determining the suitability of soil used as fill material for the reclamation of quarries, sand pits and gravel pits. The regulations, standards or procedures shall ensure the reuse of soil poses no significant risk of harm to health, safety, public welfare or the environment considering the transport, filling operations and the foreseeable future use of the filled land."*

The Reclamation Project will be completed in accordance with a MassDEP issued Administrative Consent Order (ACO) permit that will incorporate the methods and procedures to be followed by MCGI during the management and execution of the Reclamation Project.

MCGI is seeking the Town's support and meaningful input with respect to the Reclamation Project. If the Town provides its support, MCGI is willing to provide the Town a Town-Host Fee of \$0.25 per cubic yard for soils received and accepted at the Site, which should generate approximately \$1,000,000 in revenue for the Town based upon the anticipated approximately 4 million cubic yards of soil. However, this proposed Host Fee will be offered only if the Town provides support of MCGI's proposal within a reasonable period (e.g., 30-45 days).

As discussed above and through other correspondence, on December 5, 2017 representatives from MCGI met with certain Town representatives; and on February 11, 2018, Mr. David Burton, the President of MCGI, met with and distributed a letter describing the Reclamation Project to various Town officials. As of the date of this letter, representatives from the Town of Pepperell have not contacted representatives from MCGI, and/or Mr. David Burton to discuss the project.

Therefore on behalf of MCGI, TERRA Environmental requests a meeting with the Town of Pepperell's Town Administrator and Town Planner as well as the Selectmen at the earliest mutually-convenient date to discuss the Reclamation Project and to answer any questions or respond to any concerns regarding the Reclamation Project.

If you should have any questions or require additional information, please do not hesitate to contact David Burton or myself directly at your convenience.

Respectfully submitted,  
TERRA ENVIRONMENTAL, LLC



Philip M. Peterson, LSP  
Principal Consultant / Manager

ATTACHMENT A: MASSDEP, POLICY #COMM-15-01  
ATTACHMENT B: MASSDEP SIMILAR SOILS POLICY WSC#-13-500.  
ATTACHMENT C: SOIL MANAGEMENT PLAN

CC: PEPPERELL BOARD OF SELECTMEN (6-COPIES)  
MASSDEP – CENTRAL REGIONAL OFFICE (MARK BALDI)  
DAVID BURTON, PRESIDENT (MCGI)

**ATTACHMENT A**  
**MASSDEP, POLICY #COMM-15-01**



Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

## Department of Environmental Protection

One Winter Street Boston, MA 02108 • 617-292-5500

Charles D. Baker  
Governor

Karyn E. Polito  
Lieutenant Governor

Matthew A. Beaton  
Secretary

Martin Suuberg  
Commissioner

# Interim Policy on the Re-Use of Soil for Large Reclamation Projects

## Policy # COMM-15-01

August 28, 2015

### Policy Statement

This Interim Policy provides notice of MassDEP's intent to issue site-specific approvals, in the form of an Administrative Consent Order, to ensure the reuse of large volumes of soil for the reclamation of sand pits, gravel pits and quarries poses no significant risk of harm to health, safety, public welfare or the environment and would not create new releases or threats of releases of oil or hazardous materials.

During the effective period of this policy, MassDEP approval for the filling of sand pits, gravel pits and quarries to which this policy applies will be provided only through Administrative Consent Orders completed by the terms of this policy. Filling operations conducted without MassDEP approval operate at risk of Department enforcement for violations of rules governing solid waste management and oil and/or hazardous material releases.

The use of soil for the reclamation of a quarry, sand pit or gravel pit under the conditions of this policy is considered approved re-use for the purposes of the notification exemption described at 310 CMR 40.0317(13).

### Effective Date

This Interim Policy is effective on August 28, 2015. This Interim Policy will remain in effect until it is specifically rescinded or superseded by MassDEP regulations governing soil fill projects promulgated pursuant to Section 277 of Chapter 165 of the Acts of 2014, M.G.L. c. 21E, Section 6, and M.G.L. c. 111, Section 150A. While such future regulations will likely differ in scope and detail from this Interim Policy, the Department anticipates that regulations and policies developed to implement the final approach will specifically accommodate projects commenced under an Administrative Consent Order issued pursuant to this Interim Policy through the incorporation of transition provisions.

### Authority

This Interim Policy is implemented pursuant to Section 277 of Chapter 165 of the Acts of 2014<sup>1</sup>, M.G.L. c. 21E, § 6<sup>2</sup> and 310 CMR 40.0000, and M.G.L. c. 111, § 150A<sup>3</sup> and 310 CMR 16.00 and 19.000.

Section 277 of Chapter 165 of the Acts of 2014 directs the Department to "*establish regulations, guidelines, standards or procedures for determining the suitability of soil used as fill material for the reclamation of quarries, sand pits and gravel pits. The regulations, standards or procedures shall ensure the reuse of soil poses no significant risk of harm to health, safety, public welfare or the environment considering the transport, filling operations and the foreseeable future use of the filled land.*"

M.G.L. c. 21E, § 6 establishes the Department's authority to "*specify reasonable requirements, applicable to sites and vessels where releases of hazardous material or oil might occur and to activities which might cause, contribute to, or exacerbate a release of hazardous material or oil, to prevent and control, and to counter the effects of, such releases. Such requirements may be prescribed... by order under section nine<sup>4</sup> for specific sites and vessels which the department has determined to... be conducting an activity which poses a threat of release of hazardous material or oil.*"

The placement, dumping, disposing or reuse of soil containing oil and/or hazardous material (OHM) into the environment is a "release" as that term is defined in M.G.L. c. 21E § 2<sup>5</sup>. Such dumping, disposing or unapproved re-use of soil is potentially a notifiable release (310 CMR 40.0300) requiring assessment and, where indicated, remediation. Depending upon site-specific conditions and the nature of the OHM present in the soil, such releases may have significant adverse human health and environmental effects. Examples of such effects include:

<sup>1</sup> <https://malegislature.gov/Laws/SessionLaws/Acts/2014/Chapter165>

<sup>2</sup> <https://malegislature.gov/Laws/GeneralLaws/PartI/TitleII/Chapter21E/Section6>

<sup>3</sup> <https://malegislature.gov/Laws/GeneralLaws/PartI/TitleXVI/Chapter111/Section150A>

<sup>4</sup> <https://malegislature.gov/Laws/GeneralLaws/PartI/TitleII/Chapter21E/Section9>

<sup>5</sup> <https://malegislature.gov/Laws/GeneralLaws/PartI/TitleII/Chapter21E/Section2>

- contamination of the underlying aquifer through leaching of the OHM;
- human exposure through direct contact with the soil or inhalation of vapors or particulates emanating from the soil;
- degradation of wildlife habitats;
- degradation of neighboring properties, wetlands, and waterways through stormwater runoff; and
- exacerbation of localized flooding.

### Applicability

This Interim Policy is applicable to any quarry, gravel pit, or sand pit reclamation project that receives, or plans to receive greater than 100,000 cubic yards of soil for the reclamation/filling of said quarry, gravel pit, or sand pit after August 28, 2015 including:

- Reclamation projects that will begin to receive on site more than 100,000 cubic yards of soil after August 28, 2015;
- Reclamation projects that have commenced physically receiving soil on site on an "at risk" basis prior to August 28, 2015 subject to the regulations, policies and procedures in place prior to August 28, 2015 and which will receive more than 100,000 cubic yards after October 31, 2015;

To be eligible for MassDEP approval pursuant to this Interim Policy, the soil accepted by the quarry, gravel pit or sand pit can contain no more than de minimis quantities of Solid Waste (e.g. Municipal Solid Waste and/or Construction and Demolition Waste) as defined in 310 CMR 16.00 and 310 CMR 19.000.

Soil fill projects to which this policy applies and that are not managed in compliance with this policy may be found to have caused, contributed to, or exacerbated a release of OHM and may be subject to enforcement pursuant to Section 277 of Chapter 165 of the Acts of 2014<sup>6</sup>, M.G.L. c. 21E, § 6<sup>7</sup> and 310 CMR 40.0000, and/or M.G.L. c. 111, § 150A<sup>8</sup> and 310 CMR 16.00 and 19.000.

Fill projects that accept any amount of soil (whether pursuant to this Interim Policy or otherwise) must ensure that the filling does not create new, reportable releases of oil or hazardous materials to the environment pursuant to M.G.L. c. 21E and 310 CMR 40.0000, or will not violate M.G.L. c. 111, section 150A, 310 CMR 16.00, or 310 CMR 19.000.

Nothing in this Interim Policy eliminates, supersedes or otherwise modifies any local, state or federal requirements that apply to the management of soil, including any local, state or federal permits or approvals necessary before placing the soil at the receiving location, including, but not limited to, those related to placement of fill, noise, traffic, dust control, stormwater management, wetlands, groundwater or drinking water source protection.

<sup>6</sup> <https://malegislature.gov/Budget/CurrentBudget>

<sup>7</sup> <https://malegislature.gov/Laws/GeneralLaws/PartI/TitleII/Chapter21E/Section6>

<sup>8</sup> <https://malegislature.gov/Laws/GeneralLaws/PartI/TitleXVII/Chapter111/Section150A>

## **Implementation**

A reclamation project proponent should contact the Regional Director in the MassDEP Regional Office for the region in which the reclamation project is located to initiate the approval process.

In determining whether to issue an Administrative Consent Order to a project proponent for a specific quarry, gravel pit or sand pit reclamation project, MassDEP will review data describing the types and concentrations of OHM contained in the excavated soil proposed to be used for reclamation, data describing the relevant characteristics of the location proposed to receive this soil and the surrounding area, proposed soil management plans, and any other information necessary to ensure the proper handling of the fill material.

As a case-specific approval, the development of an ACO for a reclamation project will necessitate discussions between the Department and the project proponent to identify all the information necessary as a basis for approval. These discussions will likely occur concurrent with the project proponent's discussions with local officials and the development of final soil management plans.

MassDEP will review documentation submitted by project proponents to demonstrate that the appropriate local officials are aware of the project and have been afforded the opportunity for meaningful input. Examples of such documentation may include:

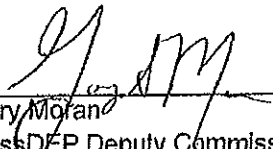
- a copy of any local permit or other approval specific to the use of large volumes of fill material that may be required (municipal approval of an up-to-date reclamation plan for the receiving location, and/or or a municipal permit under an "earth filling" ordinance, and/or any other approval required by a municipality for activities that involve the transportation of soil onto the receiving site); or
- where such local approvals are not required:
  - a copy of any notification to the public in the area surrounding the fill project and the Chief Municipal Official (CMO) and the Chair of the Board of Health (BOH) of the city or town in which the fill project is located of the proposal to use the excavated soil (including a description of the oil and/or hazardous materials that it contains) and
  - a summary of the steps taken to solicit meaningful input from those local officials, copies of comments received, and a description of the ways in which these comments have been (or will be) addressed.

MassDEP will not finalize an Administrative Consent Order on the proposed quarry, gravel pit or sand pit reclamation project unless and until all comments from such local officials on project impacts related to noise, dust, odor and/or trucks have been appropriately addressed by the project proponent.

Administrative Consent Orders will include, as appropriate, requirements for:

- Implementation of a detailed Soil and Fill Management Plan that specifies how material will be sampled<sup>9</sup>, documented, tracked, transported and managed as well as what materials are permitted and not permitted;
- Detailed plans that specify how material will be managed at the reclamation project to prevent nuisance conditions, such as noise, odor, litter and dust;
- Detailed Stormwater Management Plan to prevent impacts to sensitive receptors;
- Detailed Wetlands Impact provisions, including, as applicable, a requirement to obtain an Order of Conditions, Determination of Applicability or other approval or permit to proceed with the project as designed;
- A plan for communicating with the public and involving interested parties at key points in the implementation of the reclamation project;
- Oversight by an LSP or other qualified environmental professional and/or Third Party Inspection program;
- Knowledge of and intention to comply with all applicable laws and regulations; and
- Stipulated penalties for noncompliance with the Administrative Consent Order.

August 28, 2015  
Date

  
Gary Moran  
MassDEP Deputy Commissioner

<sup>9</sup> Soil that has been pre-characterized *in situ* prior to August 28, 2015 using standard practices, procedures and methodologies in place at the time of sampling (for example, characterized for RCRA-8 metals) may be evaluated for use as reclamation soil on the basis of that pre-characterization through August 28, 2016.

**ATTACHMENT B:**

**MASSDEP SIMILAR SOILS POLICY WSC#-13-500**



Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

## Department of Environmental Protection

One Winter Street Boston, MA 02108 • 617-292-5500

DEVAL L. PATRICK  
Governor

MAEVE VALLILY BARTLETT  
Secretary

DAVID W. CASH  
Commissioner

### Similar Soils Provision Guidance

Guidance for Identifying When Soil Concentrations at a Receiving Location Are "Not Significantly Lower Than" Managed Soil Concentrations Pursuant to 310 CMR 40.0032(3)

September 4, 2014<sup>1</sup>

(Originally published October 2, 2013 and revised April 25, 2014<sup>2</sup>)

WSC#-13-500

*The information contained in this document is intended solely as guidance. This guidance does not create any substantive or procedural rights, and is not enforceable by any party in any administrative proceeding with the Commonwealth. Parties using this guidance should be aware that there may be other acceptable alternatives for achieving and documenting compliance with the applicable regulatory requirements and performance standards of the Massachusetts Contingency Plan.*

#### I. Purpose and Scope

The Massachusetts Contingency Plan ("MCP", 310 CMR 40.0000) establishes conditions and requirements for the management of soil excavated at a disposal site. This guidance addresses the specific requirements of 310 CMR 40.0032(3) and the criteria by which a Licensed Site Professional ("LSP") may determine that soil may be moved without prior notice to or approval from the Department. Soil managed pursuant to 310 CMR 40.0032(3) may be transported using a Bill of Lading ("BOL"), but a BOL is not required. Attachment 1 provides a flowchart depiction of the Similar Soil regulations and guidance.

This guidance is not applicable to the excavation and movement of soil from locations other than M.G.L. Chapter 21E disposal sites, nor to the management of soils considered Remediation Waste under the MCP.

<sup>1</sup> Updated to revise an inaccurate RCS-1 concentration for lead in Table 2 and an inaccurate RCS-2 concentration for selenium in Table 3.

<sup>2</sup> Updated to reflect the 2014 revisions to the Massachusetts Contingency Plan, 310 CMR 40.0000

## II. Relationship to Other Local, State or Federal Requirements

This guidance is intended to clarify and more fully describe regulatory requirements contained within the MCP. Nothing in this guidance eliminates, supersedes or otherwise modifies any local, state or federal requirements that apply to the management of soil, including any local, state or federal permits or approvals necessary before placing the soil at the receiving location, including, *but not limited to*, those related to placement of fill, noise, traffic, dust control, wetlands, groundwater or drinking water source protection.

## III. Requirements of 310 CMR 40.0032(3)

The requirements specified in 310 CMR 40.0032(3) are:

- (3) Soils containing oil or waste oil at concentrations less than an otherwise applicable Reportable Concentration and that are not otherwise a hazardous waste, and soils that contain one or more hazardous materials at concentrations less than an otherwise applicable Reportable Concentration and that are not a hazardous waste, may be transported from a disposal site without notice to or approval from the Department under the provisions of this Contingency Plan, provided that such soils:
- (a) are not disposed or reused at locations where the concentrations of oil or hazardous materials in the soil would be in excess of a release notification threshold applicable at the receiving site, as delineated in 310 CMR 40.0300 and 40.1600; and
  - (b) are not disposed or reused at locations where existing concentrations of oil and/or hazardous material at the receiving site are significantly lower than the levels of those oil and/or hazardous materials present in the soil being disposed or reused.

There are therefore four requirements that must be met before the managed soil can be moved to and re-used (or disposed) at a new location without notice to or approval from MassDEP. Each requirement (A. through D.) is addressed below.

### A. The Managed Soil Must Not Be a Hazardous Waste

310 CMR 40.0032(3) applies to soils containing oil or waste oil that are not otherwise a hazardous waste, and to soils containing hazardous materials that are not a hazardous waste. The MCP definition of hazardous waste (310 CMR 40.0006) refers to the definitions promulgated in the Massachusetts Hazardous Waste Regulations, 310 CMR 30.000.

Under the federal Resource Conservation and Recovery Act of 1976 ("RCRA", 42 U.S.C. §§6901 *et. seq.*), the Massachusetts Hazardous Waste Management Act (M.G.L. c.21C), and the Massachusetts Hazardous Waste Regulations (310 CMR 30.000), soil is considered to contain a hazardous waste (hazardous waste soil) if, when generated, it meets either or both of the following two conditions:

- the soil exhibits one or more of the characteristics of a hazardous waste pursuant to 310 CMR 30.120 [such as exhibiting a characteristic of toxicity under 310 CMR 30.125 and 30.155 (Toxicity Characteristic Leaching Procedure, or TCLP)]; or
- the soil contains hazardous constituents from a listed hazardous waste identified in 310 CMR 30.130 or Title 40, Chapter I, Part 261 (Identification and Listing of Hazardous Waste) of the Code of Federal Regulations.

MassDEP has published a Technical Update entitled: *Considerations for Managing Contaminated Soil: RCRA Land Disposal Restrictions and Contained-In Determinations* (August 2010, <http://www.mass.gov/eea/docs/dep/cleanup/laws/contain.pdf>) that focuses on the determination of whether contaminated soil must be managed as a hazardous waste subject to RCRA requirements, and the presumptive approval process an LSP/PRP can use to document such a determination.

#### **B. The Managed Soil Must Be Less Than Reportable Concentrations (RCs).**

This requirement is intended to ensure that the soil being excavated and relocated from a disposal site is not "Contaminated Soil" and therefore neither "Contaminated Media" nor "Remediation Waste" as those terms are defined in 310 CMR 40.0006<sup>3</sup>.

310 CMR 40.0361 sets forth two reporting categories for soil (RCS-1 and RCS-2). Reporting Category RCS-1 applies to locations with the highest potential for exposure, such as residences, playgrounds and schools, and to locations within the boundaries of a groundwater resource area. Reporting Category RCS-2 applies to all other locations.

Note that the "applicable Reportable Concentrations" referred to in 310 CMR 40.0032(3) may be the RCS-1 or RCS-2 criteria, depending upon which category would apply to the soils being excavated at the original disposal site location, not the RCs applicable to the soils at the receiving location (see Section III.C. below).

**EXAMPLE:** If soil is being excavated from a disposal site at an RCS-2 location and the soil contaminant concentrations are found to be less than the RCS-2 criteria, then the soil is not "Contaminated Soil" since the soil is less than the release notification threshold established for RCS-2 soil by 310 CMR 40.0300 and 40.1600. The RCS-2 soil in this example is not "Contaminated Soil" even if one or more constituent concentration is greater than an RCS-1 value.

Also, the language at 310 CMR 40.0032(3) specifies the *applicable* RCs. If a notification exemption (listed at 310 CMR 40.0317) applies to the OHM in soil at its original location, then the corresponding Reportable Concentration is not *applicable*. Thus 310 CMR 40.0032(3) should be read to apply to soils containing concentrations of oil or hazardous material ("OHM") less than the applicable RCs or covered by a notification exemption. This interpretation of the requirement is consistent with the definition of Contaminated Soil, which uses the term "notification threshold" rather than "Reportable Concentration."

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<sup>3</sup> Contaminated Soil - means soil containing oil and/or hazardous material at concentrations equal to or greater than a release notification threshold established by 310 CMR 40.0300 and 40.1600.

Contaminated Media - means Contaminated Groundwater, Contaminated Sediment, Contaminated Soil, and/or Contaminated Surface Water.

Remediation Waste - means any Uncontainerized Waste, Contaminated Media, and/or Contaminated Debris that is managed pursuant to 310 CMR 40.0030. The term "Remediation Waste" does not include Containerized Waste.

**C. The Managed Soil Must Not Create a Notifiable Condition at the Receiving Location.**

This requirement is intended to prevent the creation of new reportable releases that must be subsequently assessed and remediated.

If the contaminant concentrations in the soil being relocated are less than the RCS-1 criteria, then placement of the soil in any RCS-1 location would not create a new notifiable condition. There are, however, conditions that could result in a notifiable condition.

First, if the soil is excavated from an RCS-2 location (as described in the example in Section III.B. above) with contaminant concentrations *between* the RCS-1 and RCS-2 criteria, then the placement of that soil at an RCS-1 receiving location would create a notifiable condition since one or more concentrations of OHM would then exceed the RCS-1 criteria in the RCS-1 receiving location.

Second, a notification exemption that applies to the original location of the soil may not apply to the receiving location. (For example, the lead paint exemption at 310 CMR 40.0317(8) is specific to "the point of application.") In cases where a notification exemption applies only to the original location, the managed soil must be evaluated solely based on whether its OHM concentrations exceed the applicable RCs at the receiving location.

**D. The Managed Soil Must Not Be Significantly More Contaminated Than the Soil at the Receiving Location.**

This requirement has been referred to as the "anti-degradation provision" although it is more accurately described as the "Similar Soils Provision." 310 CMR 40.0032(3)(b) requires that the concentrations of OHM at the receiving location not be "significantly lower" than the relocated soil OHM concentrations. One could also say that the provision requires that "there is no significant difference between the relocated soil and the soil at the receiving location," or that "the soils being brought to the receiving location are similar to what is already there." This requirement embodies several considerations.

First, as a general principle, M.G.L. c.21E is intended to clean up contaminated properties and leave them better than they started -- even to clean sites to background conditions, if feasible. It would be inconsistent with this principle to then raise the ambient levels of contamination in the environment as a consequence of a response action conducted under the MCP.

Second, despite the three other requirements (A. through C. above) of 310 CMR 40.0032(3), decisions about the movement of the managed soil will be based upon sampling of soil that is likely to have significant heterogeneity. The Similar Soils Provision is an additional measure to minimize the adverse effects of soil characterization that may not be representative of such heterogeneity.

Third, none of the criteria of 310 CMR 40.0032(3) address the question of whether the soil poses a *risk* in its original or receiving location, although the hazardous waste- and notification-related requirements seem to *imply* risk-based decision making. Put simply, soil that is not a hazardous waste and does not require notification may still pose incremental risk at the receiving location. The Similar Soils Provision is intended to ensure that the managed soil does not increase risk of harm to health, safety, public welfare or the environment at the receiving location, since it will be similar to what is already there.

The “not... significantly lower” language of 310 CMR 40.0032(3)(b) can be interpreted to mean either a quantitative “not statistically different” analysis, or a semi-quantitative, albeit somewhat subjective, approach. MassDEP does not believe that a statistics-driven quantitative approach is necessary when comparing managed soil to known or assumed background conditions, given (a) the relatively low concentrations at issue and (b) the cost of such an analysis, driven by the quantity of sampling needed to show a statistical difference.

The regulations imply that the LSP must have knowledge about the concentrations of OHM in the soil at the receiving location in order to apply the Similar Soils Provision. The regulations also imply that the new soil may contain concentrations of OHM that are somewhat higher than those levels at the receiving location – just not “significantly” higher.

MassDEP recognizes that there may be several approaches to address this “knowledge” issue when implementing the Similar Soils Provision of the MCP.

- **Assume the soils at the receiving location are natural background.**  
Sampling of the soil at the receiving location is not necessary if it is assumed that the concentrations of OHM there are consistent with natural background conditions. MassDEP acknowledges that there is a range of background levels, and that the concentrations at any given location may be lower than the statewide levels published by the Department<sup>4</sup>, but the costs associated with determining site-specific background are not justified by likely differences. Further, the published “natural background” levels are similarly used in several areas of the MCP as an acceptable endpoint, including site delineation and the development of the MCP cleanup standards.

Of course, routine due diligence about the receiving location may still reveal factors that would make the location inappropriate to receive the proposed fill material. Nothing in this guidance relieves any party of the obligation to conduct such due diligence and appropriately consider and act on information thereby obtained.

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<sup>4</sup> See Background Levels of Polycyclic Aromatic Hydrocarbons and Metals in Soil (May, 2002)  
<http://www.mass.gov/eea/docs/dep/cleanup/laws/backtlu.pdf>

- **Sample the soils at the receiving location.**  
The sampling plan should include a sufficient number of samples taken at locations selected to provide an understanding of the concentrations of OHM present and the distribution of OHM throughout the receiving location. In order to provide data appropriate for the Similar Soils comparison, the soil at the receiving location should be analyzed for constituents that are likely to be present there (e.g., naturally occurring metals) as well as any OHM known or likely to be present in the soil brought from the disposal site. If a receiving location has been adequately and comprehensively characterized, that data may then be used for comparison to the OHM concentrations in any subsequent soil deliveries - additional sampling is not required.
- **Provide Technical Justification for an Alternative Approach**  
There may be situations for which a different combination of analytical and non-analytical information available for both the source and receiving locations is sufficient to conclude that the nature and concentrations of OHM in the soils are not significantly different. Guidance on recognizing such conditions and the level of documentation that would be necessary to support such a technical justification is beyond the scope of this guidance.

Once the concentrations of OHM in the soils are known (or assumed consistent with this guidance), the LSP must compare the concentrations of the source and receiving locations and determine whether the concentrations at the receiving location are "significantly lower" than those in the soil proposed to be relocated from the disposal site. This comparison may be conducted in several ways, including analyses with appropriate statistical power and confidence. MassDEP has also developed a *rule-of-thumb* comparison to simplify this determination, as described in Section IV.

#### **IV. Determining whether soils at the receiving location are "significantly lower" using a simplified approach**

The simplified comparison shall be made using the *maximum* values of the OHM concentrations in both the soil at the receiving location and the soil proposed to be disposed of or reused.

Use of the maximum values is appropriate for several reasons. First, the provisions of 310 CMR 40.0032(3) include comparisons to Reportable Concentrations, and notification is triggered by any single value (i.e., maximum value) exceeding the RC. Second, soil is by its nature heterogeneous, and the use of maximum values is a means of minimizing sampling costs while addressing the expected variability of results. Third, if natural background levels are assumed at the receiving location, the MassDEP published background concentrations are upper percentile levels that are only appropriately compared to similar (e.g., maximum) values of the soil data set.

Note also that when using the maximum reported concentrations for comparison purposes, the typical or average concentration will be lower. This is important to recognize if/when the question of the risk posed by the soil is raised. For example, the RCS-1 and the Method 1 S-1 standard for arsenic are both 20 mg/kg. The Reportable Concentration is applied as a not-to-be-exceeded value, triggering the need to report the release and investigate further. However the S-1 standard is applied as an average value, considering exposure over time. At a location where the highest arsenic value found is less than 20 mg/kg, the average concentration would be well below the Method 1 S-1 standard.

The maximum concentration in the soil at the receiving location may be less than that in the proposed disposed/reused soil by some amount and not be considered "significantly lower." The question is how much lower is "significantly lower"? In this guidance, MassDEP establishes a multiplying factor to be applied to the concentration in the soil at the receiving location. The multiplying factor varies depending upon the concentration in the soil at the receiving location, as shown in Table 1.

**Table 1. Receiving Soil Concentration Multiplying Factors**

If the concentration in soil at the receiving location for a given OHM is:	Then use a multiplying factor of:
< 10 mg/kg	10
10 mg/kg $\leq$ x < 100 mg/kg	7.5
100 mg/kg $\leq$ x < 1,000 mg/kg	5
$\geq$ 1,000 mg/kg	2.5

**EXAMPLE:** The soil at a receiving location that is considered RCS-1 is appropriately sampled and the maximum concentration of silver is found to be 6 mg/kg. Using Table 1, the concentration of silver at the receiving location would not be considered "significantly lower" than  $10 \times 6 \text{ mg/kg} = 60 \text{ mg/kg}$ . Since 60 mg/kg is less than the silver RCS-1 value of 100 mg/kg, soil containing a maximum concentration that is less than 60 mg/kg silver could be reused at this location.

**EXAMPLE:** The soil at a receiving location that is considered RCS-1 is assumed to be consistent with natural background. The MassDEP published natural background level for arsenic is 20 mg/kg. Using Table 1, the concentration of arsenic at the receiving location would not be considered "significantly lower" than  $7.5 \times 20 \text{ mg/kg} = 150 \text{ mg/kg}$ . However, since 150 mg/kg is greater than the arsenic RCS-1 value of 20 mg/kg, only soil containing a maximum concentration that is less than 20 mg/kg arsenic could be reused at this location. [The managed soil must not create a notifiable condition at the receiving location, see Section III.C. above.]

**EXAMPLE:** The soil at a receiving location that is considered RCS-2 is assumed to be consistent with natural background. The MassDEP published natural background level for benzo[a]anthracene is 2 mg/kg. Using Table 1, the concentration of benzo[a]anthracene at the receiving location would not be considered "significantly lower" than  $10 \times 2 \text{ mg/kg} = 20 \text{ mg/kg}$ . Since 20 mg/kg is less than the benzo[a]anthracene RCS-2 value of 40 mg/kg, soil containing a maximum concentration that is less than 20 mg/kg benzo[a]anthracene could be reused at this location. [Note that due to the lower reportable concentration, RCS-1 receiving locations could only accept soil containing less than 7 mg/kg benzo[a]anthracene.]

The multiplying factors in Table 1 and the MassDEP published natural background levels can be used to establish concentrations of OHM in soil that would be acceptable for reuse at an RCS-1 receiving location, consistent with the requirements of 310 CMR 40.0032(3). Table 2 lists such concentrations. Note that soil that meets the criteria in Table 2 could be re-used at any location (RCS-1 or RCS-2). Similarly, Table 3 lists concentrations of OHM in soil that would be acceptable for reuse at an RCS-2 receiving location (but not RCS-1 locations).

If a chemical is not listed on these tables, then MassDEP has not established a natural background concentration<sup>6</sup>. This guidance is limited to the use of only MassDEP-published statewide background concentrations. Therefore an alternative approach, such as sampling the receiving location and comparing maximum reported concentrations, would be appropriate to meet the requirements of 310 CMR 40.0032(3).

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<sup>6</sup> For example, MassDEP has not established natural background levels for PCBs, volatile organic compounds (VOCs) or petroleum-related constituents.

**Table 2.**  
**Limits to the Concentration of OHM In Soil for Re-Use**  
**Assuming Natural Background Conditions at an RCS-1 Receiving Location**

OIL OR HAZARDOUS MATERIAL	Concentration	Rule-of- Thumb Multiplier	Multiplied Value mg/kg	RCS-1 mg/kg	Limiting <sup>1</sup>
	In "Natural" Soil mg/kg				Soil Concentration mg/kg
ACENAPHTHENE	0.5	10	5	4	< 4
ACENAPHTHYLENE	0.5	10	5	1	< 1
ALUMINIUM	10,000	2.5	25000		< 25000
ANTHRACENE	1	10	10	1000	< 10
ANTIMONY	1	10	10	20	< 10
ARSENIC	20	7.5	150	20	< 20
BARIUM	50	7.5	375	1000	< 375
BENZO(a)ANTHRACENE	2	10	20	7	< 7
BENZO(a)PYRENE	2	10	20	2	< 2
BENZO(b)FLUORANTHENE	2	10	20	7	< 7
BENZO(g,h,i)PERYLENE	1	10	10	1000	< 10
BENZO(k)FLUORANTHENE	1	10	10	70	< 10
BERYLLIUM	0.4	10	4	90	< 4
CADMIUM	2	10	20	70	< 20
CHROMIUM (TOTAL)	30	7.5	225	100	< 100
CHROMIUM(III)	30	7.5	225	1000	< 225
CHROMIUM(VI)	30	7.5	225	100	< 100
CHRYSENE	2	10	20	70	< 20
COBALT	4	10	40		< 40
COPPER	40	7.5	300		< 300
DIBENZO(a,h)ANTHRACENE	0.5	10	5	0.7	< 0.7
FLUORANTHENE	4	10	40	1000	< 40
FLUORENE	1	10	10	1000	< 10
INDENO(1,2,3-cd)PYRENE	1	10	10	7	< 7
IRON	20,000	2.5	50000		< 50000
LEAD	100	5	500	200	< 200
MAGNESIUM	5,000	2.5	12500		< 12500
MANGANESE	300	5	1500		< 1500
MERCURY	0.3	10	3	20	< 3
METHYLNAPHTHALENE, 2-	0.5	10	5	0.7	< 0.7
NAPHTHALENE	0.5	10	5	4	< 4
NICKEL	20	7.5	150	600	< 150
PHENANTHRENE	3	10	30	10	< 10
PYRENE	4	10	40	1000	< 40
SELENIUM	0.5	10	5	400	< 5
SILVER	0.6	10	6	100	< 6
THALLIUM	0.6	10	6	8	< 6
VANADIUM	30	7.5	225	400	< 225
ZINC	100	5	500	1000	< 500

<sup>1</sup> Concentration of OHM in soil must be LESS THAN (not equal or greater than) this value.

**Table 3.**  
**Limits to the Concentration of OHM In Soil for Re-Use**  
**Assuming Natural Background Conditions at an RCS-2 Receiving Location**

OIL OR HAZARDOUS MATERIAL	Concentration			RCS-2 mg/kg	Limiting <sup>1</sup> Soil Concentration mg/kg	
	In "Natural" Soil mg/kg	Rule-of- Thumb Multiplier	Multiplied Value mg/kg		<	
ACENAPHTHENE	0.5	10	5	3000	<	5
ACENAPHTHYLENE	0.5	10	5	10	<	5
ALUMINIUM	10,000	2.5	25000		<	25000
ANTHRACENE	1	10	10	3000	<	10
ANTIMONY	1	10	10	30	<	10
ARSENIC	20	7.5	150	20	<	20
BARIUM	50	7.5	375	3000	<	375
BENZO(a)ANTHRACENE	2	10	20	40	<	20
BENZO(a)PYRENE	2	10	20	7	<	7
BENZO(b)FLUORANTHENE	2	10	20	40	<	20
BENZO(g,h,i)PERYLENE	1	10	10	3000	<	10
BENZO(k)FLUORANTHENE	1	10	10	400	<	10
BERYLLIUM	0.4	10	4	200	<	4
CADMIUM	2	10	20	100	<	20
CHROMIUM (TOTAL)	30	7.5	225	200	<	200
CHROMIUM(III)	30	7.5	225	3000	<	225
CHROMIUM(VI)	30	7.5	225	200	<	200
CHRYSENE	2	10	20	400	<	20
COBALT	4	10	40		<	40
COPPER	40	7.5	300		<	300
DIBENZO(a,h)ANTHRACENE	0.5	10	5	4	<	4
FLUORANTHENE	4	10	40	3000	<	40
FLUORENE	1	10	10	3000	<	10
INDENO(1,2,3-cd)PYRENE	1	10	10	40	<	10
IRON	20,000	2.5	50000		<	50000
LEAD	100	5	500	600	<	500
MAGNESIUM	5,000	2.5	12500		<	12500
MANGANESE	300	5	1500		<	1500
MERCURY	0.3	10	3	30	<	3
METHYLNAPHTHALENE, 2-	0.5	10	5	80	<	5
NAPHTHALENE	0.5	10	5	20	<	5
NICKEL	20	7.5	150	1000	<	150
PHENANTHRENE	3	10	30	1000	<	30
PYRENE	4	10	40	3000	<	40
SELENIUM	0.5	10	5	700	<	5
SILVER	0.6	10	6	200	<	6
THALLIUM	0.6	10	6	60	<	6
VANADIUM	30	7.5	225	700	<	225
ZINC	100	5	500	3000	<	500

<sup>1</sup> Concentration of OHM in soil must be LESS THAN (not equal or greater than) this value.

## V. Sampling Considerations

The soil proposed for disposal/re-use should be sampled at sufficient and adequately distributed locations so that the concentrations of the contaminants of concern in the soil are adequately characterized. This includes sampling for the purpose of MCP site assessment and sampling to characterize the soil in any given stockpile/shipment leaving the site. The factors listed below should be considered when developing and implementing such a sampling plan. Evaluation of release, source, and site specific conditions assist in developing the basis for the selection of field screening techniques, sampling methodologies, sampling frequencies, and the contaminants of concern (e.g., analytical parameters) used to characterize the soil. These include, but are not necessarily limited to the following:

- the type(s) and likely constituents known or suspected to be in the soil;
- current and former site uses, past incidents involving the spill or release of OHM, and past and present management practices of OHM at the site;
- the potential for the soil to contain listed hazardous waste or to be a characteristic hazardous waste;
- the presence or likelihood of any other OHM (e.g., chlorinated solvents, metals, polychlorinated biphenyls (PCBs), semi-volatile organic compounds (SVOCs), halogenated volatile organic compounds (VOCs));
- visual/olfactory observations, field screening, analytical data, and/or in-situ pre-characterization data;
- soil matrix type - naturally occurring soil or fill/soil mixtures (e.g., homogeneous or heterogeneous soil conditions);
- the identification and segregation of discrete "hot spots";
- the concentration variability in the soil;
- the volume of soil;
- the current and likely future exposure potential at the receiving location, including the potential for sensitive receptors, such as young children, to contact the soil (for example, more extensive sampling of the stockpiles would be warranted for soil slated to be moved to a residential setting than for soil being moved to a secure, low-exposure potential regulated receiving facility); and
- any sampling requirements stipulated by the receiving location.

The assessment of the soil, including the nature and concentrations of OHM therein, is a component of the MCP site assessment and therefore must meet all applicable performance standards, including those for environmental sample collection, analysis and data usability<sup>6</sup>. The assessment should address the precision, accuracy, completeness, representativeness, and comparability of the sampling and analytical results used to determine whether the soil

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<sup>6</sup> Additional guidance on data usability is available in Policy #WSC-07-350, MCP Representativeness Evaluations and Data Usability Assessments. <http://www.mass.gov/eea/docs/dep/cleanup/laws/07-350.pdf>

stockpiles meet the Similar Soils Provision requirements. The representativeness of any site assessment sampling data if used to characterize contaminant concentrations in soil to be moved and reused offsite should be carefully evaluated. Additional guidance on soil sampling considerations is available from U.S. EPA and other state environmental agencies.<sup>7</sup>

## VI. Segregation and Management of Soils of Different Known Quality

Soil containing concentrations of OHM equal to or greater than the values listed in Table 3 cannot be managed using the streamlined approach described in this guidance. Such soil must be managed in a manner consistent with its regulatory classification, which may include management as a hazardous waste, as a remediation waste, or under a case-specific Similar Soils determination.

Segregation of soil of different quality should occur based upon *in-situ* pre-characterization sampling results. Stockpiles of soil are mixtures that would require more extensive sampling to document the effectiveness of any attempted post-excavation segregation.

The known presence of soil that exceeds the Table 3 concentrations and the subsequent segregation of soil is one factor that would indicate the need for more frequent sampling (at least in that area of soil excavation) as described in Section V.

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<sup>7</sup> Note that the guidance below are not specific to MGL Chapter 21E disposal sites and may not reflect MCP-specific considerations to determine the suitability of soils for offsite transport and use, such as for residential and other S-I locations.

NJDEP. 2011. Alternative and Clean Fill Guidance for SRP Sites.  
New Jersey Department of Environmental Protection Site Remediation Program  
[http://www.state.nj.us/dep/srp/guidance/srra/fill\\_protocol.pdf](http://www.state.nj.us/dep/srp/guidance/srra/fill_protocol.pdf)

USEPA. 1992. Supplemental Guidance to RAGS: Calculating the Concentration Term.  
Office of Solid Waste and Emergency Response (OSWER), Washington, DC  
[http://www.epa.gov/oswer/riskassessment/pdf/1992\\_0622\\_concentrationterm.pdf](http://www.epa.gov/oswer/riskassessment/pdf/1992_0622_concentrationterm.pdf)

USEPA. 1995. Superfund Program Representative Sampling Guidance Volume 1: Soil.  
OSWER, Washington, DC.  
(Note that guidance for determining the number of samples for statistical analysis is addressed in Section 5.4.1).  
[http://www.epa.gov/tio/download/char/sf\\_rep\\_samp\\_guid\\_soil.pdf](http://www.epa.gov/tio/download/char/sf_rep_samp_guid_soil.pdf)



**ATTACHMENT C:**

**SOIL MANAGEMENT PLAN**



**TERRA ENVIRONMENTAL, LLC**  
PLANNING • CONSULTING • MANAGEMENT • REMEDIATION

# **SOIL MANAGEMENT PLAN**

**NASHUA ROAD QUARRY RECLAMATION PROJECT**

**161 NASHUA ROAD**

**PEPPERELL, MA 01463**

**Prepared for:**

Mass Composting Group, Inc.

161 Nashua Road

Pepperell, MA 01463

**Prepared by:**

TERRA Environmental, LLC

159 haven St., 2<sup>nd</sup> Floor

Reading, MA 01867

**Prepared: June 28, 2018**

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## 1.0 INTRODUCTION

The **Nashua Road Quarry Reclamation Project** location is 161 Nashua Road in Pepperell, Massachusetts, (See Site Assessment map, **Figure 1** and Topographic map, **Figure 2**) and is identified as parcel 6-20-0 in the Town of Pepperell's Assessor's Property Map 6 (**Figure 3**). The subject site is located off 161 Nashua Road (i.e. **Route 111**) and is zoned Industrial by the Town of Pepperell.

The following soil management plan and attachments discuss our approach to reclaiming the gravel to pre-mining conditions in accordance with previously issued removal permits and MassDEP policies including, "Similar Soils Policy WSC#-13-500 and MassDEP, Policy #COMM-15-01, Interim Policy on the Re-use of Soil for Large Reclamation Projects (i.e. quarries, sand and gravel pits).

Historically, the site was used as a quarry for the production of gravel by Shattuck prior to 1972. The site access is located off Nashua Road/Route 111 and the site is being prepared for future development under its existing Industrial Zoning (**Figure 4**).

There will be no new impervious area(s) added as part of the proposed project. The project will include semi-permanent placement of silt fence along the site boundaries and will serve as a visible and physical barrier between the work area and surrounding properties.

It is anticipated that the reclamation project will take approximately 7 to 9 years to complete based upon the size of the area to be filled; projections of volumes of fill material likely available and anticipated daily operations at the site. It is estimated that 4-million cubic yards of soil will be received over the course of the project. Anticipated sources of fill material include large volumes of excess soil from excavation and construction projects in Massachusetts, as well as qualified soils from Maine and New Hampshire. The intended fill material will include native deposits of soil including sand, gravel, organic soils, estuarine deposits, marine sands, glacial till, clay, fill soils, and soil/slurry mixtures from foundation installations.

Soil intended for reuse in the filling operation must meet the Acceptance Criteria established for this location. The derivation of the Acceptance Criteria is based on MassDEP's Similar Soils Policy WSC#-13-500, MassDEP Policy #COMM-15-01 (Policy for re-use of soil for Large Reclamation Projects), Massachusetts Contingency Plan (MCP) and any other applicable state and federal regulations. All Reclamation soil will be sampled and analyzed under the supervision of a Licensed Site Professional (LSP) prior to accepting them for reuse by the Project.

The Property owner including "involved parties" identified in section 2.0 of this Plan have met the Town regarding this project, see Appendix B.

### 1.1 SITE BACKGROUND AND HISTORY

The Shattuck Gravel Pit, hereinafter referred to as "**Shattuck Pit**" is located off Nashua Road, also known as and identified as State Route Number 111 and is located within the Industrial Zone as shown on the Town of Pepperell Zoning Map. Under current Town Zoning Regulations, Earth and soil removal operations are allowed by Board of Selectmen Special Permit in the Industrial Zone. Such use has been an allowed use in the Industrial Zone since on or about 1973 by Special Permit and prior thereto as a matter of right (1968+). Gravel removal operations have occurred at the **Shattuck Pit** under previously issued permits. No gravel removal operations will occur as part of the reclamation project.

Gravel removal operations for the **Shattuck Pit** date back to prior to 1972. It is reported that gravel removal operations were originally initiated in 1965. Shattuck's removal operation mandates restoration standards to be completed and include a provision to restore excavated areas. In addition, the provision states that no slope shall be left with a slope steeper than three to one (3:1) and the final grades will be covered with topsoil and seeded. Such restoration standards have been in effect since adoption of the Town Zoning regulations for soil removal and have been a recited "condition" in each permit granted for soil removal operations for the **Shattuck Pit** and which restoration conditions remain outstanding. The reclamation project would be undertaken pursuant to "reclamation" provisions provided in previously issued permits and including "MassDEP, Policy #COMM-15-01, Interim Policy on the Re-use of Soil for Large Reclamation Projects (i.e. quarries, sand and gravel pits) "and MassDEP "Similar Soils Policy WSC#-13-500."

#### **1.1.1 Topography, Geology and Soils**

The topography of the site consists of a relatively flat-bottomed quarry with a steep blasted edge running north and south through the center of the pit. The highest elevation on the site exists in the center of the property and is approximately 250 feet (NAD 83) and the lowest elevation on the site exists at the edge of the northeast corner along Sewall Road and is approximately 55 feet (NAD 83).

#### **1.1.2 Wetlands Delineation**

The proposed project includes the clearing of minor scrub bushes. No clearing, filling or disturbance will take place within 100' of any wetlands, or 100 around a potential vernal pool as indicated on the site plans. The Site, specifically the reclamation area, is not a Priority Habitat for Rare Species, and does not require special permitting under National Heritage, MESA and does not require specific wetlands permitting for the Project. This has been addressed by Oxbow Associates, Inc. as detailed in Appendix A.

A Notice of Intent (NOI) and a Storm Water Pollution Prevention Plan (SWPPP) will be prepared and implemented in accordance with USEPA National Pollutant Discharge Elimination System (NPDES) requirements for a Construction General Permit disturbing over 1 acre of land. A draft copy of the Storm Water Pollution Prevention Plan along with the draft eNOI will be prepared and submitted within 30-days of starting land disturbance activities. The final version will be provided under a separate cover to the Town and will be included in Appendix C.

#### **1.1.3 Site Setting and Potential Receptors**

Pursuant to the MCP, the soil and groundwater Reportable Concentrations (RCs) applicable to the site - are RCS-2 for soil and RCGW-2 for groundwater. The determination is supported by the following criteria:

##### **Soil:**

- There are no residential properties within 500 feet from the Site
- According to interviews with town officials, and review of available documents, all properties within 1,000 feet are reportedly connected to the municipal water distribution system.
- There are no private/residential drinking water wells within ¼ mile of the Site.
- There will be no athletic fields or areas of high intensity activity in the area to be filled under this proposal and the intended future use of the Site is industrial as allowed by the Town of Pepperell.
- There are also no planned vegetable or communal vegetable gardens.

**Groundwater:** Based on a review of the MassDEP Phase I Priority Resource Map (Figure 1), Pepperell Zoning Maps, local file reviews and conditions observed at the Site, groundwater at the Site meets the criteria of groundwater category RCGW-2.

- **RCGW-1:** This criterion does not apply since the reclamation area is not located within the geographic boundaries of a MassDEP Approved Wellhead Protection Area (Zone II), Interim Wellhead Protection Area, Zone A of Class A surface water body used as a public water supply, Potentially Productive Aquifer or an aquifer protection district. According to Zoning Maps, the Site is not located within an aquifer or groundwater protection district
- **RCGW-2:** This criterion applies since the Site is not located within a current or potential drinking water resource area.

## 1.2 GROUNDWATER MONITORING

A groundwater monitoring program will be implemented to monitor groundwater quality and assess potential changes to environmental conditions at the Site during reclamation activities. A total of four (4) groundwater-monitoring wells will be installed as shown on Figure 6 to establish background - concentrations of dissolved components in groundwater at the project site and to complete annual monitoring of the groundwater. The Groundwater Monitoring Plan will be submitted to MassDEP within 90 days of the effective date of the Administrative Consent Order. The plan will include the following:

A groundwater monitoring network showing the location of monitoring wells sufficient to demonstrate groundwater flow direction and capable of being used to monitor any contaminant releases that may occur within the entire fill area at the Site.

The wells will be sampled using low-flow sampling procedures, and samples will be analyzed for the presence of polychlorinated biphenyls (PCBs), semi-volatile organic compounds (SVOCs), total MCP-14 metals, volatile organic compounds (VOCs), herbicides, pesticides, and extractable petroleum hydrocarbons (EPH). Samples collected for MCP-14 metals shall include both filtered and unfiltered containers; the unfiltered sample containers shall be analyzed initially by the laboratory, with an option to analyze the filtered sample should the unfiltered samples contain elevated levels of the MCP-14 metals.

Monitoring shall be conducted semi-annually throughout the duration of reclamation activities and annually thereafter for four (4) years after its completion. The results of the sampling data will be added to this plan as Appendix D as obtained. A final sampling event will be performed two (2) years after completion of the project.

When required by the Department and/or determined from monitoring results or other Soil Management Plan (SMP) activity at the project location, the Project shall conduct an appropriate risk assessment and associated mitigation, if necessary, when any potential or adverse impact(s) have been identified as a result of project activities.

**2.0 PARTIES INVOLVED**

Several parties will be involved with the placement of fill material associated with the Nashua Road Quarry Reclamation Project at 161 Nashua Street.

**Property Owner:**

Mass Composting Group, Inc.  
161 Nashua Road  
Pepperell, MA

**Environmental and Reclamation Project Manager**

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### 3.0 RECLAMATION SOIL ACCEPTANCE CRITERIA

Soil acceptance criteria has been established for various constituents in soil intended for use as fill material at the Nashua Road Site. The criteria were based on review of available and applicable soil standards, guidelines, values, criteria, and background levels established by MassDEP in various regulations, guidelines, and MassDEP technical guidance documents including the Interim Policy on the Re-Use of Soil for Large Reclamation Projects, Policy #COMM-15-01 dated August 28, 2015, the Similar Soils Provision Guidance WSC#-13-500 dated September 4, 2014 (Similar Soils Guidance), and concentration ranges of typical contaminants detected in historic urban fill, naturally-deposited soil, Boston Blue Clay, and other soil. The acceptance criteria were established to be protective of surrounding natural resource areas including groundwater and nearby wetland areas.

#### 3.1 DEVELOPMENT OF SOIL ACCEPTANCE CRITERIA

##### 3.1.1 Groundwater Classification

The reclamation area is not located within a Current Drinking Water Source Area:

- (a) MassDEP Phase I Site Assessment Map (see Figure 1) and MassGIS mapping (see Figure 5) shows a portion of the property is located within the Zone II for a public water supply;
  - i. Reclamation (i.e. placement of soil) will not occur in Zone II
- (b) MassDEP Phase I Site Assessment Map shows the site is not within the Interim Wellhead Protection Area for a public water supply;
- (c) A review of MassGIS mapping and the MassDEP Phase I Site Assessment Map shows the site is not within the Zone A of a Class A surface water body used as a public water supply; and
- (d) A review of the Town of Pepperell, Board of Health drilling permits shows the fill portion of the project is not within 500 feet of a private water supply well.

The site is not located within a Potential Drinking Water Source Area:

- (a) A review of the Town of Pepperell utilities shows the property is within 500 feet of a public water supply distribution pipeline located on Nashua Road;
- (b) The property is not within an area designated by the municipality specifically for the protection of groundwater quality to ensure its availability for use as a source of potable water supply.
- (c) There is no local ordinance or bylaw adopted by the municipality for protection of groundwater at the site, there is no inter-municipal agreement approved by the Town of Pepperell and no executed inter-governmental contract for the purchase or sale of drinking water derived from the site; and
- (c) MassGIS mapping shows the property is not within a Potentially Productive Aquifer that has not been excluded as a Non-Potential Drinking Water Source Area. This is a non-potential Drinking Water Source as this groundwater underlies land which has been developed for heavy industry as of January 1, 1996. This Industrial Zoning Area has been in industrial use (granite quarrying and material processing) for over 120 years encompassing an area greater than 100 acres.

Accordingly, the site is subject to RCGW-2 reporting criteria.

### **3.1.2 Soil Testing Requirements and Standards**

Chemical constituents within candidate soil must be less than established Acceptance Criteria. The Criteria were established for the following: MCP-14 Metals (pursuant to DEP Policy #COMM-15-01, Semi-volatile Organic Compounds (SVOCs), Total Petroleum Hydrocarbons (TPH), Volatile Organic Compounds (VOCs), Polychlorinated Biphenyls (PCBs), pH/corrosivity, Specific Conductance, Moisture Content/Free Liquids, Reactivity (cyanide and sulfide), Ignitibility/Flash Point, Herbicides, Pesticides, and other potential constituents based on location-specific history.

Reporting limits for laboratory tests must be appropriate and adequate for evaluation and comparison to Acceptance Criteria. MassDEP Compendium of Analytical Methods (CAM) and levels must be utilized for all CAM analytes.

Averaging of concentrations will not be allowed to meet Soil Acceptance Criteria. Soil containing a constituent at a concentration equal to or exceeding Soil Acceptance Criteria will not be accepted. All batches of soil, represented by a single composite analysis, must meet Soil Acceptance Criteria as established herein.

### **3.1.3 Visual, Olfactory, and Field Screening Criteria**

All soil intended for reuse in the Nashua Road as filling and grading material will meet visual, olfactory, and field screening criteria prior to being accepted and/or placed. Visual inspection of soil is to be performed at time of soil borings, test pits, stockpile sampling, at time of excavation, and/or upon arrival at the project site prior to acceptance and placement. Mass Composting Group will have an authorized representative on-site on a full-time basis to observe off-loading of trucks and perform visual inspections of soil.

Soil will exhibit no indication of staining or other discoloration indicative of a release or impact of oil or hazardous material or other nuisance conditions. Soil and fill materials approved for use at the property shall contain no more than a total of 5% by volume of asphalt, brick and concrete ("ABC") material. Any such ABC material must measure less than 6 inches in any dimension and acceptance of such soil will be considered on a case-by-case basis. Soil and fill materials approved for use at the property may contain only incidental, randomly dispersed, de minimus quantities of ash and/or Solid Wastes, as defined in 310 CMR 16.00 and 310 CMR 19.00, collectively present at less than 1% by volume.

Loads arriving with material not meeting acceptance criteria or determined to contain contaminants at levels at or exceeding acceptance criteria based on quality assurance/quality control sampling will be rejected and removed from the Nashua Road site at the expense of the Generator of that material. Loads not meeting acceptance criteria at the time of delivery to the project site due to debris, odors, or other nonconformance with Acceptance Criteria will be rejected prior to off-loading or reloaded immediately by the facility operator. Such loads will be removed from the project site immediately in the truck they were delivered in.

Should testing or observations indicate soil, as delivered, is not below acceptance criteria, the Generator of that soil and the party contracting with Nashua Road for placement of soil will promptly remove such soil from the project site at a maximum not to exceed seven (7) days. Additional soil will not be accepted from a source where soil failed a QA/QC test or soil was rejected by the facility upon arrival, until appropriate resolution is reached. If the Generator of the soils fails to act, the rejected soil will be removed from the site within this fourteen-day period by Mass Composting Group

Soil will not contain nuisance odors; such as, petroleum, chemicals, solvent, and/or organic material/hydrogen sulfide as described on soil boring or test pit logs, stockpile sampling plans, and/or upon arrival at the project location. Soil with natural organic/hydrogen sulfide odor that is mixed with an odor reducing agent at the location of origin will be evaluated on a case-by-case basis. The Safety Data Sheet (SDS) for all odor-reducing products is required with soil submittal packages.

Soil must be field screened for Total Organic Vapors (TOV) following the MassDEP Jar Headspace Screening Procedure MassDEP Policy #WSC-94-400, modified to be based upon an isobutylene response factor rather than a Benzene standard at the time of sample collection from borings, test pits, stockpiles, or other locations or at the time of excavation and load out. Soil must also be field screened at the time of excavation and load out to the Nashua Road site at a frequency of one (1) field-screening test per approximately 50 cubic yards of soil. These samples shall be preferentially obtained from soils displaying signs of contamination, such as discoloration or odors, if present. Soil must contain less than five (5) parts per million volume (ppmv) TOV above ambient background by the jar headspace screening procedure to meet Acceptance Criteria. Natural organic soils, which exhibit TOV screening levels above five (5) ppmv, may be considered for acceptance on a case-by-case basis provided the following:

- Results of analytical testing, particularly VOC analysis, for the soil that exceeded the 5 ppmv TOV value identifies no exceedances of acceptance criteria; or
- Source of elevated TOV screening levels can be attributed to a source other than oil or hazardous material (such as hydrogen sulfide interference on PID).

Soil mixed with bentonite clay or other slurry material will be accepted on a case-by-case basis. A description of the process and materials generating the soil with slurry must be provided. The safety data sheet (SDS) for all slurry and additive products must be submitted for review. If needed, pH must be adjusted to meet Acceptance Criteria prior to arrival at the fill site. Soil with slurry mixture is subject to field screening for pH upon arrival at the fill site and subject to rejection if Acceptance Criteria are not met.

Soil will contain no free liquid at the time of loading or upon arrival at the project site. Soil containing free liquid will be rejected upon arrival and inspection.

#### **3.1.4 Additional Considerations**

A review of the Massachusetts Natural Heritage & Endangered Species Program (NHESP) online database was conducted. The property is not located within a mapped Priority Habitat for Rare Species or an Estimated Habitat for Rare Species. Further, there are no potential vernal pool mapped at this property, within the project site, see Appendix A.

### **3.2 SOURCE REVIEW, ACCEPTANCE CRITERIA AND PROCEDURES**

#### **3.2.1 Source Site History and Use Criteria**

Relevant site history and uses of each soil origin/source with regard to the presence, use, disposal, and/or release of oil or hazardous material must be provided in submittal packages prior to acceptance at Nashua Road. Reports including MCP phase reports, URAMS, RAMS, LRAs, ASTM Environmental Site Assessment Reports, or similar documentation must be submitted and will be reviewed with regard to suitability of soil as fill material for this project. In addition, MassDEP's Similar Soils Policy will be applied for the

acceptance and reuse of Reclamation Soils.

Soil that meets the definition of Remediation Waste as defined in Section 40.0032 of the MCP will not be considered for reuse at the Nashua Road Project site.

### 3.2.2 SOURCE SOIL SAMPLING APPROACH

A composite approach is preferred in obtaining samples for chemical analysis. Each composite sample subjected to chemical testing should be comprised of at least eight (8) sub-samples obtained throughout the area/volume being evaluated. However, in no case shall soil displaying apparent signs of contamination (i.e., staining, discoloration, odors, or elevated PID readings) be composited/mixed with soils that do not display these signs. If present, these suspicious soils shall be sampled or composited for separate analyses.

An LSP, or other qualified environmental professional, must justify the representativeness and usability of any testing data obtained from discrete soil samples or composite samples with fewer than five (5) sub-samples.

### 3.2.3 SOURCE SOIL CHEMICAL TESTING REQUIREMENTS

Testing is required on soil proposed for acceptance as fill material from sources such as developed areas with historic urban fill soil, locations identified as an MCP Disposal Site or other oil or hazardous material release or spill locations, locations with history of manufacturing or industrial use, locations with current or past chemical or petroleum storage, or soil known to contain naturally-occurring elevated levels of metals including Boston Blue Clay and soil from Worcester County with arsenic.

Upon review of initial submittal package information from a soil source, source-specific supplemental testing of specific areas for specific contaminants where the proposed soil is adjacent to other soils with exceedance(s) of acceptance criteria to define/confirm limits of acceptable soil may be required at the discretion of the reviewing LSP prior to acceptance of proposed soil.

#### Required Test Parameters

Test parameters required on soil to be considered for acceptance include:

- Volatile Organic Compounds (EPA 8260 with methanol preservation)
- Semi-volatile Organic Compounds (EPA 8270 full list)
- Metals: MCP 14 metals
- PCBs
- Total Petroleum Hydrocarbons (summation of EPH Fractions may be substituted)
- Hexavalent Chromium if Total Chromium > 100 mg/kg
- pH/Corrosivity
- Specific Conductance (conductivity; may be limited based on site history)
- Field Screening for Total Organic Vapors (PID following MADEP Jar Headspace Screening Procedure based upon an isobutylene response factor)
- Herbicides (may be excluded or limited based on site history)
- Pesticides (may be excluded or limited based on site history)
- Ignitibility/Flash point (may be excluded or limited based on site history)
- Reactive Cyanide (may be excluded or limited based on site history)
- Reactive Sulfide (may be excluded or limited based on site history)
- TCLP for any analyte exceeding EPA TCLP Trigger Values (20 times rule)

- Net Acid Generation
- Others as deemed prudent based on soil source site history.

Current and appropriate versions of applicable methods are to be used in accordance with MassDEP Compendium of Analytical Methods. Reporting limits for analyses must be appropriate for comparison to Acceptance Criteria. Generator and Qualified Environmental Professional/LSP must assert that data is appropriate for use as intended.

**3.2.4 Required Chemical Testing and Frequency**

Initial testing by the Generator is required at the minimum frequencies below. Additional testing may be required for the following situations when an Acceptance Criterion is exceeded within or in proximity to soil requested for reuse at 161 Nashua Road:

	Source/Origin Description	Minimum Sampling Frequency
1	<p><b>Naturally Deposited Soils</b> Not from an area of known or suspected high background levels of metals, No / not proximate to urban fill soil, No / not proximate to MCP Disposal Site No industrial/commercial history No agricultural history with likely pesticide / herbicide use</p>	<p>No testing required with Generator and Qualified Environmental Professional / LSP Statement including documentation of site background / area conditions.</p>
2	<p><b>Other naturally-deposited soils from known or suspected areas of elevated metals (i.e. Boston Blue Clay, Marine Soils).</b> Not / not proximate to urban fill soil, Not / not proximate to MCP Disposal Site No industrial or manufacturing history No agricultural history with likely pesticide / herbicide use</p>	<p>1 test profile per 1,000 cubic yards (1,500 – 1,700 ton). If any acceptance criteria are exceeded, supplemental in-situ or ex-situ (stockpile) samples must be obtained at a minimum frequency of 1 sample/100 cubic yards to confirm limits of acceptable soils for the contaminant(s) that exceeded acceptance criteria.</p>
3	<p><b>Historic Fill Soil</b> Historic Fill and other soil in areas where impacts would be expected from lead paint, oils, pesticides/herbicides use, and other anthropogenic activities. No industrial or manufacturing history</p>	<p>1 test profile per 500-cy (750-850 ton). If any acceptance criteria are exceeded, supplemental in-situ or ex-situ (stockpile) samples must be obtained at a minimum frequency of 1 sample / 100 cubic yards to confirm limits of acceptable soils for the contaminant(s) that exceeded acceptance criteria.</p>

	Source/Origin Description	Minimum Sampling Frequency
4	<p><b>Commercial/Industrial Soils</b> Soil from current or former Industrial, Commercial, or Manufacturing site with history of Tannery, Textiles, Chemical/Paint Production, Circuit Board manufacturing, Plating/Metal finishing, Foundry operations, Coal Gasification, Dry Cleaning, Salvage Yards, or Herbicide / Pesticide use, storage or distribution facilities.</p> <p>No soil or fill shall be obtained from, or immediately contiguous, to such locations unless an LSP, LSRP, or LEP provides a report detailing why such soils conform to acceptance criteria.</p>	<p>Minimum 1 test profile per 500-cy (750-850 ton).</p> <p>If any acceptance criteria are exceeded, supplemental in-situ or ex-situ (stockpile) samples must be obtained at a minimum frequency of 1 sample/100 cubic yards to confirm limits of acceptable soils for the contaminant(s) that exceeded acceptance criteria. Additional test parameters such as cyanide must be included as appropriate.</p>
5	<p><b>Other</b> Soil from source not otherwise described above where historic test data indicate exceedance of Acceptance Criteria, or where past use or site history indicated use or storage of oil or hazardous materials at more than household quantities, or use of pesticide/herbicides</p>	<p>Minimum 1 test profile per 500-cy (750-850 ton).</p> <p>If any acceptance criteria are exceeded, supplemental in-situ or ex-situ (stockpile) samples must be obtained at a minimum frequency of 1 sample/100 cubic yards to confirm limits of acceptable soils for the contaminant(s) that exceeded acceptance criteria.</p>
6	<p>Rock: Blasted or excavated ledge or bedrock.</p>	<p>One test for perchlorate per 500 cy, unless Generator demonstrates that no perchlorate blasting agents were used. One geochemical characterization profile per 500 cy including Acid Base Accounting and Net Acid Generation Potential unless Generator demonstrates that the rock is not known or suspected to contain sulfide minerals.</p>
<p><b>The more conservative sampling protocol shall apply to soils that meet more than one of the above</b></p>		

Analytical results for VOCs, SVOCs, metals, PCBs, EPH/TPH, and Herbicides/Pesticides must be expressed on dry-weight basis. If a proposed shipment of soil falls into more than one category, the more conservative sampling protocol shall apply.

**3.2.5 Test Data Quality and Usability**

Test data provided for review and acceptance must be considered current. If aged data (greater than one (1) year old) is to be utilized for acceptance, then a statement from the qualified environmental professional making the submittal must be provided indicating site conditions have not changed since collection of data and that no documented releases that may impact site conditions have occurred since data was collected.

Prior to submittal, the environmental professional making the submittal must perform a quality assurance/quality control (QA/QC) evaluation of the data to document that data is representative and usable for its intended purpose. This evaluation must include a justification of the representativeness of analytical data obtained for discrete soil samples or composite samples with less than five (5) sub-samples.

**Table 1 – Acceptance Criteria**

Parameter Analyzed	Acceptance Criteria / Limit (mg/kg)
<i>MCP 14 Metals</i>	
<i>Antimony</i>	30
<i>Arsenic</i>	20
<i>Barium</i>	3,000
<i>Beryllium</i>	200
<i>Cadmium</i>	100
<i>Chromium (Total)</i>	200
<i>Chromium (III)</i>	3,000
<i>Chromium (VI)</i>	200
<i>Lead</i>	600
<i>Mercury</i>	30
<i>Nickel</i>	1,000
<i>Selenium</i>	700
<i>Silver</i>	200
<i>Thallium</i>	60
<i>Vanadium</i>	700
<i>Zinc</i>	3,000
<i>Total VOCs</i>	<10% RCS-2 or 0.1 mg/kg <sup>1</sup>
<i>SVOCs - Targets)</i>	
<i>Acenaphthene</i>	3,000
<i>Acenaphthylene</i>	10
<i>Anthracene</i>	3,000
<i>Benzo(a)anthracene</i>	40
<i>Benzo(a)pyrene</i>	7
<i>Benzo(b)fluoranthene</i>	40
<i>Benzo(g,h,i)perylene</i>	3,000
<i>Benzo(k)fluoranthene</i>	400

<i>Chrysene</i>	400
<i>Indeno(1,2,3-cd)pyrene</i>	40
<i>Dibenzo(a,h)anthracene</i>	4
<i>Fluoranthene</i>	3,000
<i>Fluorene</i>	3,000
<i>2-Methylnaphthalene</i>	80
<i>Naphthalene</i>	20
<i>Phenanthrene</i>	1,000
<i>Pyrene</i>	3,000
<b>Parameter Analyzed</b>	<b>Acceptance Criteria / Limit</b>
<i>PCBs (mg/kg)</i>	< 0.1
<i>TPH (mg/kg)</i>	<3,000
<b>Waste Characteristics</b>	
<i>pH (Corrosivity)</i>	4-11.5
<i>Reactive sulfide (mg/kg)</i>	<500
<i>Reactive cyanide (mg/kg)</i>	<250
<i>Pesticides and Herbicides (mg/kg)</i>	<10% RCS-2 or 0.05 <sup>3</sup>
<i>Free Liquid/Paint Filter Test</i>	No Free Liquid
<i>Flashpoint (Degrees F)</i>	>140
<i>Conductivity (umhos/cm)</i>	<4,000

## Notes:

1. VOCs shall be less than 10% of their RCS-2 value or 0.1 mg/kg, whichever is greater.
2. Pesticides and Herbicides shall be less than 10% of their RCS-2 value, or 0.05 mg/kg, whichever is greater

#### 4.0 SOIL SUBMITTAL PROCESS

A soil submittal package must be provided by representatives of each soil source/origin for review and approval by representatives of Nashua Road. A complete submittal package will be forwarded to:

Email: pepperellapprovals@terra-env.com

TERRA's Project Management Team will perform an initial review to establish whether the submittal is complete, and soil is appropriate for reuse as fill material at Nashua Road. If the submittal is complete, it will then be assigned an Acceptance Code and forwarded to the site LSP to complete a final review and approval.

The Reclamation Soil Sources/Origin is required to provide an LSP Opinion and is required for all proposed soil shipments that originate from RCS-1 or RCS-2 locations, acknowledging that Pepperell Reclamation Project's Acceptance Criteria are not exceeded, and the LSP Opinion shall demonstrate, pursuant to the provisions of the MCP, that the proposed soil is exempt from the notification requirements of the MCP and is not otherwise considered Remediation Waste.

Upon completion of the submittal review process and determination that soil meets acceptance criteria, an acceptance letter will be issued. The acceptance letter will reference the assigned acceptance code, will state a review of information as provided was performed and found adequate and appropriate for acceptance, the quantity of soil that is approved, any samples/soils that are not acceptable, and any other conditions applicable to the acceptance of applicable the soil. The property owner will retain soil submittal packages and approval letters.

A complete submittal package must contain the following:

- Soil/Site information, see Appendix E;
- LSP/QEP Opinion Letter stating relevant site history and use, and a statement that the soil requested for acceptance at Nashua Road meets Acceptance Criteria established in this plan;
- Appropriate shipping papers signed by an LSP/Qualified Environmental Professional and the Generator;
- Laboratory test data reports with chain-of-custody and QA/QC for the soil samples intended for reuse at Nashua Road;
- A data summary table comparing soil test data to the Nashua Road acceptance criteria; and
- Supplemental site investigation reports or information supporting acceptance of subject soil at Nashua Road.

Copies of soil submittal form is included in Appendix E. Soil acceptance criteria for use in a data comparison table are listed in Table 1.

The assigned acceptance code must be placed at the top of each page of the intended shipping papers. Trucks will not be allowed access to the Nashua Road site without an acceptance code on shipping papers.

## 5.0 ENVIRONMENTAL CONTROLS AND HEALTH AND SAFETY

### 5.1 DUST AND SEDIMENT CONTROL

The Project will utilize several best management practices (BMPs) to control fugitive dust and sediment associated with transporting, spreading, and compacting soil to fill the Site including any BMPs that are proposed in the SWPPP and required in the Town of Pepperell Order of Conditions to manage stormwater runoff at the Site. These measures are as follows:

- Re-use operations shall be suspended when winds speeds exceed 40-mile per hour or when wind carries dust beyond the property line despite implementation of dust control measures.
- An operational water truck will be on Site at all times. Water will be applied to control dust as needed to prevent visible dust emissions and offsite dust impacts.
- Truck and trailer dumping of soil will be conducted in a manner to minimize fugitive dust generation.
- Wheel washers may be installed to prevent track-out where project vehicles or equipment exit the site.
- A gravel tracking pad will be constructed as appropriate at equipment/vehicle site exit points to remove soil buildup from wheels and tracks and to assist in minimizing track-out onto public ways.
- Roads from the Site will be swept as needed to control fugitive dust and tracking of soil/sediment onto the public way.
- Erosion controls will be installed at the 100-foot wetland buffer. Erosion controls can include hay bales, sand bags, crushed stone filter berms and geotextile fabric/silt sacks. The SWPPP will provide final documentation on wetland buffer zones and runoff protection.

### 5.2 HEALTH AND SAFETY

Site Specific Health and Safety Plan (SS-HASP) will be required by the Operator to specify the types of personal protection, engineering controls, to manage physical hazards associated with soil work. No environmental monitoring will be necessary as soils are <RCS-2 and will not constitute unacceptable exposures to contaminated soil through ingestion, dermal contact, and inhalation. See Appendix B.

**6.0 SITE ACCESS, QUANTITY DETERMINATION AND SITE REJECTION OF MATERIAL**

Directions to the site From the South via Massachusetts State Roads:

- ◇ US-3 North toward the New Hampshire border.
- ◇ Use the right 2 lanes to take exit 5 for NH-111 toward Nashua/Pepperell (MA/NH 111A).
- ◇ Keep left to continue toward NH-111 West/West Hollis Street.
- ◇ Keep Right to continue to Exit 5W, follow signs for NH-111/NH-111A/Pepperell, MA and merge onto NH-111 West/West Hollis Street.
- ◇ Follow NH-111 West to MA-111 South.
- ◇ Enter the site on the left.

Directions to the site From the South via New Hampshire and Massachusetts State Roads:

- ◇ US-3 North toward the New Hampshire border.
- ◇ Use right lane to take exit 35 for MA-113 toward Tyngsborough, MA.
- ◇ Continue toward MA-111.
- ◇ Keep Right to continue to Exit 5W, follow signs for NH-111/NH-111A/Pepperell, MA and merge onto NH-111 West/West Hollis Street.
- ◇ Follow MA-113 West, turn right onto MA-111 North.
- ◇ Follow MA 111 North to 161 Nashua Road in Pepperell
- ◇ Enter the site on the left.

Trucks will be weighed at the on-site certified scale to determine the quantity of soil delivered. Access will be through the access road into the Site, and roadways will be maintained for truck access.

The owner will maintain the appropriate equipment year-round to spread, dry, process, and compact the soils.

Loads deemed unacceptable by the Facility Operations Personnel will be rejected from the site. No additional loads will be accepted from the source in question until the Generator, Generator's LSP, and the contracting party provide an appropriate explanation and assurance that no additional, similar loads will be delivered to the project site.

## 7.0 QUALITY CONTROL/QUALITY ASSURANCE

For quality control/quality assurance purposes, Mass Composting Group Inc. (MCGI) proposes to contract with an independent third-party consultant to once monthly randomly collect and test a grab sample to confirm soil as received meets established Acceptance Criteria. Soil will be randomly obtained during off-loading of trucks at the Site and testing parameters will be as required by MassDEP and identified in the 161 Nashua Road Project's ACO.

During each inspection, at a minimum, the Inspector shall:

- Observe the practices involved in the receipt and/or placement of soil and fill materials at the Property, to the extent that such activities are occurring;
- Inspect the soil and fill materials that are being unloaded and/or placed/recently placed during the inspection, if any, and inspect all areas of the Property where soil and fill materials have been placed since the previous inspection;
- Collect a grab sample of any area or load of soil that appears to be contaminated, based upon staining, discoloration, odors, or PID readings. If no area or load appears to be contaminated, collect a composite soil sample from a minimum of one load of soil being delivered or that had been delivered to the Property since the previous inspection, and submit the collected sample to a laboratory for the soil profile analyses specified in the Soil Management Plan. The composite sample shall consist of a minimum of 5 to 10 subsamples from the load(s) under evaluation.
- Inspect all erosion control measures including but not limited to, silt fence, hay bales, temporary basins and swales.

The Independent Third Party inspector shall prepare an inspection report documenting the findings for each inspection and shall submit such report to the Facility Operators and MassDEP on or before the 21st of the month following the month during which testing was performed.

Loads or areas of soil selected for sampling performed by the Inspector will be segregated pending receipt of test results. Should the test results indicate that contaminants detected in soil are not below all Acceptance Criteria, the Material Source, Generator and/or party contracting for soil placement shall be immediately notified of the need to remove the soil from the site. If the Generator and/or party contracting for soil placement fail to remove unacceptable soil within 7 days of notification then Pepperell Reclamation Project Team will remove the soil from the project site within 14 days of receipt of the laboratory results for proper off-site management or disposal. On behalf of the owner, TERRA will seek recovery from the Source, Generator and/or party contracting for soil placement for all costs associated with removal of any unacceptable soil from the Pepperell Reclamation Project site.

Other sampling and testing may be performed by Reclamation Project should soil as received appear to be inconsistent with the characterization data and information used to obtain acceptance.

Soil deemed not meeting Acceptance Criteria due to debris, odors, or other observations at the time of arrival at the Reclamation Project site will not be accepted and will be reloaded into the truck upon which it arrived and reject the load. No additional loads will be accepted from that source until appropriate explanation and assurance that no additional similar loads will be delivered to the Sewell Street Reclamation Project site is provided by the Generator, Generator's LSP, and the party contracting delivery of soil to the Reclamation Project site.

**8.0 MONTHLY REPORT SUBMITTALS TO MASSDEP**

Monthly reports shall be submitted electronically to MassDEP by the 21st of each month, using eDEP Transmittal Form BWSC 126, Section B (2), under a Release Tracking Number (RTN) that will be issued by MassDEP for the site.

The monthly reports shall include the following:

1. The total cubic yards/tons of soil received by the site in the previous month; the total cubic yard/tons of soil received by the site since the signing of the ACO; and the estimated total tons of capacity remaining at the site;
2. A tabulation showing the origin/addresses of the sources of soil received during the previous month:
  - a. for each address, the total cubic yards/tons received for the month
  - b. for each address, affirmation that the required PID screening at 1 sample/50 yd<sup>3</sup> was conducted at the point of generation, and affirmation that soil with headspace concentrations > 5 ppmV was either rejected or approved after further evaluation by an LSP.
3. A notation on any problems or issues experienced during the previous month; any noteworthy activities expected in the upcoming month, and any significant changes in the project design, schedule, or on-property contact persons
4. A report by the Independent Third Party Inspector, to include:
  - Notations on any practices that are not compliant with the SMP and/or Consent Order;
  - Notations on whether solid or hazardous waste, stained soils, odors, or sheen were observed at the fill site;
  - Notations on airborne dust and dust control measures employed;
  - Specific recommendations, if any, for repair, replacement or changes to erosion control measures at the Property;
  - Status updates of actions taken by Respondent to implement the recommendations made in prior inspection reports, if any; and
  - The results and laboratory analytical report(s) for the soil sample(s) collected during the inspection, including, but not limited to the following, providing that the testing results for a given inspection may be submitted in the next monthly report if not available for submittal with the Inspection report:
    - ❖ the analytical results in a tabular format comparing the results to the Acceptance Criteria identified in the Soil Management Plan.
    - ❖ a clear statement regarding whether any of the Acceptance Criteria were exceeded.
    - ❖ the laboratory analytical reports and chain of custody documentation
5. Any other information or data deemed to be significant and/or noteworthy by the Facility Owner or Project LSP.

**9.0 ADDITIONAL CONSIDERATIONS, RESTRICTIONS AND/OR LIMITATIONS**

The Project Owner proposes the following Reclamation Project considerations, restrictions and/or Limitations.

1. Reclamation soil will not enter the pit before 6:30 A.M., and the operation will cease for the day by 5:00 P.M Monday through Friday. Acceptance of reclamation soils on weekends and after hours will be proposed to the Town for their consideration.
2. Nashua Road will be kept free of debris and soil. Roadways and entrance will be maintained at all times.
3. Maintain onsite dust control at all times.
4. Access road to the operation to be surfaced with bituminous concrete or similar material and will be a minimum of 50 ft. off Nashua Road.
5. All perimeter slopes will be established at a 3:1 ratio, and properly restored with top-soil and seeding during the progress of the reclamation operation.
  - a. Grading, restoration of top-soil, and seeding of areas will be completed as final grades are met and as soon as weather and soil conditions permit.
6. To the greatest extent possible proposed finish grades in the reclamation area through the use of temporary grade stakes to aid in inspections of the operation by the Town.
7. TERRA Environmental will provide the Selectmen and their agents monthly inspections reports as discussed in this Plan.
8. The Selectmen and their agents shall be free to inspect the premises at any time.
9. Monthly MassDEP Reclamation reports will be provided to the Town
10. Owner to provide the Town with a Certificate of Insurance naming the Town as additional insured.

**FIGURES**

- Figure 1**      **MassDEP Phase I Site Assessment Map**
- Figure 2**      **Topographic Map**
- Figure 3**      **Assessor's Map**
- Figure 4**      **Zoning Map**
- Figure 5**      **MassGIS (Zone II) Map**
- Figure 6**      **Groundwater Monitoring Wells**
- Figure 7**      **Wetlands and Buffers**

**FIGURE 1      MASSDEP PHASE I SITE ASSESSMENT MAP**

# MassDEP - Bureau of Waste Site Cleanup

## Phase 1 Site Assessment Map: 500 feet & 0.5 Mile Radii

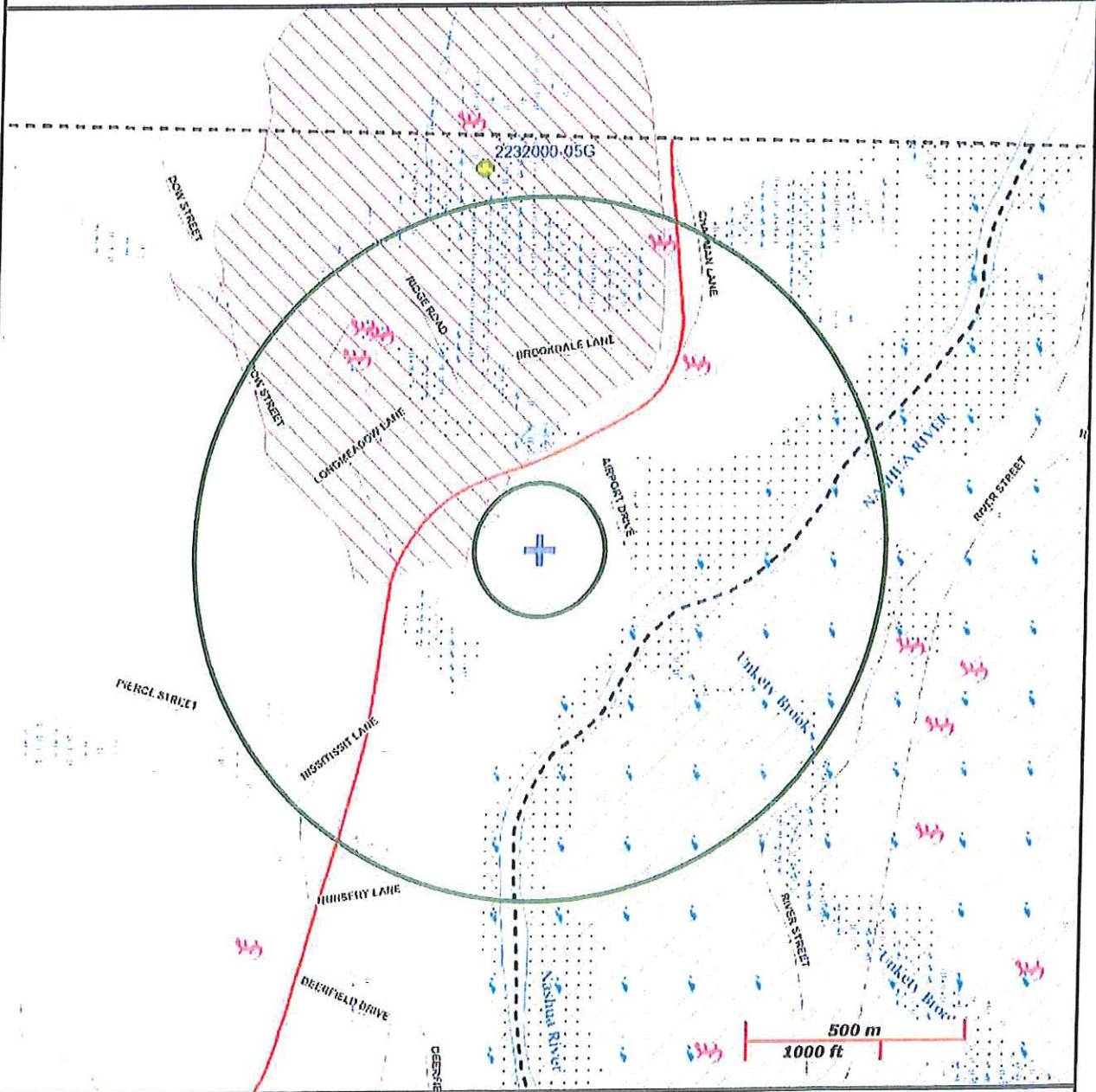
**Site Information:**  
 101 NASHUA ROAD  
 161 NASHUA ROAD PEPPERELL, MA

**NAD83 UTM Meters:**  
 4730068mN, 280517mE (Zone: 19)  
 March 8, 2018

The information shown is the best available at the date of printing. However, it may be incomplete. The responsible party and LSP are ultimately responsible for ascertaining the true conditions surrounding the site. Metadata for data layers shown on this map can be found at:  
<http://www.mass.gov/mgjs/>



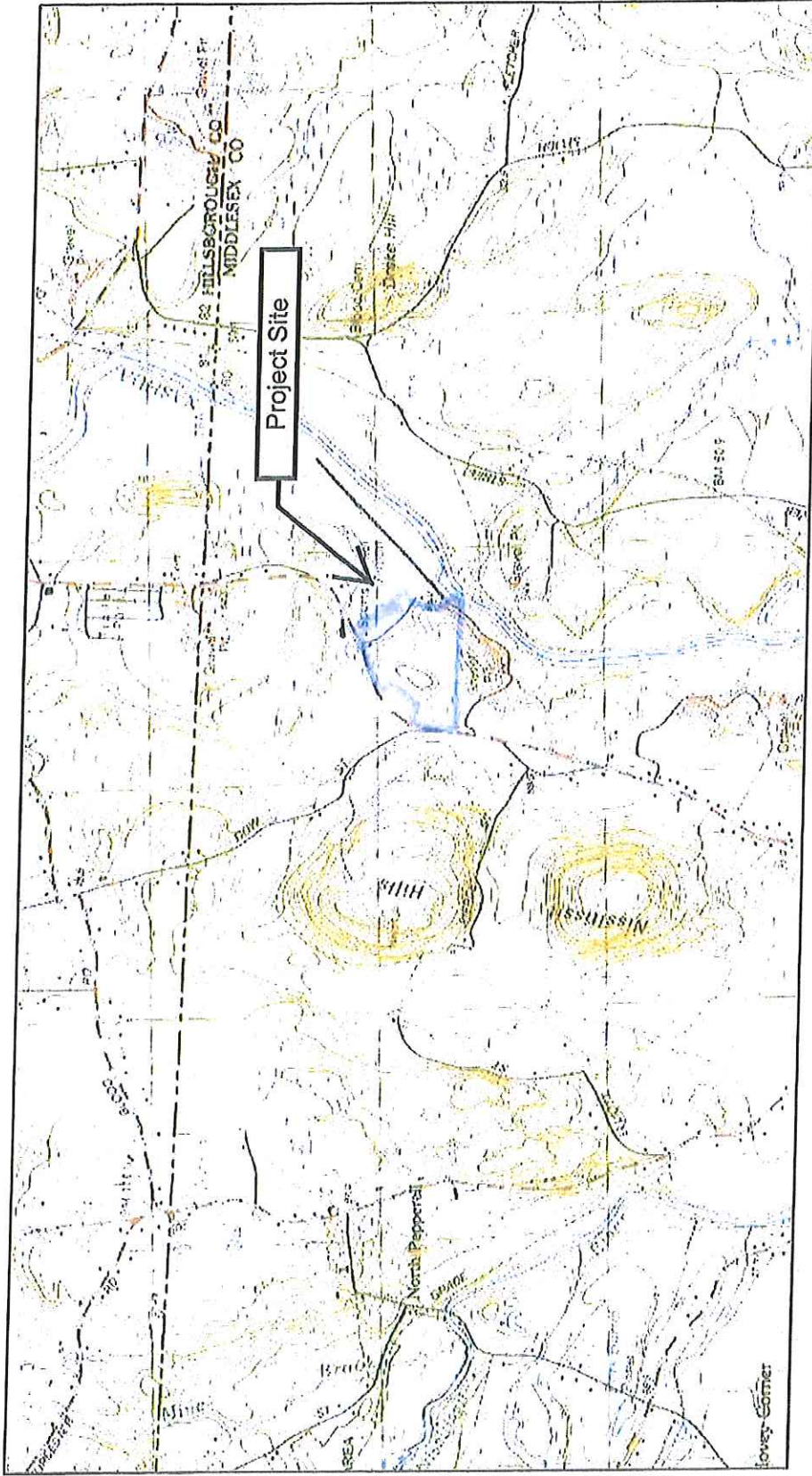
**MassDEP**  
 Commonwealth of Massachusetts  
 Department of Environmental Protection



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail	PWS Protection Areas: Zone II, IWPA, Zone A
Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct	Hydrography: Open Water, PWS Reservoir, Tidal Flat
Basins: Major, PWS; Streams: Perennial, Intermittent, Man Made Shore, Dam	Wetlands: Freshwater, Saltwater, Cranberry Bog
Aquifers: Medium Yield, High Yield, EPA Sole Source	FEMA 100yr Floodplain; Protected Open Space; ACEC
Non Potential Drinking Water Source Area: Medium, High (Yield)	Est. Rare Wetland Wildlife Hab; Vernal Pool: Cert., Potential
	Solid Waste Landfill; PWS: Com GW, SW, Emerg., Non-Com

FIGURE 2 TOPOGRAPHIC MAP

Topographic Map



Site Address:	161 Nashua Road, Pepperell, MA
MassDEP RTN:	N/A
Base Map:	MassGIS (USGS Topographic Quadrangles)
Prepared by:	TERRA Environmental, LLC

**FIGURE 3      ASSESSOR'S MAP**



FIGURE 4 ZONING MAP

# Pepperell, MA Official Zoning Map:




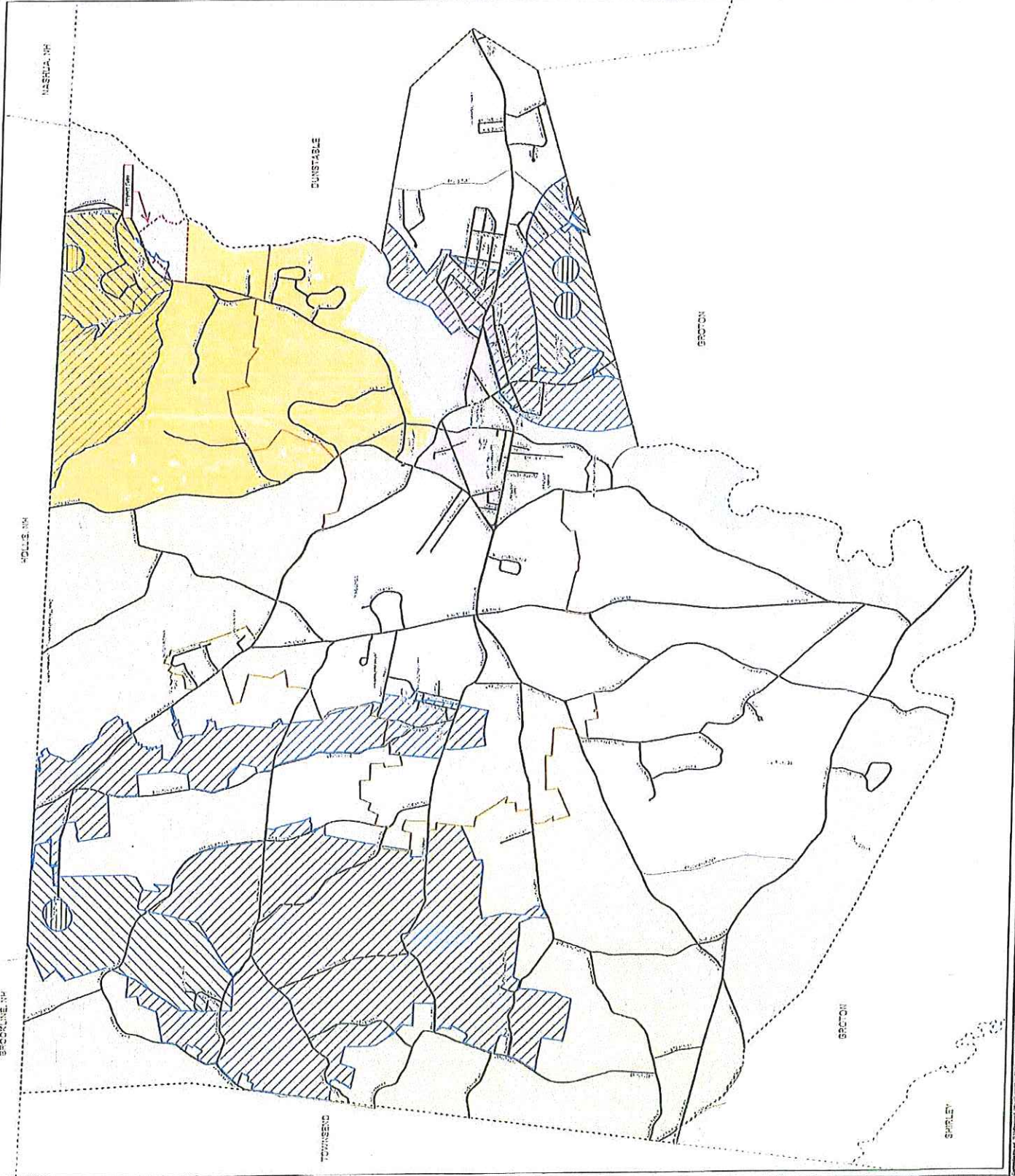
**May 6, 2014**

**Legend**

- Community Boundaries
- Public Ways
- Laid Out and Accepted
- Not Laid Out but Accepted
- Parcel Boundaries
- Water
- Streams & Rivers
- Lakes, Ponds & Reservoirs
- Zoning Districts**
- Commercial
- Industrial
- Recreation Residence
- Rural Residence
- Suburban Residence
- Town Residence
- Urban Residence
- Zoning Overlay Districts**
- Sewer
- Aquifer-Watershed Protection Zone (AWPZ)
- Water-Source Protection Zone (WSPZ)
- Well Protection Zone (WPZ)

0 0.125 0.25 0.5 Miles

DATA SOURCES: MASSGIS, MASSDOT, SEA  
 CONSULTANTS: H&M and the Town of Pepperell  
 DISCLAIMER: The information depicted on this map is  
 for informational purposes only. It is not intended  
 and is not a substitute for local government regulatory  
 enforcement or parcel-based analysis.  
 PREPARED BY:  
 Town of Pepperell GIS  
 May 2014  
 One-Plan Sheet  
 Project # 01403

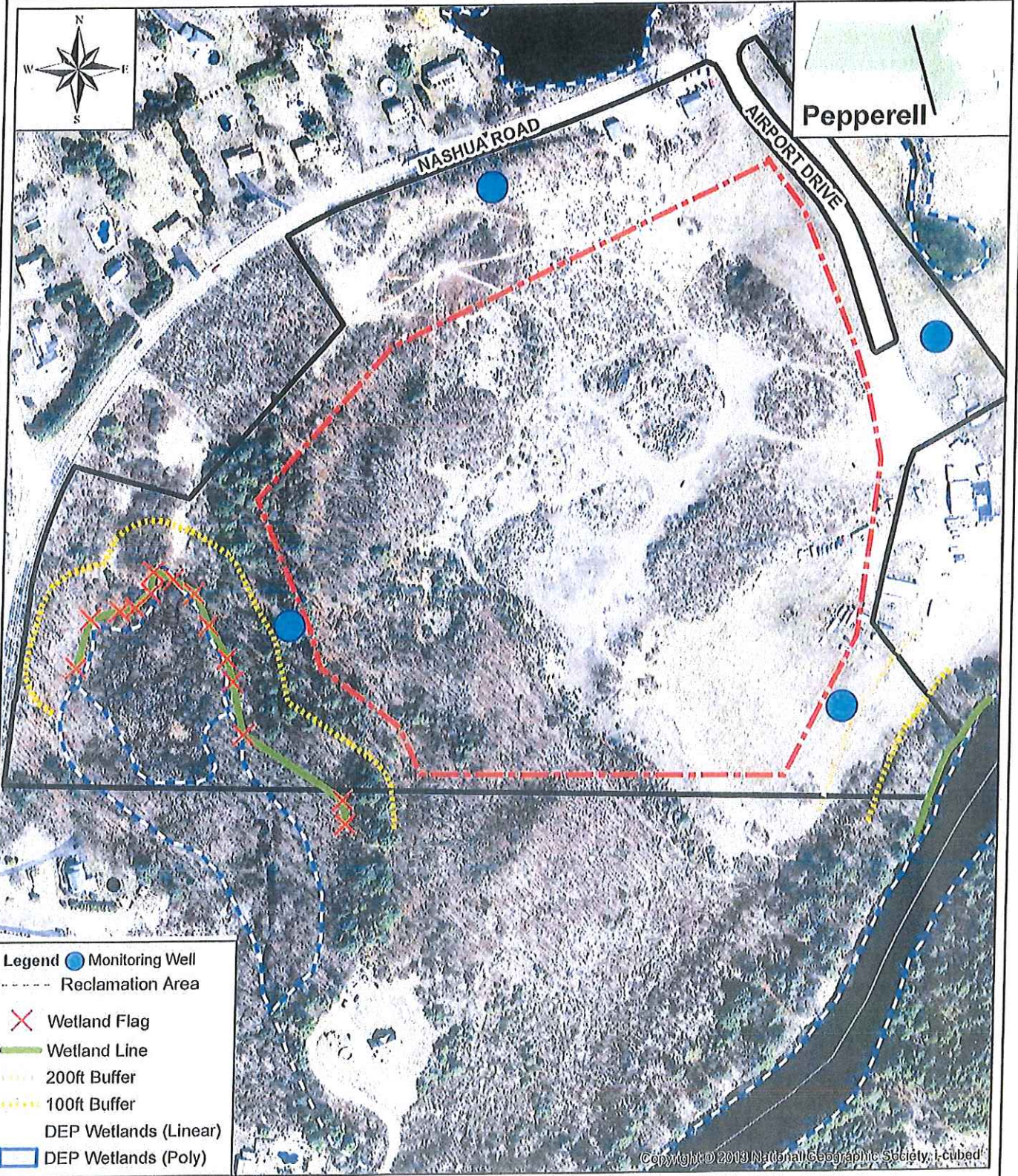
**FIGURE 5      MASSGIS (ZONE II) MAP**

151 Nashua Road, Peppersell, MA



- Deep Wetlands Declared Wm Outlines
  - Barrier Beach Swam
  - Barrier Beach-Deep Marsh
  - Barrier Beach-Wetland Swamp Mixed Trees
  - Barrier Beach-Coastal Beach
  - Barrier Beach-Coastal Dune
  - Barrier Beach-Marsh
  - Barrier Beach-Salt Marsh
  - Barrier Beach-Straw Swamp
  - Barrier Beach-Wetland Swamp Coniferous
  - Barrier Beach-Wetland Swamp Deciduous
  - Bay
  - Coastal Bar - Dune or Salt Dune
  - Coastal Beach
  - Coastal Dune
  - Crabapple Bay
  - Deep Marsh
  - Barrier Beach-Oak Water
  - Open Water
  - Pokey Interlands Shrub
  - Salt Marsh
  - Shallow Marsh Meadow or Flea
  - Shrub Swamp
  - Tidal Flat
  - Wetland Swamp Coniferous
  - Wetland Swamp Deciduous
  - Wetland Swamp Mixed Trees
  - Tax Patches
- Detailed Features
- Structures
- NHESP Priority Habitats at Risk Species
- Wetlands
- Zone Ia
- Zone IIa
- Zone IIb
- Google 2015-2017 Orthomosaic
- MassGIS Shoreline System 02
- MassGIS Topographic Features System 01

**FIGURE 6      MONITORING WELL LOCATIONS**



- Legend**
- Monitoring Well
  - - - - Reclamation Area
  - × Wetland Flag
  - Wetland Line
  - ⋯ 200ft Buffer
  - ⋯ 100ft Buffer
  - DEP Wetlands (Linear)
  - DEP Wetlands (Poly)

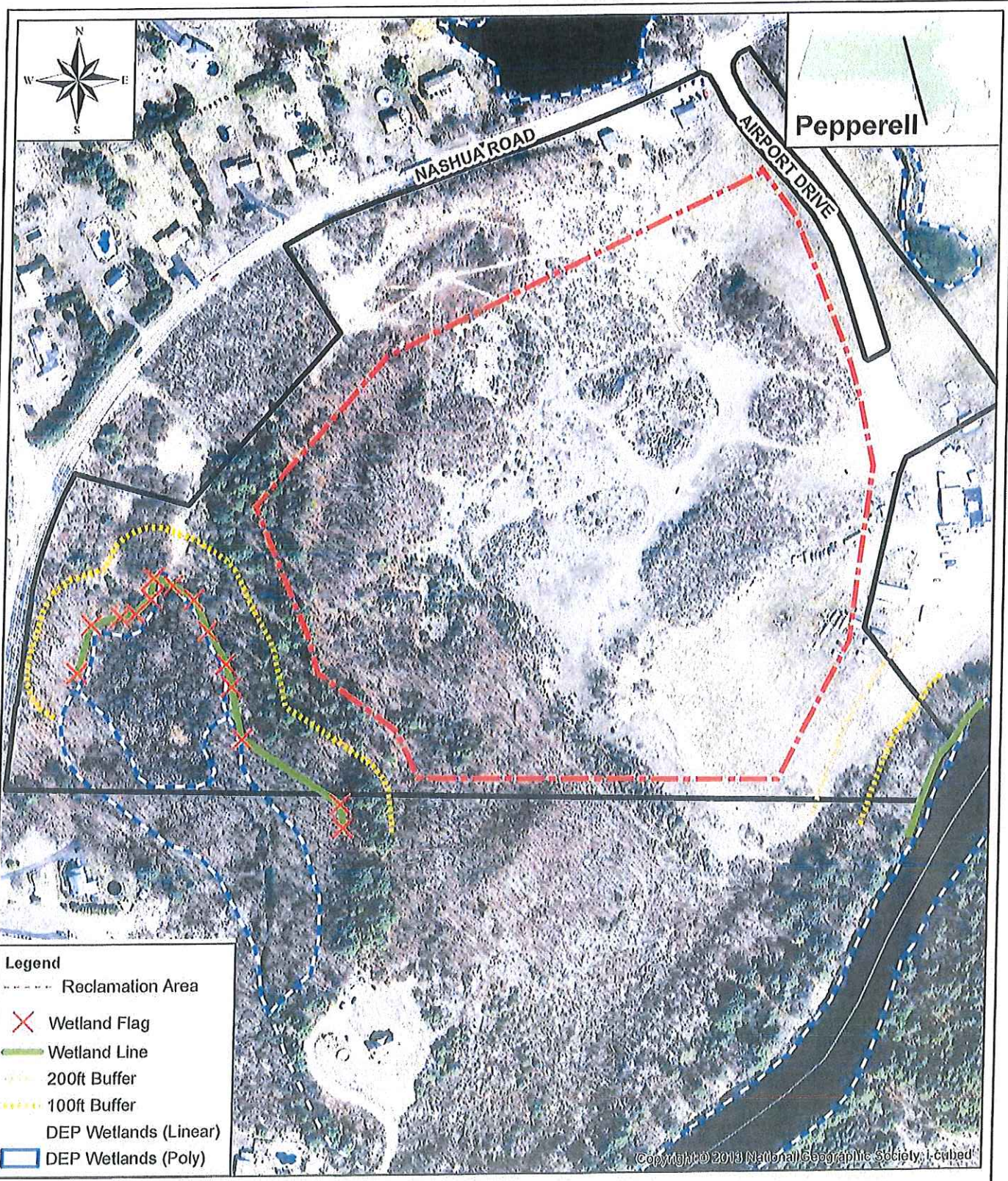
**Oxbow Associates, Inc.**  
 Wetlands, Delineation and Permitting  
 Wildlife Studies • Herpetology  
 Vernal Pool Ecology  
 P.O. BOX 971  
 ACTON, MASSACHUSETTS 01720  
 PHONE: (978) 929-9058  
 FAX: (978) 635-1897  
 WEB: www.oxbowassociates.com

1:3,000  
 1 inch = 250 feet  
 0 500  
 Feet

**Figure 6 Proposed Monitoring Wells Locations**  
**161 Nashua road**  
**Pepperell, MA**

Base Map-Wetlands Buffer/2013 Orthophotograph

**FIGURE 7      WETLANDS AND BUFFERS**



- Legend**
- Reclamation Area
  - ✕ Wetland Flag
  - Wetland Line
  - ..... 200ft Buffer
  - 100ft Buffer
  - DEP Wetlands (Linear)
  - DEP Wetlands (Poly)

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**Figure-2 Proposed Reclamation Area**  
**161 Nashua road**  
**Pepperell, MA**

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 PHONE: (978) 929-9038  
 FAX: (978) 929-1832  
 WEB: www.oxbowassociates.com

1:3,000  
 1 inch = 250 feet  
 0 250 500  
 Feet

Base Map-Wetlands Buffer/2013 Orthophotograph

**DRAWINGS – CONSTRUCTION**



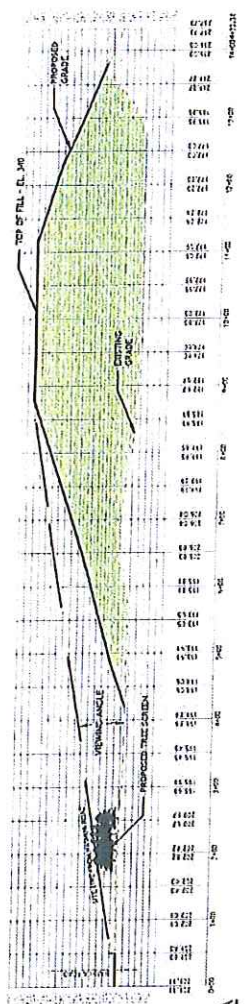
GRAPHIC SCALE  
0 10 20 30 40 50 60 70 80 90 100  
FEET

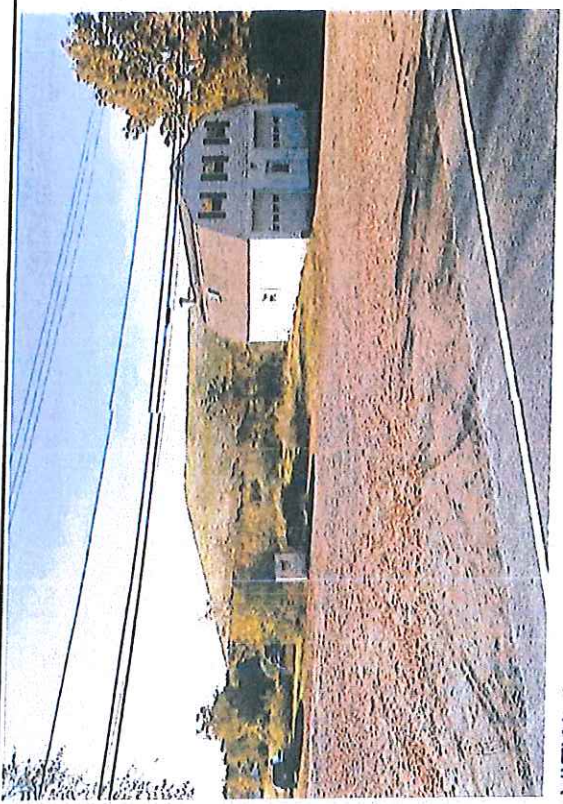
163 NASHUA ROAD  
 GRADING STUDY  
 163 NASHUA ROAD  
 TERRILL, PASCARETTI

DATE: 01/11/2011

RECLAMATION  
 GRADING  
 SECTIONS

CD002





VIEW -A



VIEW -B



LANDFILL VIEWS KEYPLAN



VIEW -C

APPENDIX A OXBOW ASSOCIATES ENDANGERED SPECIES AND WETLANDS LETTER



## OXBOW ASSOCIATES, INC.

Wetlands Delineation and Permitting • Wildlife Studies • Herpetology • Vernal Pool Ecology

---

January 29, 2018

Mr. Bill Scott  
Mass Composting Group, Inc  
161 Nashua Rd.  
Pepperell, MA 01463

**Re: Wetland Resource Area Evaluation  
161 Nashua Road, Pepperell, MA**

Dear Mr. Scott:

In response to your request, Oxbow Associates, Inc. (OA: specifically M. Charpentier) reviewed the above referenced site with specific regard to wetland resource areas on January 9<sup>th</sup> 2017, with approximately 8 inches of snow on the ground, and a subsequent visit on January 24<sup>th</sup> by which time most snow had melted on the site. This evaluation was conducted in accordance with standard methodology for delineating vegetated wetlands under the Massachusetts Wetlands Protection Act (MGL Ch. 131, §40; the "Act"), and the Town of Pepperell Wetland Protection Bylaw (the "Bylaw").

### **Existing Conditions and Wetland Resource Areas**

This site is located east of Nashua road (Route 111), south of Skydive Pepperell, and west of the Nashua River. The property consists of a single parcel, encompassing approximately 44.5 acres predominantly composed of mixed deciduous forest, early successional forest, maintained fields, and partly overgrown gravel pit. The parcel is largely undeveloped, with the exception of an auto body shop and garage adjacent Nashua Road. The site contains a Bordering Vegetated Wetland (BVW: Series A), a Riverfront area with associated Bank (Series B) whose wetland buffer and Riverfront area buffer extend onto the site, as well as two offsite Bordering Vegetated Wetlands which extend onto the site. The positions of the latter two were traced onto the attached map (Figure 1) using the 2009 Department of Environmental Protection Wetlands Polygons. Additionally, portions of the site exist in as Bordering Land Subject to Flooding (BLSF) within 100-year flood zones associated with the Nashua River and the BVW associated with the site.

OA examined the soil conditions (representative upland soil profile below) and vegetation and delineated one section of a Bordering Vegetated Wetland (BVW: 310 CMR 10.55) with 14 blue plastic flags in a single series (OA A1-A13, with A5B between A5 and A6). The wetland is composed of swamp/shrub swamp, it lacks an inlet and flows off the property from north to south, via an unnamed stream, draining into the Nashua River 0.25 miles away.

One upland soil profile, located 2 feet northeast from flag A5B, was documented in detail. The mapped soil type is Quonset sandy loam (U.S. Dept. of Agriculture, Web Soil Survey).

O: 1-0" organic debris  
A: 0-10" 10 YR 3/3  
Bw: 10-18" 2.5 Y 5/4  
18" refusal/rock, unable to collect samples deeper

This soil profile does not qualify as hydric because the chroma of the Bw horizon is too high to indicate frequent saturation and mineral leaching.

Vegetation within the BVW includes red maple (*Acer rubrum*), winterberry (*Ilex verticillata*), royal fern (*Osmunda regalis*), and various sedges (*Carex* spp.) and grasses (family Poaceae). Upland vegetation includes red oak (*Quercus rubra*), white oak (*Quercus alba*), eastern white pine (*Pinus strobus*), gray birch (*Betula populifolia*), cherry birch (*Betula lenta*), autumn olive (*Elaeagnus umbellata*), sweet-fern (*Comptonia peregrina*), glossy false buckthorn (*Frangula alnus*), and several species of poplar (*Populus* spp).

Additionally, OA delineated a section of Bank (Bank 310 10.54) along the Nashua River with 4 blue plastic flags (OA-B1 to OA-B4). This is also the estimated annual high flow, which constitutes the beginning of the 200-foot Riverfront Area (10.58). In this case, the delineated River is coincident with Bank and its associated 100 foot buffer zone. OA also estimated off-site wetlands, which have associated buffer zones that extend onto the subject property. There are two off site wetlands: a wet meadow east of Airport Drive and a pond, north of Nashua Road.

### **Regulatory Implications and Recommendations**

The pertinent jurisdictional resource areas located on the subject property is BVW, Bank, Bordering Land Subject to Flooding (BLSF: 310 CMR 10.57), and Riverfront Area. These wetlands boundaries are also protected under the wetlands bylaw under Town of Pepperell Wetlands Protection Bylaw (Article 2). The BVW and Bank have a 100 foot buffer zone and the Riverfront is a 200-foot zone extending from the delineated boundary. Furthermore, any work within the A or AE 100-year flood zone is also subject to the performance standards including a prohibition of any fill or structures within the BLSF. The Town of Pepperell Wetlands Protection Bylaw requires a 50 foot wide undisturbed, vegetated strip of naturally occurring plant species maintained between wetland resource areas.

According to the Massachusetts Natural Heritage and Endangered Species Program (NHESP), currently there are no certified vernal pools, or potential vernal pools on the property. A portion of the site, adjacent the Nashua River, is mapped within Priority and Estimated Habitat of rare species (MassGIS, 2017). We recommend filing an Information Request (\$50 fee) with MA NHESP to determine which species are associated with this section of the Nashua River. The result of this request will inform us as to if the NHESP may regulate the entire property under the MA Endangered Species Act, or limit their review to within the mapped habitat shown on MassGIS.

The wetland delineation is OA's Interpretation of the wetland boundary and it must be reviewed and approved by the Pepperell Conservation Commission (PCC) before it is the legally affirmed boundary. If work is proposed within the 100-foot buffer zone to off-site wetlands, the PCC may require gaining permission and delineating the wetlands. However, this decision is up to their discretion. The GIS/GPS map we have provided can be used as a planning tool, but OA recommends you work with a Professional Land Surveyor and Professional Engineer to determine the exact extent of the wetlands for site specific permitting. The survey should provide information to determine the exact distance between the wetland resource areas, existing structures, treeline, topography, floodplain, and the proposed limit of work. Floodplain must include both the zone A and AE (with reference elevation).

Any activity proposed within any of the field-delineated wetland boundaries is subject to review by the PCC as well as the Army Corps of Engineers (ACOE) and may require filing a 401 Water Quality Certificate with the Department of Environmental Protection (DEP). Any activity proposed within 100 feet of the BVW boundary is subject to review by the PCC and the DEP.

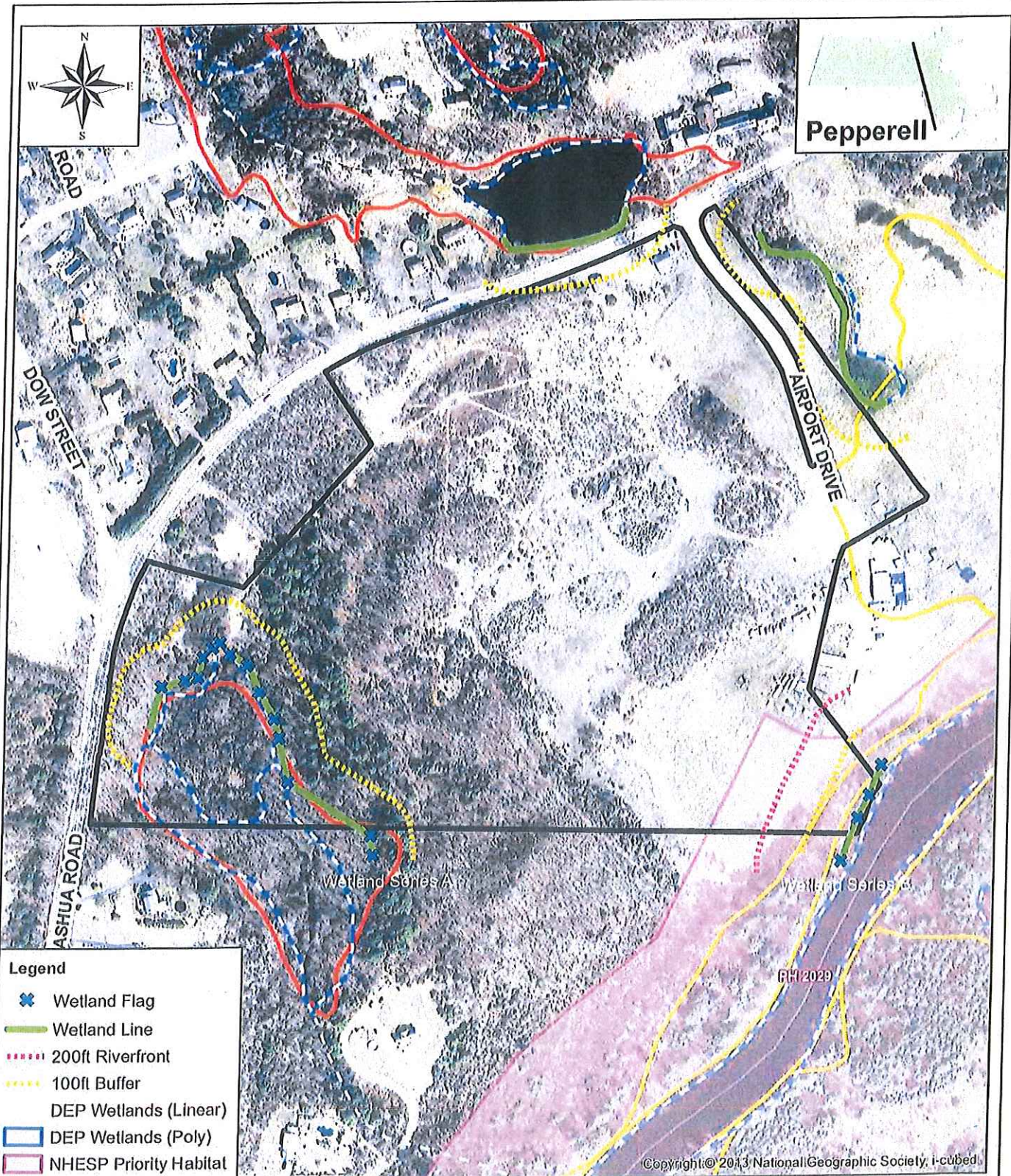
If you have any questions, please do not hesitate to contact Scott Smyers at 978-929-9058 ext. 3 or Matt Charpentier at ext. 2.

Sincerely,



Matthew Charpentier  
Botanist/Environmental Scientist I

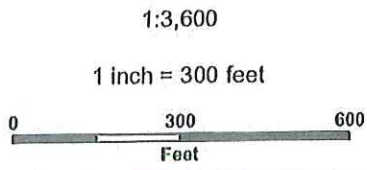
encs.



- Legend**
- Wetland Flag
  - Wetland Line
  - 200ft Riverfront
  - 100ft Buffer
  - DEP Wetlands (Linear)
  - DEP Wetlands (Poly)
  - NHESP Priority Habitat

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**Oxbow Associates, Inc.**  
 Wetlands Delineation and Permitting  
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 PHONE: (978) 929-5058  
 FAX: (978) 815-1897  
 WEB: www.oxbowassociates.com



**Figure 1. Wetland Delineation  
 2013/2014 Orthophotograph  
 161 Nashua road  
 Pepperell, MA**

APPENDIX B CORRESPONDENCE TIMELINE WITH TOWN OF PEPPERELL

Timeline

- **December 5, 2017:** Representatives from MCGI met with certain Town representatives;
- **February 11, 2018:** Mr. David Burton, the President of MCGI, met with and distributed a letter describing the Reclamation Project to various Town officials.
- **June 28, 2018:**
  - MCGI submits this Soil Management Plan to Town of Pepperell and requests meeting with the Town of Pepperell's Town Administrator and Town Planner as well as the Selectmen at the earliest mutually-convenient date to discuss the Reclamation Project and to answer any questions or respond to any concerns regarding the Reclamation Project.
  - As of the date of this Soil Management Plan, representatives from the Town of Pepperell have not directly contacted representatives from MCGI, and/or Mr. David Burton to discuss the project.
- *Additional Correspondence(s) to be added.*

APPENDIX C STORM WATER POLLUTION PREVENTION PLAN / ENOI (TO BE ADDED)

APPENDIX D GROUNDWATER SAMPLING RESULTS (TO BE ADDED)

APPENDIX E SOIL PROFILE PACKAGE INFORMATION  
NASHUA ROAD SOIL SUBMITTAL FORM

<b>Generator</b>	
<b>Project</b>	
<b>MCP Tracking Number (if applicable)</b>	
<b>Quantity of Soil</b>	
<b>Description of Soil</b>	
<b>Sampling Frequency</b>	
<b>Shipment Schedule</b>	

On the basis of a due-diligence investigation of site history and use, the generator must provide a "yes" or "no" indication for each of the following, based on a preponderance of the evidence:

- Yes  No  Tannery operations
- Yes  No  Textile manufacturing
- Yes  No  Foundry operations
- Yes  No  Dry Cleaning operations
- Yes  No  Coal Gasification operations
- Yes  No  Machine Shop activities
- Yes  No  Salvage/Junk Yard operations
- Yes  No  Petroleum Storage facility (more than household quantities)
- Yes  No  Plating/metal finishing operations
- Yes  No  Chemical Production operations
- Yes  No  Circuit Board Manufacturing

A "yes" or "no" indication must also be provided for the following conditions at the site of generation:

- Yes  No  Herbicide or Pesticide were used or likely used, stored, or disposed
- Yes  No  Urban Fill Soils are present
- Yes  No  Boston Blue Clay is present

- Yes  No  Soil with elevated natural background of Arsenic are present
- Yes  No  The site was a dumping ground for dredge spoils, fill soil, ash, or other waste
- Yes  No  The site is classified as RCS-1
- Yes  No  Soil samples were obtained at the site and point of generation and screened at a minimum frequency of 1 sample/50 cubic yards using the MassDEP Jar Headspace procedure, with priority given to any soil exhibiting signs of contamination (e.g., staining or odors)

**ATTACHMENTS**

- ◇ Site sketch showing soil origin, soil stockpiles, and location of all soil samples
- ◇ Laboratory Data
- ◇ Analytical Data table comparing all applicable results to the Nashua Road Acceptance Criteria provided.
- ◇ Signed & Stamped MSR is provided
- ◇ Field screening data used to support chemical composition provided.
- ◇ LSP Opinion Letter including description of site, contaminants, current and former site usage/history.

---

APPENDIX F ADMINISTRATIVE CONSENT ORDER WITH MASSDEP (TO BE ADDED)



# TOWN OF PEPPERELL

BOARD OF SELECTMEN/TOWN ADMINISTRATOR

September 24, 2018

Robert Kelly  
Building Inspector / Zoning Officer  
Town of Pepperell  
Town Hall  
One Main Street  
Pepperell, MA 01463-1644

Re: Zoning Determination Request; 161 Nashua Road

Dear Mr. Kelly:

At its meeting on September 24, 2018, the Board of Selectmen voted to submit this zoning determination request to your office, in accordance with M.G.L. c. 40A, Sec. 7. The Board seeks a determination as to whether:

1. The soil reclamation project proposed by Mass Composting Group, Inc., described in its June 28, 2018 proposal to the Town, with Attachments A-C, qualifies as a "commercial dumping ground" as defined in Section 10000 of the Zoning Bylaw; and
2. Whether a commercial dumping ground is an allowed use at the property located at 161 Nashua Road under Appendix A (Table of Principal Uses) of the Zoning Bylaw.

Thank you for your time and attention to this matter.

Sincerely,

Roland P. Nutter, Chair

Encl.

1 Main Street, Pepperell, MA 01463  
(978)433-0333 FAX (978)433-0335



Town of Pepperell  
**INSPECTOR OF BUILDINGS**  
1 Main Street  
Pepperell, Massachusetts 01463-1644  
(978) 433-0329 Fax (978) 433-0338

October 9, 2018

Board of Selectmen  
Roland Nutter, Chair  
1 Main Street  
Pepperell, MA 01463

Dear Mr. Nutter,

I received your letter dated September 24, 2018 requesting a zoning determination concerning a proposed soil reclamation project proposed by Mass Composting Group Inc. at 161 Nashua Road. I understand that the Board of Selectmen seeks a determination as to whether:

1. The soil reclamation project proposed by Mass Composting Group, Inc., described in its June 28, 2018 proposal to the Town, with Attachments A-C, qualifies as a "commercial dumping ground" as defined in Section 10000 of the Zoning Bylaw; and
2. Whether a commercial dumping ground is an allowed use at the property located at 161 Nashua Road under Appendix A (Table of Principal Uses) of the Zoning Bylaw.

In response to your letter, I make the following comments:

1. Section 10000 of the Zoning Bylaw defines a "Commercial Dumping Ground" as "A disposal site for garbage, rubbish, the deposit of demolition materials or other refuse or as a site for a refuse disposal incinerator."
2. "Refuse" is defined in Webster's II New Riverside Dictionary as "matter thrown away or rejected as worthless trash."
3. The Table of Principal Uses, Appendix A, of the Zoning Bylaw lists a commercial dumping ground as not being allowed in any zoning district in the Town of Pepperell.
4. As a point of information, Section 9222 of the Zoning Bylaw does not allow the Board of Appeals to grant use variances.
5. Based upon Mass Composting's June 28, 2018 proposal to the Town, the company proposes to use the property at 161 Nashua Road to deposit unwanted or unusable soil removed from remote construction projects for no purpose other than the permanent storage of the material.

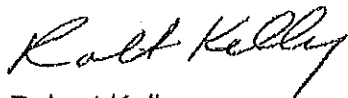
6. In a 1996 Land Court case involving Mass Composting, a prior use of the 161 Nashua Road property was determined to be a "Manufacturing" use allowed at the site as of right under the Zoning Bylaw, and not a Commercial Dumping Ground. See Town of Pepperell v. Mass Composting Group, Inc., Miscellaneous Case. No. 197658 (1996). In that case, Mass Composting proposed using the site as an "organic materials composting project" where various organic waste products would be brought onto the site and processed indoors to create compost to be sold for off-site use. In finding that the composting use qualified as Manufacturing and not a Commercial Dumping Ground, the Land Court decision noted that:

"[I]f the project constitutes a manufacturing use it is not also a commercial dumping ground, as 'dumping ground' implies a depository for unwanted materials. See Webster's New World Dictionary ('dump' is defined as 'to throw away (garbage, rubbish, etc.),' and 'ground' as 'any particular piece of land, esp. one set aside for a specified purpose'). The project's purpose is to take a raw material and produce humus through a composting process. All processing activities would occur in a fully enclosed building. The raw material and the finished product--both valued by [Mass Composting] would not be stored outdoors on the ground... The finished product would be sold and used by consumers at places remote to locus."

7. Unlike the proposed composting use at issue in the 1996 Land Court case, the soil reclamation use proposed by Mass Composting would be "a depository for unwanted materials," consisting of taking unwanted materials and storing them permanently outdoors on the ground.

Based upon the forgoing, it is my determination that Mass Composting's use would qualify as a Commercial Dumping Ground because the proposed operation would use the property at 161 Nashua Road as a depository of otherwise unwanted or unusable soil removed from remote construction projects, for no purpose other than the permanent storage of the material. Under the Zoning Bylaw's Table of Use Regulations, Mass Composting's proposed use is prohibited at 161 Nashua Road.

Sincerely,



Robert Kelly  
Zoning Officer

COMMONWEALTH OF MASSACHUSETTS  
LAND COURT  
DEPARTMENT OF THE TRIAL COURT

MIDDLESEX, ss.

MISCELLANEOUS CASE  
NO. 197658

TOWN of PEPPERELL, Acting by  
its Board of Selectmen, and its  
Board of Health, and its  
Building Inspector

Plaintiff

vs.

MASS COMPOSTING GROUP, INC.,  
and the COMMISSIONER of the  
MASSACHUSETTS DEPARTMENT of  
ENVIRONMENTAL PROTECTION,

Defendants

D E C I S I O N

Defendant and Plaintiff-in-Counterclaim Mass Composting Group, Inc. (MCGI), seeks determinations under G. L. c. 240, § 14A, that it has a right to use its land (locus) in the town of Pepperell (the town) for a proposed "organic materials composting project" (the project).<sup>1</sup> The town claims the proposed use is prohibited by the town's by-law (the by-law) or, in the alternative, requires a special permit. In its Complaint, the town requested this court declare the rights and duties of the parties with respect to G. L. c. 111, § 150A, (refuse treatment and

<sup>1</sup>Defendant Massachusetts Department of Environmental Protection (DEP) indicated it would not take an active role in this case, relying instead upon the case presented by MCGI.

disposal facilities and assignment of sites).

The town stipulated in conference it would withdraw its Complaint, conditioned on agreement of the parties that the action would proceed in accordance with MCGI's Second Amended Counterclaim. As the parties so agreed, the issues before the court are those framed by MCGI in its Second Amended Counterclaim in the form of ten counts. The parties already have resolved Counts III, IV, V, VI, VII and IX.<sup>2</sup> Those remaining are Count I,

<sup>2</sup>The parties stipulated in pre- and post-trial memoranda or at trial they have resolved the following Counts in the stated manner, thereby removing these issues from this case. Count III seeks a determination locus is protected by a three-year use freeze under G. L. c. 40A, § 6, and that the freeze period is suspended during litigation (if MCGI were to prevail). At trial, the town stipulated Count III was resolved in MCGI's favor.

Count IV seeks a determination section 174-10(D) of the by-law (site plan special permit) may not be applied to the project while the project is benefitted by the three-year use freeze. The parties agree this section is limited to imposing reasonable terms and conditions on the project, short of allowing a discretionary denial of the project. (I note MCGI does not waive its rights to contest the reasonableness of conditions the town may impose.)

Count V seeks a determination section 174-10(D) unlawfully requires a special permit for all uses in the Industrial district. MCGI concedes if section 174-10(D) is limited to imposing reasonable terms under Count IV, above, section 174-10(D) is not invalid. As the parties agree the project is subject to reasonable site plan conditions short of denial, MCGI no longer contends this section is invalid.

Count VI alleges section 174-10(D) delegates excessive authority to the Planning Board without adequate standards. As in Count V, MCGI agrees that if section 174-10(D) is limited to imposing reasonable terms under Count IV, then MCGI concedes section 174-10(D) is valid as to Count VI.

Count VII requests a determination sections 174-36(J)(6) and 174-25(H)(3) do not require a special permit if soil is excavated and moved within, but not removed from, locus. The parties agree no special permit is required if soil is excavated and moved within, but not from, locus.

Count IX seeks a determination the 35-foot building height limit contained in the by-law (section 174-29(E)(1)) should be measured vertically from the average finished grade where it intersects the wall of the building that is most closely parallel

whether the project constitutes a "manufacturing, assembly, processing, packaging, or other nonnoxious industrial operation" and is permitted by right under the by-law; Count II, whether the project is a "commercial dumping ground" or a "refuse disposal incinerator" and therefore prohibited or requires a special permit; Count VIII, whether the by-law in effect as of July 1, 1987, specifically prohibited the project; and Count X, whether the project is a private "solid waste disposal facility."

A trial was held on June 15, 1995. A stenographer was sworn to transcribe the testimony of the following three witnesses: Robert Winter (part owner, Treasurer and Director of MCGI), Joseph S. Kowalczyk (a Project Engineer/Project Manager at Camp Dresser & McKee, Inc.), and Mark S. Bartlett (civil/environmental engineer at Shorey, Nims & Bartlett, Inc.).<sup>3</sup> Seventeen exhibits were introduced into evidence, one with multiple parts, and are incorporated herein for purposes of any appeal. Six exhibits were marked for identification purposes only. Based on all the evidence, I make the following findings of fact and rule for Defendant MCGI accordingly:

---

to Nashua Road. The parties agree the height is measured as such. I further find the height of the structure must be measured from the average finished grade regardless of whether some portion of the building interior may be underground, as in where backfill is placed along the front wall creating a downward slope from the front of the building to the rear. See Tofias v. Butler, 26 Mass. App. Ct. 89, 97 (1988).

<sup>3</sup>The direct testimony of Joseph S. Kowalczyk and Mark S. Bartlett, experts for Defendant MCGI and Plaintiff town, respectively, was introduced by affidavits (Exhibit 25, with 6 attachments and Exhibit 26).

1. MCGI is a Massachusetts corporation which maintains a place of business at 141-163 Nashua Road, Pepperell.

2. Plaintiff is the town of Pepperell, acting by its Board of Selectmen, Board of Health and Building Inspector.

3. MCGI is the owner of an approximately 49 acre parcel of land located at 141-163 Nashua Road (locus).<sup>4</sup> Locus is in an Industrial zoning district under the by-law.

4. Locus is shown on a plan submitted to and endorsed by the town's Planning Board on April 8, 1991, as not requiring approval under subdivision control law G. L. c. 41, § 81P. Written notice of the submission of the plan to the town's Planning Board was given to the Town Clerk on April 8, 1991.<sup>5</sup>

5. MCGI intends to use locus to process compostable raw materials (raw material) in accordance with DEP approvals. The

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<sup>4</sup>Locus is the subject of an action pending in Middlesex Superior Court entitled Mass Composting Group, Inc. v. Cass, Civil Action No. 93-2760, which was filed by MCGI on May 13, 1993. Appealing the denial of a special permit application, MCGI claims it is entitled to remove sand, gravel and soil from locus as a lawful prior nonconforming use under G. L. c. 40A, § 6, or, alternatively, seeks a special permit for such earth removal activity.

<sup>5</sup>MCGI originally proposed to build a composting facility at another site in a residential zoning district. I find the circumstances relating to this earlier attempt legally insignificant as to the case at hand for several reasons. First, the town concedes, with some qualification, the project constitutes a manufacturing use. (MCGI's primary purpose for including testimony about the earlier siting effort was to support its contention the project is a manufacturing use.) Second, the parties involved then are not parties to this case. Specifically, the Planning Board and the Zoning Board of Appeals, which were parties in the earlier siting effort, are not now parties. Finally, the issues now at hand relate to the status of the project as proposed for locus and not for the earlier site.

raw material would consist of cranberry waste, paper pulp, waste paper and cardboard, yard waste, shredded pallets, soft drink excess, and certain animal manure. The raw material would be pre-sorted before delivery by truck to locus. The raw material would not be stored permanently at locus.

6. The project will produce a product through a process commonly known as "composting," which is a natural process by which organic matter--the raw material--is converted into humus (the finished product). In composting, bacteria consume and decompose the raw material, reducing its volume by about one third. Proper operation of the project is dependent on numerous factors, including sufficient air and mixing, moisture content, pH balance (which relates to salinity), and temperature. After processing, the finished product would be sold as a soil enhancement agent for agricultural and horticultural uses.

7. All composting operations would be conducted in a completely enclosed building or buildings. The project also would include an 80,000 cubic-foot-per-minute biofilter system to control potential odors and dust. The biofilter system is similar to composting in that the biofilter requires maintenance of a biological growth (bacteria) under carefully controlled conditions. When properly functioning, the biofilter system would absorb chemicals that cause odors in the air and would allow bacteria to break these chemicals down. Dust expected to be produced by the project also would be vented to the biofilter system.

8. Pursuant to G. L. c. 16, § 20, and c. 111, § 150A; MCGI submitted to DEP an application for a "Determination of Need for Site Assignment." DEP sent a draft of its decision on the application to the Pepperell Board of Health for review and comment. DEP received comments from concerned parties, including a citizen's group called the Pepperell Environmental Watchdogs and the town's Board of Health.

9. On October 2, 1992, the DEP Division of Solid Waste Management issued a determination on MCGI's application, subject to twenty-one conditions, that the project "is not considered solid waste activity for the purposes of Chapter 111, Section 150A .... Therefore ... no site assignment is needed for the proposed composting facility at [locus]." The conditions listed by the DEP include the following:

4. The approved materials consist of[:] animal manure and bedding, waste paper, paper pulp and cardboard, vegetable wastes, soft drink excess, leaves and yard waste and clean wood waste. No additional materials shall be added to the process without prior approval from the Department with notification to the local Board of Health.

11. Due to the site's proximity to a sensitive [sic] environmental receptor (the Nashua River), and residential neighborhoods, all curing compost will be stored inside the building and subject to the Division of Air Quality Control Regulations.

12. All incoming feedstock material will be kept inside the facility structure prior to processing.

18. This facility will be subject to inspections by the Department and the local Board of Health or their appointed agent, without prior notice, to periodically enter upon and inspect the facility and relevant operating records to determine and compel compliance with applicable regulations and the conditions of the Determination.

19. All materials must be handled in a manner which will not cause the development of nuisance conditions, including but not limited to, odor, noise, vector and dust problems, and will ensure the protection of public health, safety, and the environment. The Department will monitor the development of any such problems that arise and impose further restrictions on this Determination, if necessary.

....

10. By letter dated March 18, 1993, the DEP's Division of Air Quality Control approved the project subject to thirteen conditions. These conditions include the following:

1. All activities associated with operation of this facility shall be conducted in such a manner as to ensure that a condition of air pollution does not occur due to dust, noise or odor....

2. The facility may compost manure only from horses and cattle. Manure from other animal species will be considered to be allowed by the Department in small quantities only after the Department is satisfied that the odor control system is functioning sufficiently to not cause a condition of air pollution....

5. The following dust and odor minimization practices shall be followed:

- a) facility doors shall be closed when not in use;
- b) a clean facility shall be maintained at all times;
- c) feedstocks shall not be stored outside;
- d) sufficient aeration in the compost piles shall be maintained; and
- e) negative pressure in the compost process area shall be verified routinely.

6. MCGI shall establish a 24-hour odor complaint response telephone number. The odor complaints shall be followed up with all reasonable promptness. The odor complaint shall be recorded on paper, along with all the follow up actions taken....

9. MCGI shall operate the facility in accordance with the approved operating procedures, and in particular shall be required to reduce or eliminate certain odorous feedstocks, as mentioned in the Air Quality Management Plan, if in the opinion of the Department such should prove necessary to avoid conditions of air pollution.

....

11. As a minimum the facility shall not cause an odor offsite....
12. Upon written notification from the Department to the facility that a condition of air pollution is occurring MCGI shall cease receiving any additional feed stock until such times as the Department gives written approval to resume operations.
13. If MCGI fails to correct the condition of air pollution within a reasonable period of time as determined by the Department in consultations with MCGI then MCGI shall take further steps including:
  - a) removal of readily identifiable odorous materials;
  - b) removal of all onsite post composted materials;
  - c) removal of all existing precompost feed stock to be disposed in an approved landfill; and
  - d) removal of the active compost piles to be disposed in an approved landfill.

11. According to the Section Chief for the Division of Air Quality Control in the DEP's Central Regional Office, if the project is not properly operated it may be a source of odor, dust and fungi. Both Messrs. Kowalczyk and Bartlett agree and so testified that if the project is operated in conformance with the conditions of the DEP approvals, the project will not emit noxious odors.

12. I find the project is capable of being designed and operated in compliance with Section 174 - 36. The project will not violate section 174-36(A) through (H) of the by-law if the project is operated in accordance with the DEP approvals. Section 174-36(A) through (H) states in pertinent part as follows:

§ 174-36. Environmental protection

No land or building in a Commercial or Industrial District ... shall be used, occupied or operated in such a manner as to create any dangerous, injurious, noxious or otherwise objectionable fire, explosive or other hazard; noise or vibration, smoke, dust, dirt or other

form of air or water pollution; electrical or other disturbances; glare or other substance, condition or element in such amount as to adversely affect the surrounding area or premises. The following standards shall be enforced in a manner consistent with other town bylaws and regulations and the statutes and regulations of the commonwealth and the federal government, which shall also be applicable:

- A. Fire and explosion hazards....
- B. Radioactivity or electrical disturbance....
- C. Noise....
- D. Vibration....
- E. Glare....
- F. Smoke....
- G. Odors. No emission shall be permitted of odorous gases or other odorous matter in such quantities as to be readily detectable without instruments at the property line of the lot from which they are emitted.
- H. Other forms of air pollution. No emission of fly ash, dust, fumes, vapors, gases and other forms of air pollution shall be permitted which can cause any damage to health ... or other forms of property ....
- I. Water pollutants and liquid wastes....
- J. Soil removal.

13. The evidence established the project will not constitute a "noxious use or condition" as referred to in section H(1) of Part 2 of the Table of Use Regulations of the by-law. Both experts testified, and I so find, the project is capable of being designed and operated in a manner that will not constitute a "noxious use or condition," as referred to in this same section. Section H(1) states as follows:

- H. Manufacturing/processing
- (1) Manufacturing, assembly, processing, packaging or other nonnoxious industrial operation to the extent it is

not a noxious use or condition. In districts requiring a special permit, conditions shall be imposed in the special permit which will tend to assure compliance with § 174-36, Environmental protection, and a time limit on such special permit shall be imposed[.]

14. If the project is operated in compliance with the DEP approvals, the project will contain and control pathogens<sup>6</sup> and odors generated by the project.

This court has exclusive original jurisdiction over the case at hand pursuant to G. L. c. 185, § 1(j)(1/2) and c. 240, § 14A. Under pertinent provisions of c. 240, § 14A,

[t]he owner of a freehold estate in possession in land may bring a petition in the land court against a ... town wherein such land is situated, which shall not be open to objection on the ground that a mere judgment ... is sought, for determination as to the validity of a municipal ... by-law ... which purports to restrict or limit present or future use ... or development of such land ... or for determination of the extent to which any such ... by-law ... affects a proposed use ....

The Land Court Department may review complaints<sup>7</sup> to determine the "extent to which a zoning ordinance affects a proposed use." Banquer Realty Co. v. Acting Building Commissioner of Boston, 389 Mass. 565, 570 (1983); G. L. c. 240, § 14A. MCGI's Counterclaim poses "extent" challenges to the by-law. Specifically, MCGI challenges the extent to which the by-law applies to locus in Count

<sup>6</sup>Pathogens are disease producing bacteria or viruses, parasites and fungi spores.

<sup>7</sup>This statute's language predates changes to the Mass. R. Civ. P. that became effective on January 1, 1982. Since that date the rules have been applicable to the Land Court Department of the Trial Court. Accordingly, The Land Court hears "complaints" as opposed to "petitions," as stated in § 14A.

I (whether the project constitutes a "manufacturing, assembly, processing, packaging, or other nonnoxious industrial operation" and is permitted by right under the by-law); Count II (whether the project is a commercial dumping ground or a refuse disposal incinerator); Count VIII (whether the by-law in effect as of July 1, 1987, specifically prohibited the project); and Count X (whether the project is a private "solid waste disposal facility"). As the parties stipulate MCGI is the owner of locus, the issues are properly before the court under c. 240, § 14A.

I first address Count I. Under Section 174-25(H) (1) Table of Use Regulations. "[m]anufacturing, assembly, processing, packaging or other nonnoxious industrial operation to the extent it is not a noxious use or condition" are allowed by right in the Industrial zoning district. The by-law does not provide definitions for any of the operative words in the Section. The Supreme Judicial Court has defined manufacturing as "the implication of change wrought through the application of forces directed by the human mind, which results in the transformation of some preexisting substance ... into something different ...." Joseph T. Rossi Corp. v. State Tax Commission, 369 Mass. 178, 180 (1975) (citations omitted).

MCGI argues the project is a manufacturing use; I agree. The town does not dispute the project constitutes a kind of manufacturing/processing use; rather, the town argues the project does not fall within this permitted use category because the project can be "a noxious use or condition" if it fails to operate

properly. The town also reasons that because "[t]he primary purpose of the project is to render noxious unwanted, discarded waste material nonnoxious," the project's use is inherently noxious. As the project constitutes a manufacturing use, see also Jackson v. Building Inspector of Brockton, 351 Mass. 472, 474 and 478 (1966) (holding the process of producing "a fertilizer or soil conditioner" by dehydrating "manure or other compost products" constitutes manufacturing), whether the project is covered by this use category turns on whether it is a "noxious use or condition."

As the by-law does not define "noxious," its definition must be determined according to the common usage of the word. See Langevin v. Superintendent of Buildings of Worcester, 5 Mass. App. Ct. 892, review denied, 374 Mass. 834 (1977). Webster's New World Dictionary (3d College ed. 1994) (Webster's New World Dictionary) defines "noxious" as "harmful to the health; injurious." In addition, use of the word "noxious" in several sections of the by-law is informative. See Hall v. Zoning Board of Appeals of Edgartown, 28 Mass. App. Ct. 249, 254 (1990). Section 174-36 of the by-law uses the term as follows:

[n]o land or building in a[n] ... Industrial District ... shall be used ... in such a manner as to create any dangerous, injurious, noxious or otherwise objectional ... hazard ... or ... form of air or water pollution ... or ... condition ... as to adversely affect the surrounding area ....

Section 174-36 continues by establishing specific standards, including those relating to fire and explosion hazards, and noise, smoke, odors and other forms of air pollution, and soil removal.

If the project violates any of these standards will it be a noxious use under this section.

Use category 174-25(H) (1) also refers to "noxious". This provision allows a "nonnoxious industrial operation to the extent it is not a noxious use or condition." This category cross references section 174-36 under which uses that require a special permit (in the Commercial district) may be subject to conditions ("which will tend to assure compliance with section 174-36"). Again, this cross reference shows that a use conducted in compliance with section 174-36 standards is nonnoxious.

Finally, the term "noxious" is used in section 174-30 as follows:

- a lot upon which a so-called noxious use occurs, for:
- (1) The open-lot storage of used materials, used vehicles or equipment or waste materials.
  - (2) The storage for more than six (6) months of unregistered motor vehicles that are not otherwise enclosed.
  - (3) The open-lot parking or storage of five (5) or more buses, trucks or earthmoving equipment items...
  - (4) The open-lot storage of solid fuel, sand, road salt, manure, fertilizer or other similar substances piled in bulk form.

The hallmark of these noxious uses is open lot storage.

MCGI claims the project is not a noxious manufacturing use for several reasons. First, MCGI notes project activities will occur indoors at all times. Second, MCGI indicates the biofilter system would remove odorous chemicals and dust produced by the composting process. Lastly, the testimonies of both expert witnesses, which I credit, establish that if the project is operated in accordance with DEP approvals, it will not constitute

a noxious use. Even the town agrees the project will not be noxious if it is operated in compliance with the DEP approvals. I also note the parties agree the project would not violate section 174-36(D) through (H) and would not constitute a "noxious use or condition" under section 174-25(H) (1) if the project is operated in accordance with DEP approvals. Accordingly, I find the project does not constitute a "noxious use or condition."

The town's argument that the project's potential to have noxious effects also is misplaced. Speculative possibilities are not enough to show the project is a noxious use. Indeed, if the project were to have noxious effects, MCGI would be in violation of the DEP conditional approval and the town's own by-law. Such violation would be remedied at that time by the appropriate authority. See Phelan v. Board of Appeals of Marblehead, 2 LCR 60 (1994) ("[i]f in fact an illegal use develops, the Town's Zoning Enforcement Officer is fully empowered both under the By-Law and under provisions of c. 40A to bring an enforcement action ") Id. at 61. Having found the project does not constitute a noxious use, I hold the project is a use allowed by right in the Industrial zoning district.

The town also argues not all manufacturing uses are covered by this use category under the by-law, claiming the project is one such unqualified use. Where a use is not specified in the by-law, the Planning Board may nonetheless allow such use by special permit pursuant to section 174-25, which states:

[if] a particular use is not specifically included in the table of uses, then the Planning Board may determine

whether in the district in which such use is proposed similar uses are or may be permitted, and if so, the Planning Board may authorize such use as a special permit ... provided that no use which would result in ... more adverse environmental impact shall be defined as similar to a use expressly permitted.

However, as I already have found the project falls under the manufacturing/processing use category, section 174-25 is inapplicable.

In Count II Defendant seeks a determination that the project is not a "commercial dumping ground for garbage and rubbish" or a "refuse disposal incinerator". Section 174-26(E) states:

[no place in the [town] ... shall be established ... as a commercial dumping ground for garbage, rubbish ... the deposit of demolition materials or other refuse or as a site for a refuse disposal incinerator.

It follows that if the project constitutes a manufacturing use it is not also a commercial dumping ground, as "dumping ground" implies a depository for unwanted materials. See Webster's New World Dictionary ("dump" is defined as "to throw away (garbage, rubbish, etc.)," and "ground" as "any particular piece of land; esp. one set aside for a specified purpose"). The project's purpose is to take a raw material and produce humus through a composting process. All processing activities would occur in a fully enclosed building. The raw material and the finished product--both valued by MCGI--would not be stored outdoors on the ground. The composition of the raw material is limited to those elements listed in the DEP approvals. Non-specified materials would be disposed of off-site at properly permitted disposal

facilities. The finished product would be sold and used by consumers at places remote to locus. These activities lead me to find and rule the project is not a "commercial dumping ground".

According to both Defendant's expert and the town's expert, the project is not an incinerator. Even though the composting process involves temperature control and creates an end product that has less mass than the input (as in incineration), this is not enough to make the project an incinerator, and I find the project is not an incinerator.

Count VIII seeks a determination that the project was not "specifically prohibited" prior to July 1, 1987. This issue is relevant because a "facility" as defined in G. L. c. 111, §150A, which has received a site assignment, may be permitted to be constructed on land zoned for industrial use under G. L. c. 40A, § 9. An exception, however, lies where the facility was specifically prohibited by the given municipality's by-law in effect as of July 1, 1987. I note the DEP is of the opinion that "no site assignment is needed for the [project]" because the project is not "solid waste activity." Nonetheless, the town argues that if there should be a need for a site assignment, the town enjoys the benefit of the exemption noted in c. 40A, § 9, as the project was "specifically prohibited" prior to July 1, 1987. MCGI also asks this court to determine if the project was specifically prohibited prior to July 1, 1987, regardless of whether the project requires a site assignment under c. 111, § 150A.

MCGI and the town stipulate the manufacturing use classification in effect at the present time was also in effect as of July 1, 1987. For the same reasons discussed earlier, I find the by-law in effect as of July 1, 1987, did not specifically prohibit the proposed project.

In Count X MCGI seeks a determination that the project is not a private "solid waste disposal facility." Pursuant to Section 174-25 C(11), Table of Use Regulations, "public solid waste disposal facility" is a use allowed by special permit in the Industrial zoning district. No reference is made to private or commercial "solid waste disposal facilities." Uses not specifically referenced in the table are prohibited. As I found earlier, the project constitutes a manufacturing or processing use. "Disposal," which is not defined in the by-law, is defined in Webster's New World Dictionary as "the act of disposing ... a getting rid of." Webster's definition clearly does not encompass manufacturing or processing. The town's expert testified the project is a "solid waste or refuse handling and processing facility" (emphasis added), not a disposal facility. I find the project is not a private or commercial "solid waste disposal facility."

In summary, I find and rule as follows:

- a) The project constitutes "manufacturing, assembly, processing, packaging, or other nonnoxious industrial operation" and is allowed by right in the Industrial zoning district (Count I);

- b) The project is not a "commercial dumping ground" or a "refuse disposal incinerator" (Count II);
- c) The by-law in effect as of July 1, 1987, did not specifically prohibit the project (Count VIII); and
- d) The project is not a private "solid waste disposal facility" (Count X).

To the extent Plaintiff's Request for Findings of Fact are inconsistent with this decision, they are denied.

Judgment accordingly.

  
Karyn Faith Scheier  
Justice

Dated: February 13, 1996

**(SEAL)**

COMMONWEALTH OF MASSACHUSETTS

LAND COURT

DEPARTMENT OF THE TRIAL COURT

MIDDLESEX, ss.

MISCELLANEOUS CASE  
NO. 197658

TOWN of PEPPERELL, Acting by  
its Board of Selectmen, and its  
Board of Health, and its  
Building Inspector

Plaintiff

vs.

MASS COMPOSTING GROUP, INC.,  
and the COMMISSIONER of the  
MASSACHUSETTS DEPARTMENT of  
ENVIRONMENTAL PROTECTION,

Defendants

JUDGMENT

This action was tried upon Defendant's Second Amended Counterclaim and a decision of today's date has been rendered. In accordance with that decision, judgment is hereby entered in favor of Defendant. Specifically, it is hereby

ADJUDGED and ORDERED that Defendant's requests for declarations under its Second Amended Counterclaim are as follows:

Count I - Defendant's project constitutes a "manufacturing, assembly, processing, packaging, or other nonnoxious industrial operation" and is permitted as-of-right under the Pepperell by-law;

Count II - Defendants' project does not constitute a "commercial dumping ground" or a "refuse disposal incinerator";

Count VIII - The by-law in effect as of July 1, 1987 did not prohibit the project;

Count X - Defendant's project is not prohibited as a private "solid waste disposal facility".

All other counts of Defendant's Second Amended Counterclaim have been resolved by either pretrial stipulation of the parties or orally at trial, in favor of Defendant, subject to the parties' qualifications, as set forth in this Court's decision. Also, by stipulation, Plaintiff's Complaint is hereby dismissed with prejudice.

By the Court. (Scheier, J.)

*KFS*

Attest:

Charles W. Trombly, Jr.  
Recorder

Dated: February 13, 1996

A TRUE COPY  
ATTEST:

*Charles W. Trombly, Jr.*