Fill Management Plan
1100 Merrimack Avenue
Dracut, Massachusetts

Prepared for
Deloury Construction/Agretech Corp
January 2023

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Project Number: 156967

Brown AND Caldwell

200 Brickstone Square, Suite 403
Andover, Massachusetts 01810

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List of Abbreviations

ABC	Asphalt Pavement, Brick, and Concrete Rubble
ACO	Administrative Consent Order
BOL	Bill of Lading
CAM	Compendium of Analytical Methods
C&D	Construction and Demolition
CMR	Code of Massachusetts Regulations
Comm 15-01	Interim Policy on the Re-Use of Soils for Large Reclamation Projects Policy # Comm-15-01
Deloury	Deloury Construction/Agretech Corp.
Dracut Quarry	Deloury Dracut, Massachusetts Quarry
EPA	U.S. Environmental Protection Agency
EPH	Extractable Petroleum Hydrocarbons
FMP	Fill Management Plan
LSP	Licensed Site Professional
MassDEP	Massachusetts Department of Environmental Protection
MassGIS	Massachusetts Geographic Information System
MCP	Massachusetts Contingency Plan
mg/kg	milligrams per kilogram
MSR	Material Shipping Record
NAG	Net Acid Generation
NELAC	National Environmental Laboratories Accreditation Conference
NHESP	Natural Heritage and Endangered Species Program
PAH	Polycyclic Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyl
P.E.	Professional Engineer
PFAS	Per- and Polyfluoroalkyl Substances
PID	Photoionization Detector
ppm	parts per million
ppmv	parts per million by volume
PVC	Polyvinyl Chloride
QA/QC	Quality Assurance/Quality Control
QEP	Qualified Environmental Professional
RAP	Reclaimed Asphalt Pavement
RC	Reportable Concentration
RGP	Remediation General Permit
RL	Reporting Limit
RTN	Release Tracking Number
SWPPP	Stormwater Pollution Prevention Plan

TCLP	Toxicity Characteristic Leaching Procedure
TPH	Total Petroleum Hydrocarbons
TVOC	Total Volatile Organic Compound
VOC	Volatile Organic Compound
VPH	Volatile Petroleum Hydrocarbons

Section 1

Introduction

The property at 1100 Merrimack Avenue in Dracut, Massachusetts has been continuously and actively used as a sand and gravel pit and rock quarry, together with a stone-materials crushing and processing operation, for decades. The excavation of materials will cease, and the reclamation of this quarry will be conducted by Deloury Construction/Agretech Corp. (Deloury) over a period of approximately seven years.

This Fill Management Plan (FMP) provides an overview of the requirements that will be implemented to manage the acceptance and placement of soils meeting the Massachusetts Department of Environmental Protection (MassDEP) approved location-specific "Acceptance Criteria" described herein, during the reclamation of Deloury's Dracut, Massachusetts Quarry (Dracut Quarry). The procedures outlined in this document and the proposed use of location-specific numeric Acceptance Criteria currently being developed for "Reclamation Soil" form the basis of this FMP to be reviewed and approved by the MassDEP. As described in further detail below, the soils acceptance protocols reflect the requirements of the Massachusetts Contingency Plan ("MCP", 310 Code of Massachusetts Regulations [CMR] 40.0000) and the *Interim Policy on the Re-Use of Soils for Large Reclamation Projects Policy # Comm-15-01* ("Comm 15-01"), dated August 28, 2015.

The intent of Comm 15-01 is to obtain site-specific approvals from MassDEP, utilizing an Administrative Consent Order (ACO) to establish soil management protocols to be protective of human health and the environment.

The reclamation of the Dracut Quarry will be completed using approved soils for reclaiming sand and gravel and rock quarries. Reclamation will be achieved using soils that meet the Acceptance Criteria.

The standards developed and approved by MassDEP for the re-use of such materials use the conservative exposure scenarios to be protective of human health and the environment. All materials to be used at the Dracut facility would be generated only from specific, tested, and documented sources.

To ensure that all protocols are followed, and acceptance criteria are adhered to, a Licensed Site Professional (LSP) will document compliance with the testing protocols and acceptance criteria as developed by MassDEP at Deloury's expense. The LSP is a site cleanup professional that oversees and certifies that site activities adhere to provisions of the MCP. Independent LSPs will be involved at each in-state soil source location representing the generator, at the Dracut facility providing review of the generator's documentation and independent compliance testing (as paid for by Deloury), and as a Third-Party inspector to provide periodic analysis/testing and record review of the reclamation soil. In addition, the Town of Dracut has hired a consultant to perform an inspection of the Deloury operations biannually.

An LSP or independent Qualified Environment Professional (QEP) will be tasked with documenting compliance with the testing protocols and acceptance criteria for materials originating from any in or out of state locations.

The QEP shall be an individual who: is knowledgeable about the procedures and methods for characterizing contaminated media; is familiar with Massachusetts and federal regulations applicable to the management of such soils; performs or oversees the management of soil as an

integral part of his or her professional duties; and is professionally licensed or certified in a discipline related to environmental assessment (i.e., engineering, geology, soil science, or environmental science) by a state or recognized professional organization.

One of Deloury's LSP's roles will consist of reviewing the required documentation for conformance to the FMP. This review is to determine if the sampling programs are representative of overall conditions at the generation site based on current and former site operations. If sufficient analytical data is not available from the generator's LSP/QEP, Deloury will notify the generator of the need to collect additional data to comply with the FMP.

The general process for accepting material at the quarry will consist of the following steps, as outlined below:

- Characterization via laboratory analysis of the material by the generator
- Comparison of analytical results to the MassDEP Reclamation Soil Acceptance Criteria
- Submittal of the documentation outlining the results of the above two steps to Deloury
- Review of each documentation package by a LSP representing Deloury to determine compliance with the Soil Acceptance Criteria and other requirements of the FMP
- Quality assurance/quality control (QA/QC) inspections and random inspections of the material at the facility prior to placement
- Monthly random spot analysis/testing and record review of the reclamation material by an independent LSP contracted or approved by the Town of Dracut
- Placement and tracking of the material

Section 2

Site Description/Background

General information about the site and surrounding area was obtained by conducting site reconnaissance and a review of mapping for the area. The information is summarized below.

2.1 Site Identification and Location

The street address for the Dracut facility is 1100 Merrimack Avenue, Dracut, Massachusetts. The facility is located on an approximately 22.3 plus acre site and is surrounded by mixed commercial, light industrial, and residential uses. The entire sand and gravel property is located within the Town of Dracut. For reference, a Site Location Map (Figure 1), a Massachusetts Geographic Information System (MassGIS) Priority Resource Map (Figure 2), an Aerial Photograph (Figure 3), a Monitoring Well Locations Map (Figure 4), and a Fill Management Phasing Plan (Figure 5) are part of this FMP. The actual reclamation area encompasses approximately 20 +/- acres. The extraction of sand, gravel, and other materials will cease forthwith and not be revived; however, the sand, gravel and loam importation, and processing and exportation may continue but will be wound down over a period of seven years. The reclamation of the entire site will be complete within seven years six months after issuance of the Special Permit (August 5, 2020) by the Town of Dracut.

2.2 Name and Address of Parties Involved

The Site is currently owned by:

Schiripo, Frank and P&R
FPR Realty Trust
479 Broadway Road
Dracut, MA 01826
Site Contact: Richard Schiripo
Phone: 978-454-0080

The Operations Manager of the site for soil placement is:

Deloury Construction/Agretech Corp
50 Jackson Street
Dracut, MA 01826
Site Contact: Dustin White
Phone: 978-458-6502

The LSP reviewing soil packages on behalf of Deloury is:

Brown and Caldwell
200 Brickstone Square
Suite 403
Andover, MA 01810
LSP: David Carlson
Phone: 508-370-2885

2.3 Surrounding Land Use and Description

The sand and gravel quarry is accessed from 50 Jackson Street, Dracut, Massachusetts. Properties surrounding the subject parcels consist of commercial and residential properties as follows:

- **North:** Undeveloped wooded land owned by the Town of Dracut (Varnum's Conservation Area) and a power line utility easement owned by New England Power Company
- **South:** Residential properties and Merrimack Avenue
- **East:** A power line utility easement owned by New England Power Company
- **West:** Residential and undeveloped land

2.4 Surrounding Resource Areas

The following resource areas were identified by MassGIS mapping (Figure 2) within ½-mile of the site:

- The site is not located within an area designated as Priority Habitat for Rare Species by the Massachusetts Natural Heritage and Endangered Species Program (NHESP).
- There are no Potentially Productive Aquifers or MassDEP Approved Zone II Wellhead Protection Areas located within one-half mile of the site.
- One private drinking water well (35 Jackson Street, Dracut, Massachusetts) is located less than 500 feet west of the site and lateral to groundwater flow. All of the other residential properties are connected to town water by a water supply pipeline.
- The area is not identified as a Potential Drinking Water Source area.
- An area of Protected Open Space Conservation land (Varnum's Conservation Area) owned by the Town of Dracut land lies to the north.
- Isolated inland wetlands are located 500 feet, north, northeast, and west, of the site.
- There are no water supply or irrigation pumps currently present at the Deloury site. For dust suppression and stormwater management, a surface water pump is located on site.

2.5 Reportable Concentrations

Reportable Concentrations (RCs) applicable to the site have been determined based on information obtained from site reconnaissance and MassGIS mapping. The soil and groundwater RCs applicable to the site include RCS-1 for soil and RCGW-1 for groundwater. These are the most protective RCs under MassDEP regulations that are at or below which are considered to pose no significant risk within 500 feet of residential properties, a residentially-zoned property, schools, playgrounds, recreational areas, parks, and geographic boundaries of a groundwater resource area categorized as RCGW-1 (i.e., drinking water areas).

As such and based on site conditions and exposure scenarios, it has been determined that the reclamation area meets the criteria of a soil category RCS-1, as defined by 310 CMR 40.0360. The determination is supported by the following criteria:

- The reclamation area is located within a residential zone area of Dracut
- The reclamation area is located within 500 feet of resident zoned properties
- The reclamation area is within 500 feet of a water supply pipeline

Based on a review of the MassGIS Priority Resource Map (Figure 2), the Dracut Zoning Maps, local file reviews and conditions observed at the site, groundwater at the site meets the criteria of groundwater category RCGW-1. The nearest residential well is located less than 500 feet west of the site at 35 Jackson Street, Dracut, Massachusetts. See Figure 4 for location.

Section 3

Site Reclamation Management Plan

Materials that are scheduled to be placed at the site will be from projects where the soils have either been pre-characterized by an LSP/QEP prior to excavation or characterized from stockpiled soil. All soils to be placed at the site will be characterized by the generator's LSP/QEP. Prior to acceptance and placement of soils at the site, Deloury's LSP will review the characterization data packages of all potential candidate soils.

3.1 ACO Approval

MassDEP issued ACO No. 10832 for the site on March 31, 2021. The ACO addresses how the material being sent to the site will be sampled, documented, tracked, transported, and managed. The document also clearly outlines what materials can and cannot be accepted. By reference, the ACO incorporates the contents of this FMP.

3.2 Soil Acceptance Criteria

To document that the reclamation soils meet the requirements of the MCP and its supporting guidance documents and policies, the characterization of soil will be required. Acceptance Criteria for Reclamation Soil has been developed in accordance with COMM-15-01, the MCP (310 CMR 40.0000), and discussions with MassDEP. The Acceptance Criteria has been developed to help control the following:

- The background levels of underlying groundwater to prevent unacceptable levels through leaching of oil or hazardous material (OHM)
- Human exposure at off-site/abutting properties through direct contact with the soil or inhalation of vapors or particulates emanating from the site
- Degradation of wildlife habitats
- Degradation of neighboring properties, wetlands, and waterways through stormwater runoff

The criteria are 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 Comm 15-01 dated August 28, 2015; The Acceptance Criteria were established to be protective of surrounding natural resource areas identified in Section 2.4.

Soil being placed at the Site shall not exceed the following field screening/visual criteria:

- Field screening results of soil headspace from representative samples must not exceed a reading of total volatile organic compound (TVOC) vapors, in the jar headspace of 5 parts per million (ppm). All soil and fill material received by the facility must be screened with a photoionization detector (PID) meter at a frequency of at least one sample per 50 cubic yards, using the MassDEP Jar Headspace procedure.

- Visually, fill materials may not contain more than 5 percent by volume of bituminous pavement/brick/concrete and may not contain any bituminous pavement/brick/concrete greater than six inches in any dimension. Bituminous pavement/brick/concrete greater than six inches in any dimension that are received at the site shall either be crushed on site to the proper dimensions prior to filling or shall be removed from the site.
- Other solid wastes (Wood/Plastic/Paper/Wire/Pipe) are permissible only in incidental, randomly dispersed, *de minimis* quantities that are collectively less than 1 percent by volume of all fill material.
- Soil containing free liquids and/or with evidence of staining, odors, or other discolorations indicative of an OHM shall be prohibited.

The following materials will not be accepted at the Dracut Quarry:

- Industrial waste, uncharacterized street sweepings, or catch basin cleanings
- Coated and/or unprocessed asphalt, brick, and concrete (ABC)
- Construction and Demolition (C&D) Debris
- Materials that exceed Deloury's Acceptance Criteria (Appendix A - Table 1)
- Solid Waste subject to 310 CMR 19.00 and 16.00

3.2.1 Reclamation Soil

The Soil Acceptance Criteria presented on Table 1 in Appendix A are site imposed criteria significantly less than RCS-1 criteria that are designed to be a conservative screening tool for acceptance of suitable soils for reclamation and protective of the environment. The Acceptance Criteria for metals and polycyclic aromatic hydrocarbons (PAHs) placed within the reclamation area will be less than the RCS-1 values (310 CMR 40.16000). The acceptance criteria for the remaining constituents were established as less than 50 percent of the RCS-1 value (total petroleum hydrocarbons [TPH]), less than 10 percent of the RCS-1 values (volatile organic compounds [VOCs], polychlorinated biphenyls [PCBs], volatile petroleum hydrocarbons [VPH] fractions, and pesticides/herbicides), and that the soil does not exhibit a characteristic of hazardous waste. At Deloury's discretion, any soil with any amounts of PCBs or per- and polyfluoroalkyl substances (PFAS) analytes may not be accepted.

For analytes with no RCS-1 values, assuming there is no reason to believe they would be present in a soil sample, the allowable limit is less than the laboratory reporting limit (RL) of that analyte as established by the "typical" Compendium of Analytical Methods (CAM) procedure (i.e., no need to employ special techniques like SIM).

3.3 Groundwater Protection

3.3.1 Groundwater Characteristics

Currently stormwater infiltrates directly into the ground or is directed into on-site stormwater trenches oriented west to east in the western portion of the site, as well as a man-made retention basin. This water is pumped from the basin and utilized for dust suppression on site. Based on observed stormwater runoff and infiltration, water management, during quarry filling is expected to be primarily associated with stormwater precipitation events.

As outlined in Section 2.5, conditions observed at the site and in accordance with 310 CMR 40.0362 and 40.0932, groundwater at the site meets the criteria of groundwater category of RCGW-1 and GW-3.

- **RCGW-1** – Was chosen to apply because a residential property drinking water well is located within 500 feet of the site and within 500 feet of a water supply pipeline.
- **Method 1 GW-3** – Applies as all groundwater in Massachusetts has the potential to discharge to surface water.

Because future re-use of the site may include the development of either a residential and/or commercial structure(s), as a conservative measure, certain parameters within the soil acceptance criteria are well below RCS-1 standards.

3.3.2 Groundwater Monitoring

Based on available information, the overburden groundwater at the site generally flows from the north to the south. The monitoring network will consist of four monitoring wells, one upgradient (MW-1) and three downgradient (MW-2 through MW-4) wells. The monitoring wells have been installed using auger drilling method at a depth of at least 10 feet below the elevation of the base of filling to or 5 feet below the water-table. The approximate locations of the monitoring wells are provided on Figure 4.

The monitoring wells have been installed in accordance with *MassDEP Publication WSC-310-91, Standard References for Monitoring Wells*. In summary, monitoring wells will be constructed with two-inch diameter; Schedule 40, polyvinyl chloride (PVC) riser and a 10-foot, 0.010-inch slotted well screen with flush-joint threads. No glues or additives will be used during the installation. Clean washed No. 2 sand will be backfilled around the PVC to two feet above the screen with a bentonite seal placed above the sand. The wells will be completed with three-foot stickups.

The groundwater samples will be collected in accordance with the most recent *United States Environmental Protection Agency (EPA) Region I Low Stress (low flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells* publication. The groundwater samples will be submitted to a National Environmental Laboratories Accreditation Conference (NELAC) accredited environmental laboratory and shall be analyzed for the parameters discussed in Section 3.3.2.1 below in accordance with the latest version of the specified test method. The groundwater monitoring program will consist of a baseline monitoring event, annual monitoring events throughout the entire reclamation process and a post-reclamation groundwater monitoring event. Based on the groundwater results, additional monitoring wells may be installed along the perimeter of the quarry to evaluate for potential migration and fate/transport.

3.3.2.1 Baseline Groundwater Monitoring

Following the installation of each monitoring well, a baseline groundwater sampling event will be conducted one week following the installation and development of the groundwater monitoring wells. The samples designated shall be submitted to a NELAC accredited laboratory for the chemical analyses required. MassDEP CAM methods must be used for all analytes that have CAM methods. RLs must be low enough to allow comparison to MassDEP RCGW-1 standard. Environmental samples shall be collected, labeled, and preserved in accordance with established protocols for the respective analysis, and submitted to the analytical laboratory under chain-of-custody procedures. Laboratory environmental analyses for the following parameters shall be in accordance with the latest version of the specified test method:

- Extractable and Volatile Petroleum Hydrocarbons by MassDEP EPH/VPH Methods
- VOCs by EPA 8260
- Semi-volatile Organic Compounds (SVOCs) by EPA 8270
- MCP 14 Metals by EPA 6010/7000 (total and dissolved)
- PCBs by EPA 8082

- Herbicides by EPA 8151
- Pesticides by EPA 8081
- Perchlorates by EPA 332

3.3.2.2 Annual Groundwater Monitoring

Groundwater samples will be collected from each of the monitoring wells on an annual basis (Spring/Summer) and analyzed for the following parameters:

- EPH/VPH by MassDEP EPH/VPH Methods
- VOCs by EPA 8260
- SVOCs by EPA 8270
- Total MCP 14 Metals by EPA 6010/7000
- Dissolved MCP 14 Metals by EPA 6010/7000

3.3.2.3 Post-Reclamation Groundwater Monitoring

Two years after completion of the reclamation project, the wells must be re-tested for the full analyte list utilized in the baseline sampling effort.

3.4 Soil Testing Requirements

For acceptance of soils/materials, the generator will provide a profile package including laboratory analytical data for the parameters listed below. Prior to shipment to the site, the generator's LSP/QEP should collect composite soil samples at the frequency outlined in Table 3-1, in areas and locations with similar soil characteristics (e.g., visual, olfactory, and PID conditions). Composite samples should be created from five to ten individual samples collected in situ or from stockpiled material; however, apparent "hot spots" must be characterized using grab samples. In the event that grab samples are used to characterize the candidate soils, the LSP/QEP shall state why the use of grab samples is appropriate and adequately representative of the soils being proposed for re-use. This information will allow Deloury to confirm that the soils received at the site conform to the MassDEP Criteria for Reclamation Soils. If adequate analytical data is not provided by the generator's LSP/QEP, the generator will be required to collect additional samples.

Samples designated for environmental analysis shall be submitted to a NELAC accredited laboratory for the chemical analyses required. MassDEP CAM methods must be used for all analytes that have CAM methods. Laboratory RLs must be low enough to allow comparison to Acceptance Criteria, with the exception of those VOCs and SVOCs listed in CAM as having poor purging efficiency/difficulties achieving reporting limits, which may be evaluated by project LSPs on a case-by-case basis, provided that RLs are less than RCS-1 concentrations. Environmental samples shall be collected, labeled, and preserved in accordance with established protocols for the respective analysis and submitted to the analytical laboratory under chain-of-custody procedures. Laboratory environmental analyses for the following parameters shall be in accordance with the latest version of the specified test method:

- Field Screening for TVOC vapors (PID following MassDEP Jar Headspace Screening Procedure based upon an isobutylene response factor)
- VOCs (EPA 8260)
- SVOCs (EPA 8270 full list)
- Metals – MCP 14 metals by EPA 6010/7000
- PCBs by EPA 8082
- TPH (summation of EPH/VPH Fractions can be substituted) by MassDEP Methods

- PFAS an LC/MS/MS isotope dilution method, including EPA Method 1633
- Hexavalent Chromium if Total Chromium >100 milligrams per kilogram (mg/kg) by EPA 7196A
- pH/Corrosivity by 150.1/SM-4500H+ B/9040/9045
- Specific Conductance/Conductivity by EPA Method SM2510
- Herbicides (may be excluded or limited based on site history of the originating location; i.e., no history of use or manufacturing at original location of excavation) by EPA 8151
- Pesticides (may be excluded or limited based on site history of the originating location; i.e., no history of use or manufacturing at original location of excavation) by EPA 8081
- 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)
- Toxicity Characteristic Leaching Procedure (TCLP) for any analyte exceeding EPA TCLP Trigger Values by EPA Method 1312
- If blasted/excavated bedrock is accepted – a Net Acid Generation (NAG) test
- Other tests as deemed prudent based on soil source location history.

Sampling and QA/QC procedures acceptable to MassDEP will be adhered to and QA/QC results will be considered by the generator in determining if the soil profiling is acceptable before considering shipment to the Dracut facility. Laboratory analytical data sheets, chain-of-custody form, and laboratory QA/QC reports will be provided with the soil profiling packages along with pertinent maps/sketches and field-testing results for review by Deloury and the site LSP.

Table 3-1. Sampling Requirements, Deloury Dracut Quarry

	Source/Origin Description	Minimum Sampling Frequency
1	**Naturally Deposited Soils** - Not from an area of known or suspected high background levels of metals, not proximate to urban fill soil, not proximate to MCP Disposal*. No industrial/commercial history. No agricultural history with likely pesticide/herbicide use.	**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 ensure that none of the soils are above the acceptance criteria.
2	**Boston Blue Clay, Marine Soils, and other naturally-deposited soils from known or suspected areas of elevated metals** - Not proximate to urban fill soil, not proximate to MCP Disposal Site*. No industrial or manufacturing history. No agricultural history with likely pesticide/herbicide use.	**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 ensure that none of the soils are above the acceptance criteria.
3	**Urban Fill Soil** - Historic Fill and other soil in areas where impacts would be expected from fill materials, lead paint, oils, pesticides/ herbicides use, and other anthropogenic activities. No industrial or manufacturing history.	**1 test profile per 500 cubic yards** (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 ensure that none of the soils are above the acceptance criteria.
4	**Industrial Soils** - 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. No soil or fill shall be obtained from or immediately contiguous to such locations unless an LSP/QEP provides a report detailing why such soils conform to acceptance criteria.	Minimum **1 test profile per 500 cubic yards** (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 ensure that none of the soils are above the acceptance criteria. Additional test parameters such as cyanide must be included as appropriate.

Table 3-1. Sampling Requirements, Deloury Dracut Quarry		
	Source/Origin Description	Minimum Sampling Frequency
5	**Other** - 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.	Minimum **1 test profile per 500 cubic yards** (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 ensure that none of the soils are above the acceptance criteria.
6	**Blasted/Excavated Bedrock (if applicable)**	Minimum **1 test profile per 500 cubic yards** (750-850 ton) to characterize acid generation potential.
7	**Dredge Material (if applicable)**	In accordance with the 401 Certification process, as specified at 314 CMR 9.07(9)

Notes:

The more conservative sampling protocol shall apply to soils that meet more than one of the above.

** A deposit of interest is considered vertically proximate to urban fill or a MCP Disposal Site if there is a reasonable possibility that contaminants in the urban fill or disposal Site could be present in the naturally deposited soil, either via initial releases/deposition or via migration. Sampling of naturally deposited soils that underlay urban fill or a MCP Disposal Site may be performed at a 1 sample/1,000 cubic yard frequency once it is established that any surface contamination does not extend into the native material. A deposit of interest is horizontally "proximate" if it is located within 100 feet of urban fill or an MCP Disposal Site.*

3.5 QA/QC Inspection/Testing

In order to provide assurances to the public and Deloury, the following testing protocol for incoming materials has been established.

3.5.1 Third-Party Monthly Inspections

Monthly third-party inspections will be conducted by an independent LSP, Professional Engineer (P.E.), QEP, or another QEP approved by MassDEP and contracted by Deloury. The third-party inspector will conduct unannounced and random inspections during normal operating hours. The independent and random testing protocol is provided in Appendix A. The third-party inspector will perform the following:

- 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 recently delivered to the Property and submit the collected samples to a laboratory for the soil profile analyses specified in the FMP. The composite sample shall consist of a minimum of 5 to 10 subsamples from the load(s) under evaluation. If a load has been selected by the third-party inspector for sampling, the load will remain in a holding bay until the laboratory results have been received
- If no soil and/or fill materials have been accepted since the last monthly inspection and there is no area that appears to be contaminated based on the inspector's observations, a monthly sample will not be taken.
- Inspect all erosion control measures including but not limited to, silt fence, hay bales, temporary basins and swales.

- The third-party inspector shall have the authority and shall immediately stop work on the project for any activity that is in significant noncompliance with the approved FMP and shall immediately notify MassDEP thereof.
- The third-party inspector shall prepare an inspection report documenting the findings for each inspection and shall submit such report to Deloury on or before the 15th of each month. The report will be submitted to the MassDEP along with Deloury's monthly status report.

3.5.2 Monthly Reporting

Monthly reports shall be submitted electronically to MassDEP by the 21st of each month for the previous calendar 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:

- The total tons of soil received by the site in the previous month; the total tons of soil received by the site since the signing of the Consent Order; and the estimated total tons of capacity remaining at the site.
- A tabulation showing the origin/addresses of the sources of soil received during the previous month:
  - The total tons received for the month from each address.
  - A notation on whether the required PID screening at 1 sample/50 cubic yards was conducted at the point of generation or point of unloading at the facility, and affirmation that soil with headspace concentrations >5 parts per million by volume (ppmv) was either rejected or approved after further evaluation by an LSP/QEP from each address.
- 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.
- A report by the third-party inspector, to include:
  - Observations of practices that are not compliant with the FMP and/or Consent Order;
  - Observations of solid or hazardous waste, stained soils, odors or sheens;
  - Observations on airborne dust and dust control measures employed;
  - Specific recommendations 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 FMP.
    - A clear statement regarding whether any of the Acceptance Criteria were exceeded.
    - The laboratory analytical reports and chain-of-custody documentation.
- Any other information or data deemed to be significant and/or noteworthy by Deloury, Deloury's LSP, or the third-party inspector.

3.6 Required Acceptance Documentation

A Soil Submittal Package is to be provided by representatives of each location of soil origin for review and approval by representatives of Deloury.

A complete package is to be provided to and available for review at:

Deloury Construction / Agretech Corp
50 Jackson Street
Attention: Dustin White
978-458-6502
Email: dwhite@agretechcorp.com

The Soil Submittal Package shall consist of a MassDEP Bill of Lading (BOL) or Material Shipping Record (MSR), a table comparing the soil sample results to MassDEP Acceptance Criteria (the table shall include RCS-1, and MassDEP published background values as reference), a site plan showing the sampling location, the Generator Profile provided in Appendix B, and an Opinion Letter signed by a LSP or QEP. The Opinion letter shall contain the following information:

- Estimated quantity of the soil or material (by volume. Dracut Quarry will automatically apply a factor of 1.7 tons/cubic yard to establish total tonnage limit).
- Description of the historical use(s) of the soil generation site.
- Description of the soil characterization sampling program and analytical results, and any field screening analytical data used to support the determination.
- A physical description of the soil including the soil classification method used.
- A statement from the generator as to whether the site is a listed Disposal Site, as defined in the MCP, or if any releases or spills have occurred on or in the vicinity of the site which may have affected the site, including the types of OHMs spilled/released.
- A figure depicting the horizontal and vertical distance between the subject soil limits proposed for Dracut Quarry re-use and all proximal soil within RTN site limits, which are unacceptable.
- A statement that the generator has used due diligence, as described in MassDEP's Policy HW93-01 to characterize that the soil does not contain a listed hazardous waste and/or is itself a characteristic hazardous waste.
- Available groundwater monitoring data (e.g., groundwater monitoring data from MCP disposal Sites or Remediation General Permit (RGP) groundwater, influent and effluent data), shall be provided to Deloury by the generator for review.

3.7 Soil Submittal and Approval Process

The Soil Submittal Package from the proposed generator's property will be reviewed and approved by Deloury's LSP. When the package is approved, the soils will receive an approval code which will be logged into Deloury's database. The approval code will be required to be placed on all MSRs. The MSR will be entered into the database for tracking purposes.

3.8 Soil Placement/Phasing

Trucks with appropriate transportation documentation will be directed to an unloading area. Please refer to Figure 5 - Fill Management Phasing Plan for an overview of how the reclamation of the Quarry will progress. Final grades for the project are shown in Appendix C. The plans depict the areas of fill and final grading. The volume of materials associated with reclamation activities are in accordance with the information in Table 3-2 below.

Table 3-2. Reclamation Volumes		
Phase	Area	Reclamation Operation (cubic yards)
Phase 1	5 acres	175,000
Phase 2	5 acres	175,000
Phase 3	5 acres	175,000
Phase 4	5 acres	175,000

Soils will be placed into the quarry by Deloury personnel using appropriate heavy equipment from the quarry edge and from within the quarry as needed.

If the on-site personnel deem the soil to be suspect, based on visual or olfactory evidence, the truck will be rejected and sent back to the generator for additional testing. Should the soils be deemed suspect once placed, the soil will be segregated and tested at the generator's expense, to determine whether it meets the Acceptance Criteria. If the soil is acceptable, it will be used as reclamation material. If the soil does not meet the Acceptance Criteria, the soil shall be removed from the facility within seven days. The owner of the site from which the rejected soil was shipped shall be responsible for removing and disposing of such rejected soil in accordance with applicable regulatory requirements. If the owner fails to remove the rejected soil, Deloury shall dispose of the rejected soil in accordance with applicable regulatory requirements at the owner's expense. All material must be either accepted and re-used or rejected and removed from the Property within 30 days of deposition.

All soil received by the facility must be screened with a PID meter at a frequency of at least one sample per 50 cubic yards, using the MassDEP Jar Headspace procedure (Appendix A). Soils displaying signs of contamination (e.g., staining/discoloration/odors/drum or tank fragments) shall be preferentially selected for testing. The PID meter must be calibrated to an Isobutylene standard. Soil samples displaying headspace concentrations greater than 5 ppmv must be segregated and evaluated by an LSP/QEP. The PID screening may be conducted by the generator at the generation source and provided to Deloury or by Deloury at the Dracut Quarry. If conducted by the generator, the PID screening results will be documented in the field summary table included in the Generator Profile and provided to Deloury prior to the start of shipping. If PID screening is performed by the generator at the time of shipment, the data must be attached to the MSR and both documents provided to Deloury at the time the load is received.

3.8.1 Generator Soil Placement Requirements

Personnel at the site where the soil is being loaded, under the overall direction of an LSP/QEP, must continuously inspect soil being excavated and loaded for signs of contamination (e.g., staining/discoloration/odors/drum or tank fragments) or unacceptable materials (e.g., Solid Wastes). Any suspect materials must be segregated for further evaluation by an LSP/QEP. Any field observations during loading will be documented in the field summary table included in the Generator Profile and provided to Deloury.

3.8.2 Receiving Facility Soil Placement Requirements

Trained personnel at the Dracut Quarry, under the overall direction of Deloury's LSP, must continuously inspect incoming soil for signs of contamination (e.g., staining/discoloration/ odors/drum or tank fragments) or unacceptable materials (e.g., Solid Wastes). Any suspect materials must be segregated for further evaluation by Deloury.

3.9 Documentation and Record Keeping

Only materials that meet the approved regulatory requirements for the project and the environmental characterization requirements outlined above will be accepted at the site. The documentation and record keeping procedures have been developed to ensure that the project is completed in accordance with the relevant and appropriate regulatory requirements and MassDEP acceptance criteria for off-site soil. The documentation and record keeping procedures will also be utilized to demonstrate that sufficient information has been obtained to verify that the off-site soil may be accepted at the site. Each source of off-site soil accepted at the site will be required to provide an LSP/QEP opinion that states the soil meets the requirements for acceptance for the Dracut Quarry.

When in operation, Deloury personnel, or their designee, shall oversee the receipt and placement of all off-site soils. Deloury, or their designee will review on a daily basis the approved sources of off-site soil and undertake the QA/QC procedures necessary to ensure compliance with the approved requirements for acceptance of off-site soil materials.

In addition to the characterization documentation and certifications described in Section 3.4, daily records documenting the fill management activities at the site (for both off-site and on-site fill materials) shall be maintained by Deloury. The daily records shall include a summary of all materials accepted at the site. The record shall include information on the source of the material, the date and time of receipt at the site, the registration number and name for each delivery truck, the weight of the material, the physical characteristics of the material and the approximate location (both horizontally and vertically) where the material was placed within the site. The daily record keeping activities shall also include documentation that the environmental controls and monitoring activities described in Section 4 of this FMP and in the Stormwater Pollution Prevention Plan (SWPPP) have been implemented as required.

The daily records shall be maintained on-site and shall always be accessible to the Town of Dracut and its representatives as well as MassDEP. These records will be maintained throughout the duration of the reclamation activities and available upon request. The site will be subject to the EPA document retention policy.

Section 4

Construction Impact Mitigation

Site reclamation activities will be conducted in accordance with environmental mitigation measures contained within the Stormwater Management Plan and the FMP.

4.1 Site Access

The site is located at 1100 Merrimack Avenue with site access through 50 Jackson Street, Dracut, Massachusetts.

Access to the Dracut Quarry from Boston and points south will be from Route 93 North: The trucks will be restricted to the following State Highway route:

- At Exit 46 take ramp right for RT-110/RT 113 W/Lowell (0.5 miles)
- Keep left to stay on RT-110 W/Lowell Street (3.2 miles)
- Turn right onto Jackson Street

Access to the Dracut Quarry from points north will be from Route 93 South: The trucks will be restricted to the following State Highway route:

- At Exit 46 take ramp right towards Dracut/Lawrence (0.3 miles)
- Bear right onto on RT-110 W/Lowell Street (3.2 miles)
- Turn right onto Jackson Street

Turn right onto Jackson Street. Access will be through the Gate/Scale House into the site and to the unloading area as directed by Deloury. Roadways will be maintained for truck access. Hours of operation for reclamation material acceptance are 7:00 am to 5:00 pm Monday through Friday and 8:00 am to 5:00 pm on Saturdays. Prior written approval from the Board of Health or other designated Town Board/Department is required for Sunday operations or other hours outside those listed here.

4.2 Reclamation Traffic Control

Reclamation truck access will be controlled by Deloury. The following elements constitute the traffic control and management plans for the reclamation of the quarry, and will be enforced for the duration of this site reclamation program:

- All contracts with providers of fill and those under a written contract that regularly enter and leave the site will include provisions that describe the required route(s) for access between the site and Route 93, including the interim routes and the direct highway connections.
- Trucks used to transport fill for reclamation purposes shall be allowed to enter and depart the site on the agreed upon schedule.
- Deloury will use diligent efforts in cooperation with officials from the Town of Dracut to control the routing and volume of reclamation traffic such that the operation proceeds with the minimum practical adverse impact on the town.

4.3 Interim Stabilization

Based on the proposed project lifetime and fill placement phasing, interim soil stabilization controls may be implemented to minimize erosion, sediment runoff, and fugitive dust. Stabilization controls utilized for erosion and sediment control may be broadly categorized as nonstructural and structural controls.

Nonstructural controls addressing erosion typically include plans and designs to minimize disruption of the natural features, drainage, topography, vegetative cover features; phased development to minimize the area of bare soil exposed at any given time; plans to disturb only the smallest area necessary to perform current activities; and specific plans for the stabilization of exposed surfaces in a timely manner.

Structural controls are preventive and mitigative since they control erosion and sediment movement. Structural controls include vegetative and non-vegetative stabilization of exposed surfaces, perimeter controls, sediment traps, improved sediment basins, silt fences, filter fabrics, etc.

4.4 Stormwater Controls

Materials transported to the Dracut facility will be unloaded at a safe designated truck unloading area as depicted on Figure 5. This designated location will be pitched to drain towards the quarry to ensure stormwater is controlled. In addition, best management practices shall be used to limit impacts to surrounding areas.

Fill material unloaded at the site will be placed and shaped with construction equipment or other equipment.

Additional details regarding the design and location of the stormwater controls are provided in the Stormwater Management Plan (Appendix D). The Stormwater Management Plan will be a living document that will be periodically updated throughout the reclamation process.

4.5 Noise Impact Management

Noise associated with reclamation operations will comply with the MassDEP Noise Pollution Policy (310 CMR 7.00), which requires that noise levels cannot cause a public nuisance. Reclamation activities will be limited to Monday through Saturday, unless prior written approval from the town is obtained for Sunday operations. Existing activities, including earth-moving activities, stone product trucking, reclaimed asphalt product (RAP), and concrete crushing, crushing of stone, and general construction activity will continue to operate under existing hours of operation.

4.6 Air Quality and Dust Control

The reclamation project will include the control of fugitive dust, as listed below:

- All arriving trucks transporting fill or loaded trucks exiting the site will be required to be covered
- Water and/or other dust suppressants will be applied to unpaved haul roads on a regular basis to suppress dust. Alternatively, compacted RAP and processed, uncoated asphalt pavement, brick, and concrete rubble (ABC) can be used for haul road construction
- Paved entrance and exit roads will be swept and/or watered during hours of operation every day that fill is being delivered to the Site, weather permitting
- New fill will be placed in permanent locations and graded as soon as practical to take advantage of the fill's natural moisture content in suppressing dust

4.7 Site Security and Public Safety

To ensure the security of the site and provide for the safety of the public at-large, Deloury will continue to provide assurances that access to the site is secure.

4.8 Public Involvement

Deloury will publish a phone number to field any complaints from the public pertaining to the reclamation process. The complaints will be documented in a database that will be shared with the Town of Dracut and include, the time and date of the complaint, the type of complaint, and any corrective actions to be implemented.

4.9 Complaints

All environmental complaints, whether verbal or written, will be recorded in Deloury's SMS Turbo/ QuickBooks Management System database. Upon receipt of a complaint, all relevant information to enable the complaint to be handled effectively shall be documented. This shall include:

- Name and address of the person making the complaint
- Contact telephone number
- Date and time of the complaint
- Means by which the complaint was communicated
- The nature of the complaint, including severity and duration
- Name of the person who received the complaint

If a complaint is received via telephone, the person answering the phone shall record the name and the number of the person making the complaint and deliver this information to the appropriate site representative. Site representatives shall investigate all environmental complaints.

Details including further contact with the complainant, communication with regulatory authorities, or communication among Deloury employees regarding the complaint will be recorded by the site representative within the SMS Turbo / QuickBooks Management System database.

Figures

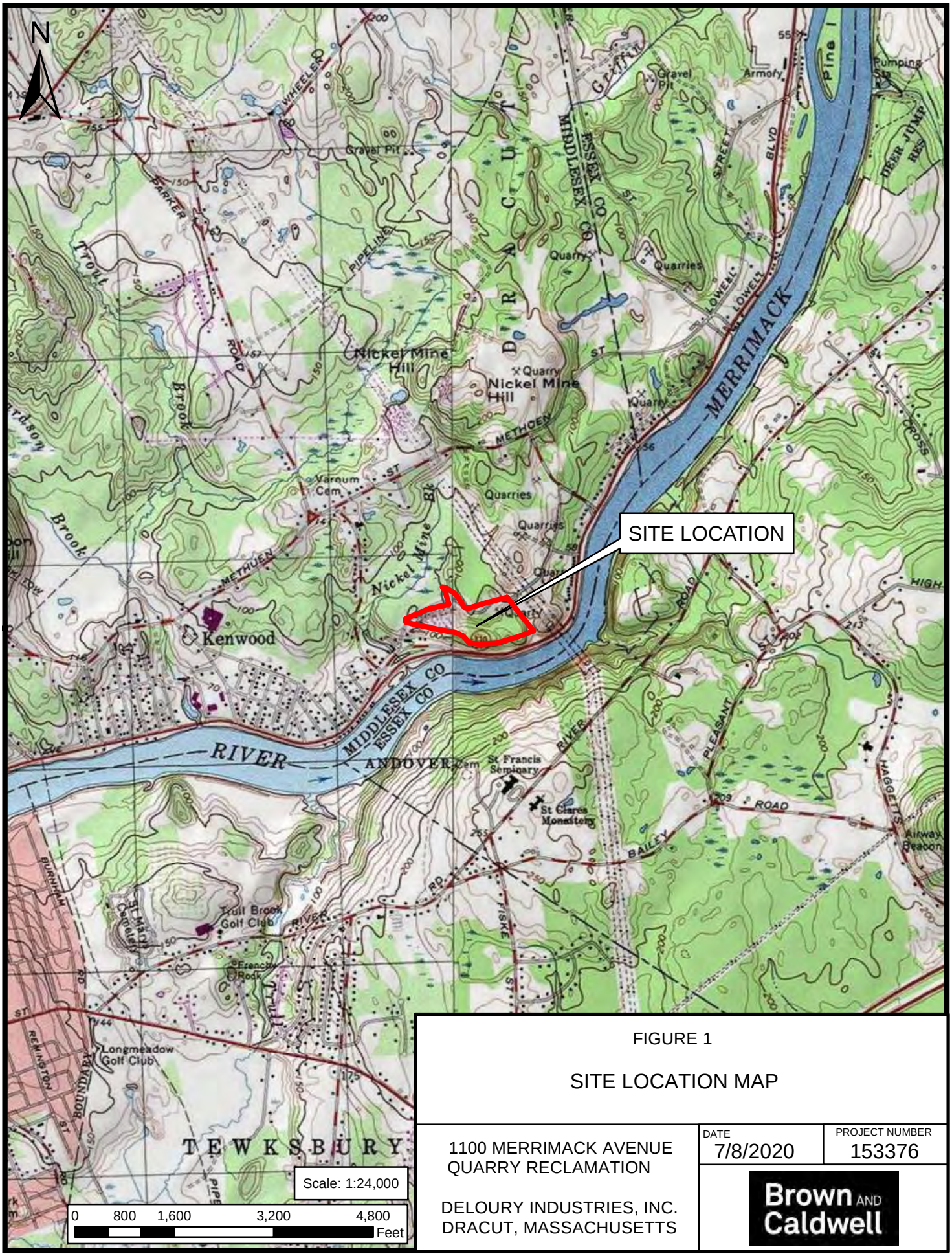


FIGURE 1

SITE LOCATION MAP

1100 MERRIMACK AVENUE
QUARRY RECLAMATION

DELOURY INDUSTRIES, INC.
DRACUT, MASSACHUSETTS

DATE	PROJECT NUMBER
7/8/2020	153376

Brown AND Caldwell

User Name: KScott2

Document Path: \\bcbosfp01\projects\Hinkley Allen\153376_Dracut_Deloury\Application\1100 Merrimack Reclamation\Fill Management Plan\Figures\Figure 1_Site Location Map.mxd

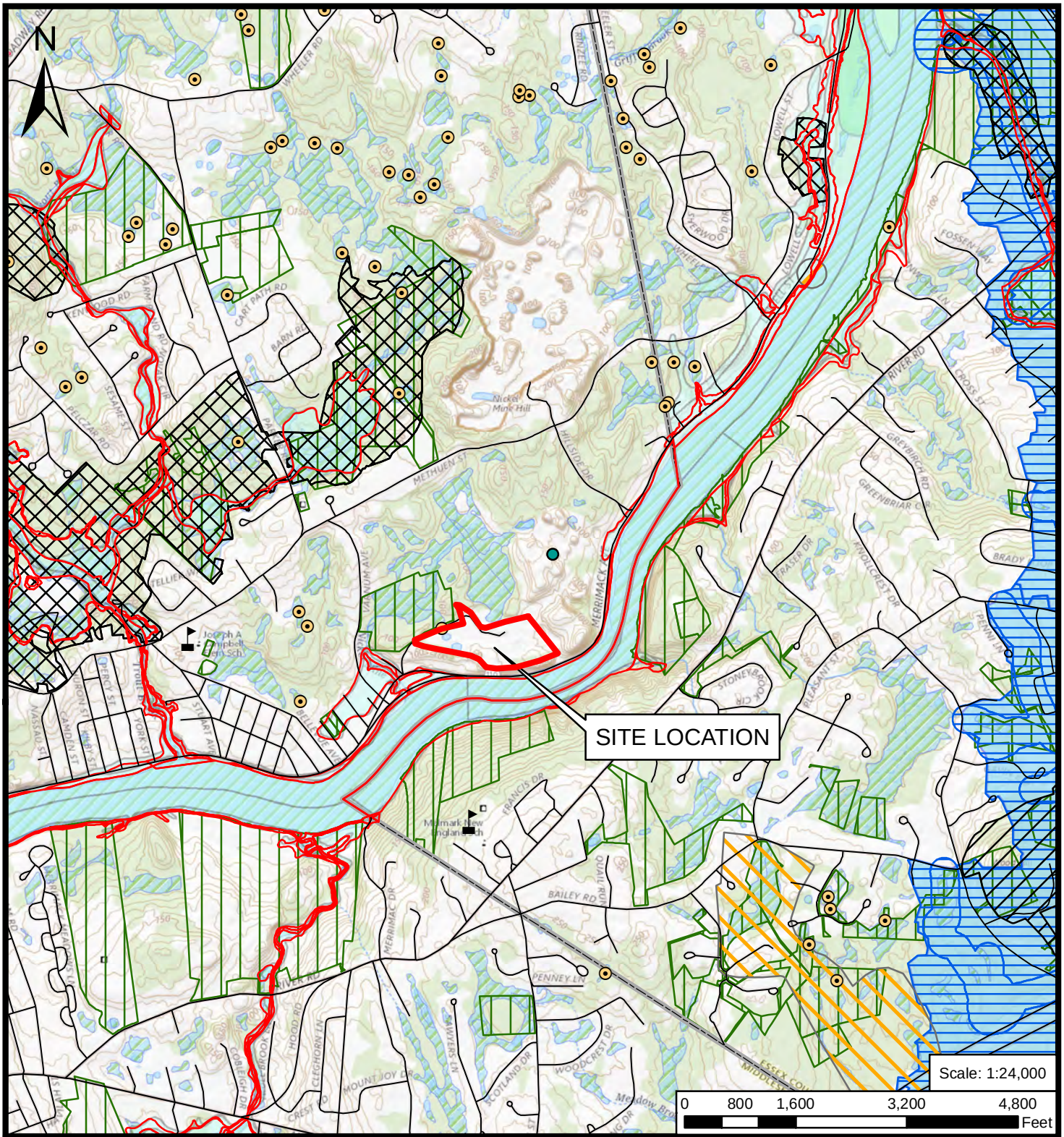


FIGURE 2

MASSDEP PRIORITY RESOURCE MAP

1100 MERRIMACK AVENUE
QUARRY RECLAMATION

DELOURY INDUSTRIES, INC.
DRACUT, MASSACHUSETTS

DATE	PROJECT NUMBER
7/8/2020	153376

Brown AND Caldwell

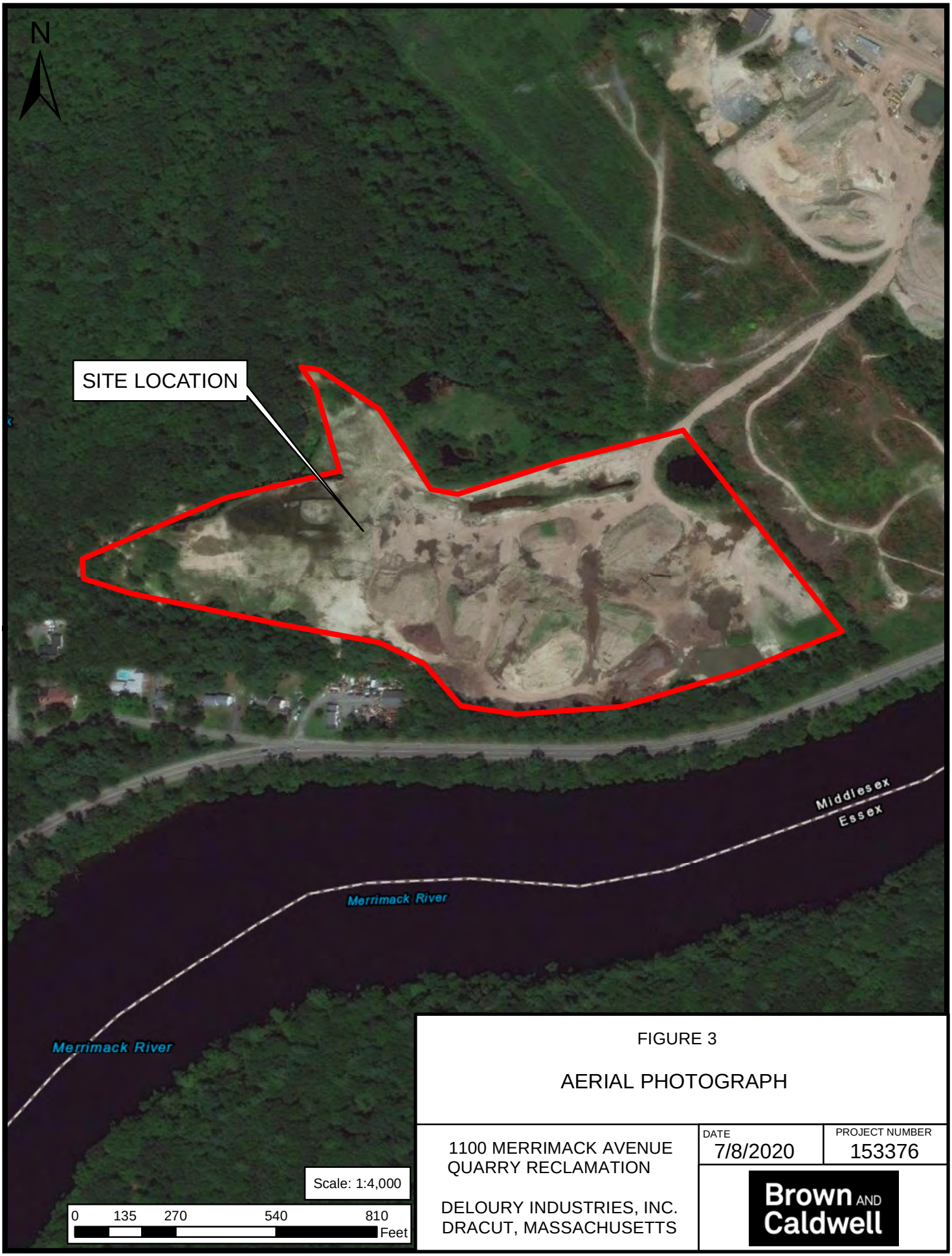


FIGURE 3

AERIAL PHOTOGRAPH

1100 MERRIMACK AVENUE
QUARRY RECLAMATION

DELOURY INDUSTRIES, INC.
DRACUT, MASSACHUSETTS

DATE 7/8/2020

PROJECT NUMBER 153376

Brown AND Caldwell

FIGURE 4

MONITORING WELL LOCATIONS MAP

1100 MERRIMACK AVENUE
QUARRY RECLAMATION

DELOURY INDUSTRIES, INC.
DRACUT, MASSACHUSETTS

DATE 3/8/2021

PROJECT NUMBER 153376

Brown AND Caldwell

User Name: KScott2

Document Path: V:\Dracut_Deloury\Figure 4_Monitoring Well Locations Map.mxd

PHASE 1

PHASE 2

PHASE 3

PHASE 4

EACH PHASE REQUIRES APPROX. 175,000 + CUBIC YARDS

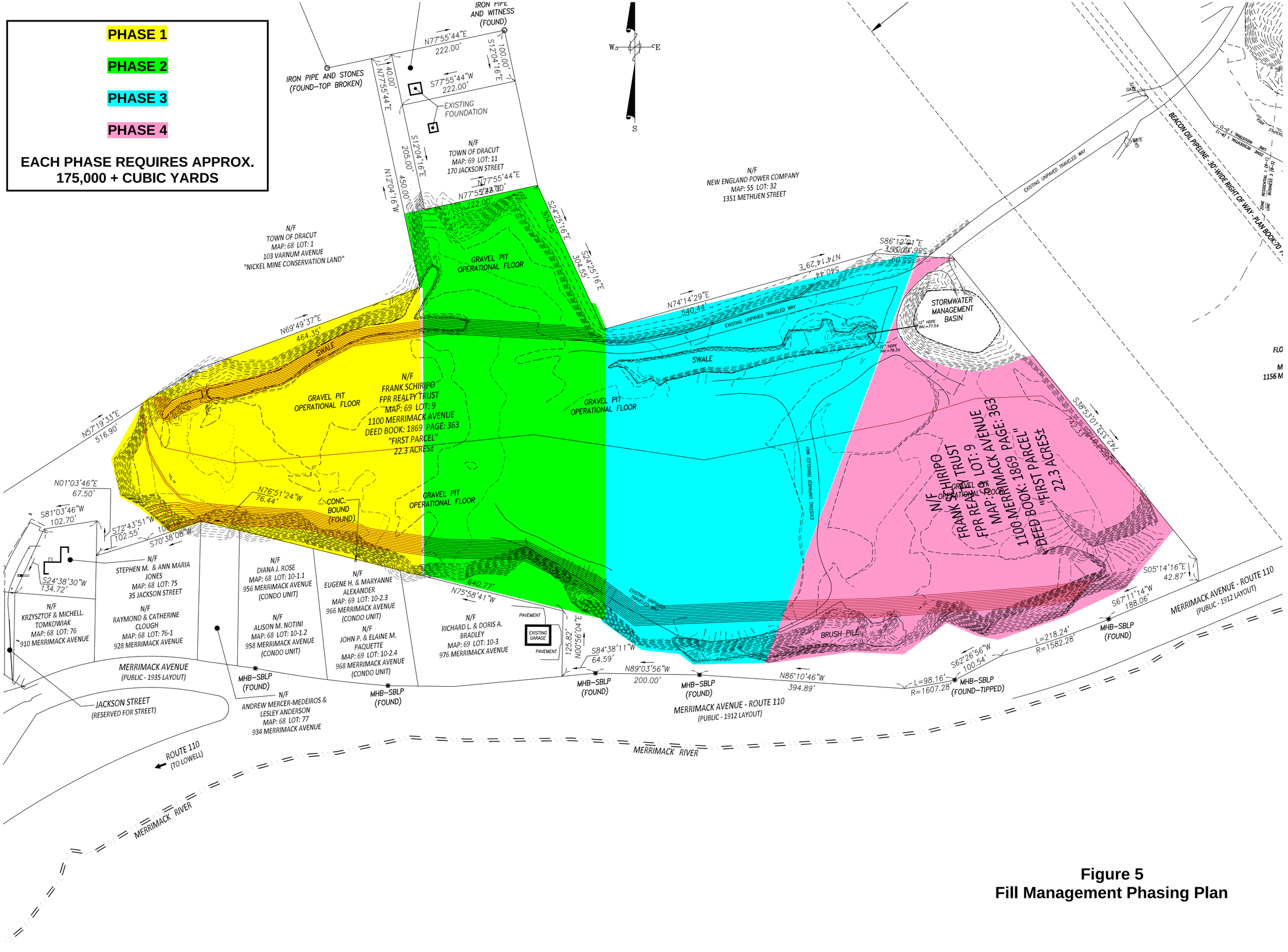


Figure 5
Fill Management Phasing Plan

Deloury Industries
100 Burtt Rd
Andover, MA 01810
T:978-475-8153
F:978-475-7177

Project Name:
1100 Merrimack Ave
Dracut, MA
01826

Sheet Name:

Project Number:

Issue Date:

Sheet Number:

Appendix A: Materials Testing Protocols

Table 1 - Acceptance Criteria
Deloury Industries, Inc
1100 Merrimack Ave
Dracut, MA

Analytical Test	Compound	Acceptance Criteria[1,2]
SVOCs	**Target PAHs**	
	Acenaphthene	<4
	Acenaphthylene	<1
	Anthracene	<1,000
	Benzo(a)anthracene	<7
	Benzo(a)pyrene	<2
	Benzo(b)fluoranthene	<7
	Benzo(g,h,i)perylene	<1,000
	Benzo(k)fluoranthene	<70
	Chrysene	<70
	Dibenzo(a,h)anthracene	<0.7
	Fluoranthene	<1,000
	Fluorene	<1,000
	Indeno(1,2,3-cd)pyrene	<7
	2-Methylnaphthalene	<0.7
	Naphthalene	<4
	Phenanthrene	<10
	Pyrene	<1,000
	Other common SVOCs	
	Bis(2-ethylhexyl)phthalate	<60
	Dibenzofuran	<100
	All Other SVOCs	To be considered on case by case basis[9]
Metals	Antimony, Total	<20
	Arsenic, Total	<20
	Barium, Total	<1,000
	Beryllium, Total	<90
	Cadmium, Total	<70
	Chromium, Total	<100
	(Chromium III)	<225
	(Chromium VI)	<100
	Lead, Total	<200
	Mercury, Total	<20
	Nickel, Total	<600
	Selenium, Total	<400
	Silver, Total	<100
	Thallium, Total	<8
	Vanadium	<400
	Zinc	<1,000
	Other Metals[3]	To be considered on case by case basis[9]
Total Petroleum Hydrocarbons (TPH)	TPH[4]	<500
Extractable Petroleum Hydrocarbons (EPH)	C_9-C_{18} Aliphatics	Summation of EPH Fractions <500
	C_{19}-C_{36} Aliphatics	
	C_{11}-C_{22} Aromatics	
Volatile Petroleum Hydrocarbons (VPH)	C_5-C_8 Aliphatics	<10
	C_9-C_{12} Aliphatics	<100
	C_9-C_{10} Aromatics	<10
Pesticides	All Pesticides	RL <10% RCS-1 or 0.05 mg/kg[5] [9]
Herbicides	All Herbicides	RL <10% RCS-1 or 0.05 mg/kg[5] [8]
Volatile Organic Compounds (VOCs)	All VOCs	<10% of RCS-1 or 0.1 mg/kg[5] [9] To be considered on a case by case basis
Polychlorinated Biphenyls (PCBs)	Total PCBs	<0.1
Per- and Polyfluoroalkyl Substances (PFAS)[9]	Perfluorodecanoic Acid (PFDA)	0.0003[6]
	Perfluoroheptanoic Acid (PFHpA)	0.0005[6]
	Perfluorohexanesulfonic Acid (PFHxS)	0.0003[6]
	Perfluorononanoic Acid (PFNA)	0.00032[6]
	Perfluorooctanesulfonic Acid (PFOS)	0.002[6]
	Perfluorooctanoic Acid (PFOA)	0.00072[6]
	Other PFAS	<0.0003[9]
Waste Characteristics	Reactive Cyanide	<250
	Reactive Sulfide	<500
	Ignitability (Flashpoint in F°)	>140
	Corrosivity (pH)	5.0-9.0 pH ≥ 4 and ≤11 to be considered on a case by case basis
General Chemistry	Specific Conductance	<2,000 uMho/cm
Net Acid Generation		pH ≥4
Field Parameters	Total Volatile Organic Vapor Screening[7]	<5 ppmv
	Debris/Solid Waste Materials	de minimis (<5% by volume ABC, all ABC < 6 inches and <1% Wood/Plastic/Paper/Wire/Pipe & other Solid Waste)
	Odor[8]	No petroleum, solvent, organic, sulfide or other nuisance odors
	Moisture Content/%Solids	No Free Liquids

Notes:
All results are reported in milligrams per kilogram (mg/kg) are for dry weight, unless otherwise noted.
Reporting limits must be low enough to allow comparison to Acceptance Criteria
Current EPA/MassDEP or other approved method required for laboratory testing; MassDEP CAM utilized where applicable
(1&2) The acceptance criteria were derived using the following MassDEP Regulations and Guidance
Massachusetts Contingency Plan 310 CMR 40.0000 (MCP)
MassDEP, Interim Policy on the Re-Use of Soil for Large Reclamation Projects Policy # COMM-15-01, August 28, 2015
(3) Other metals analysis may be requested based on-site history, location, etc.

(4) In addition to or in lieu of TPH analysis, the summation of the extractable petroleum hydrocarbon (EPH)/ volatile petroleum hydrocarbon (VPH) fractions can be utilized for TPH comparison, or each EPH fraction can be demonstrated to be less than 10% of its corresponding RCS-1 value.
(5) Whichever is greater, provided both Reporting Limits (RLs) and results are < RCS-1.
(6) The listed PFAS compounds are for the acid forms of these PFAS compounds. The PFAS RCS-1 criteria presented also apply to the respective anionic forms of these PFAS compounds. These anions may form salts with any of a number of cations resulting in a variety of possible chemical species, each having a unique CAS number
(7) TVOV screening following the MassDEP Jar Headspace Screening Procedure referenced in Policy #WSC 94-400 Attachment 2 modified to use isobutylene response factor
(8) Soil with odor control agent applied at point of origin may be considered. MSDS and other product info must be provided for review prior to acceptance.
(9) For compounds with no RCS-1 values listed in the MCP MOHML, provided there is no reason to believe such compounds would be present in the soil, the acceptance criteria are less than the RLs for those analytes as established by CAM methods.
Last update December 7, 2022.

Appendix B: Generator Profile

Generator Profile

SOIL SUBMITTAL PACKAGE CHECKLIST
DRACUT QUARRY RECLAMATION PROJECT
1100 Merrimack Ave
DRACUT, MA

Please RETURN this check list with all the supporting information

Facility Name: Deloury Construction / Agretech Corp – Dracut Quarry

Address: 1100 Merrimack Ave, Dracut, MA

Owner: Schiripo, Frank and P&R – 479 Broadway Road, Dracut, MA

Operator: Deloury Construction / Agretech Corp – 50 Jackson Street, Dracut, MA

Contact Person: Dustin White

Title: Operations Manager

Telephone#: 978-458-6502

Type of Project: Dracut Quarry Reclamation

Provide the following information in a QEP/LSP Opinion Letter

1. Frequency of sampling.

2. Laboratory Testing performed.

3. Description of site and contaminants provided

4. Description of current and former site usage/history is provided.

5. Laboratory Soil analytical reports, with laboratory QA/QC results and Chain of Custody attached.

6. Quantity of soil

7. Field screening data used to support chemical composition

8. Physical description/soil classification

9. Site figure showing soil origin, soil stockpiles, and location of all soil samples

10.Data table comparing all applicable results to Soil Acceptance Criteria

11.MassDEP Contained -in Determination provided (if applicable)

12. Confirmation that the material contain < 5% by volume ABC materials, which are < 6-inches in any dimension and that other solid wastes in the material are <1% by volume.

PROFILE NUMBER _____
(Assigned by Deloury)

A. SITE INFORMATION:

Name:	Contact:
Address:	Phone:
City:	State, Zip:
Release Tracking No. or Site ID No. (if applicable)	

B. GENERATOR INFORMATION:

Name:	Contact:
Address:	Phone:
City:	State, Zip:

C. CONSULTANT INFORMATION:

Name:	Contact:
Address:	Phone:
City:	State, Zip:

D. ESTIMATED SOIL QUANTITY:

Tons: or Cubic Yards:

E. LABORATORY ANALYSIS

Check the following laboratory analysis performed on the material to be reused (check all that apply

☐ VOCs
☐ SVOCs
☐ EPH
☐ VPH
☐ Per- and Poly-fluorinated alkyl substances (PFAS)
☐ PCBs,
☐ MCP14 Metals
☐ TCLP (if required by total levels)
☐ Conductivity
☐ pH
☐ Reactivity
☐ Ignitability
☐ Other laboratory analysis performed:

☐ Field screening performed (describe below)

Attach data summary tables and all laboratory reports for applicable samples only

F. SITE HISTORY:

☐ No	☐ Yes	Tannery operations
☐ No	☐ Yes	Textile manufacturing
☐ No	☐ Yes	Foundry operations
☐ No	☐ Yes	Dry Cleaning operations
☐ No	☐ Yes	Coal Gasification operations
☐ No	☐ Yes	Machine Shop activities
☐ No	☐ Yes	Salvage/Junk Yard operations
☐ No	☐ Yes	Petroleum Storage facility (more than household quantities)
☐ No	☐ Yes	Plating/metal finishing operations
☐ No	☐ Yes	Chemical Production operations
☐ No	☐ Yes	Circuit Board Manufacturing
☐ No	☐ Yes	Herbicide or Pesticide were used or likely used, stored, or disposed
☐ No	☐ Yes	Urban Fill Soils are present
☐ No	☐ Yes	Boston Blue Clay is present
☐ No	☐ Yes	Soil with elevated natural background of Arsenic are suspected to be present
☐ No	☐ Yes	The site was a dumping ground for dredge spoils, fill soil, ash, or other waste
☐ No	☐ Yes	The site is classified as RCS-1

Past Use(s):

Current Use(s):

G. PHYSICAL SOIL DESCRIPTION:

Physical Description (sand, gravel, silt, peat, fill, etc.):

Check if the following materials are present (check all that apply):

☐ Clay ☐ Coal ☐ Ash ☐ Suspect Asbestos Materials

☐ Construction Debris ☐ Vegetative Matter ☐ Other Material:_____

H. SOIL SAMPLING METHODOLOGY:

Sampling Methods (check all that apply):

☐ Grab ☐ Composite ☐ Headspace Screened

No. of Individual Samples/Composite Soil Sample:_____

☐ Visually Contaminated ☐ Olfactory Contaminated ☐ Other:_____

I. SOIL CHARACTERIZATION METHODOLOGY:

Soil Characterization (check all that apply):

☐ Stockpile ☐ In-situ ☐ Other:_____

J. CERTIFICATION

I, the generator, having used due diligence and determined that the soil described within this Soil Submittal Package and intended for reuse at Dracut Quarry Reclamation Project meets the acceptance criteria described within the Reclamation Plan. There is no reason to suspect or believe soil intended for reuse at Dracut Quarry is classified as a hazardous waste or contains any other contaminants than those at levels described herein.

Signature of Generator: _____ Date:_____

_____

PROFILE NUMBER _____

SITE INFORMATION:

Name:	Contact:
Address:	Phone:
City:	State, Zip:
Release Tracking No. or Site ID No. (if applicable)	

Field Screening Summary Table			
Truck Number	**Shipment Date (mm/dd/yyyy)**	**PID Screening Results (ppmV)**	**Observations[(1)]**

Notes:

1: Document any evidence of staining/discoloration/odors/drum or tank fragments) or unacceptable materials

Appendix C: Final Grading Plans

DANA F. PERKINS, inc.
Consulting Engineers & Land Surveyors

February 25, 2021

Deloury Industries
Chris Ryder
100 Burtt Road
Andover, MA 01810

Re: "First Parcel" Fill Management Plan
1100 Merrimack Avenue
Dracut, Massachusetts

Dear Mr. Ryder,

Dana F. Perkins, Inc. has reviewed the "Fill Management Plan" for 1100 Merrimack Avenue located in Dracut, Massachusetts prepared by Deloury Industries dated February 16, 2021.

Based on our review, it is my opinion that the "Fill Management Plan" adequately shows the proposed grading for the Site.

Please feel free to contact our office at (978) 858-0680 should you have any questions or require additional information.

Very truly yours,
Dana F. Perkins, Inc.

Andrew Pojasek, P.E.

COMMONWEALTH OF MASSACHUSETTS
ANDREW M. POJASEK
CIVIL
No. 50639
REGISTERED
PROFESSIONAL ENGINEER

Corporate Offices: 1057 East Street • Tewksbury, MA 01876 • Phone: (978) 858-0680 • Fax: (978) 640-0237

SCALE: 1"=30'

N/F
TOWN OF DRACUT
MAP: 68 LOT: 1
103 VARNUM AVENUE
"NICKEL MINE CONSERVATION LAND"

MAP: 69 LOT: 11
170 JACKSON STREET

N12°04'16"W
450.00'

N77°55'44"E
222.00'

S24°25'16"E
304.55'

GRAVEL PIT
OPERATIONAL FLOOR

EARTHEN BERM - APPROXIMATE

N69°49'37"E
464.35'

SWALE

SWALE CROSSING

18" RCP PIPE

HEADWALLS

STONE LINED S

N/F
FRANK SCHIRIPO
FPR REALTY TRUST
MAP: 69 LOT: 9
1100 MERRIMACK AVENUE
DEED BOOK: 1869 PAGE: 363
"FIRST PARCEL"
22.3 ACRES±

GRAVEL PIT
OPERATIONAL FLOOR

GRAVEL PIT
OPERATIONAL FLOOR

N57°19'33"E
516.90'

BOULDERS

N01°03'46"E
67.50'

S81°03'46"W
102.70'

S72°43'51"W
102.55'

109.19'

S70°38'08"W

N76°51'24"W
76.44'

CONC.
BOUND
(FOUND)

GRAVEL PIT
OPERATIONAL FLOOR

WELL LOCATION

S24°38'30"W
134.72'

N/F
KRZYSZTOF & MICHELL.
TOMKOWIAK
MAP: 68 LOT: 76
910 MERRIMACK AVENUE

N/F
STEPHEN M. & ANN MARIA
JONES
MAP: 68 LOT: 75
35 JACKSON STREET

N/F
RAYMOND & CATHERINE
CLOUGH
MAP: 68 LOT: 76-1
928 MERRIMACK AVENUE

N/F
DIANA J. ROSE
MAP: 68 LOT: 10-1.1
956 MERRIMACK AVENUE
(CONDO UNIT)

N/F
ALISON M. NOTINI
MAP: 68 LOT: 10-1.2
958 MERRIMACK AVENUE
(CONDO UNIT)

N/F
EUGENE H. & MARYANNE
ALEXANDER
MAP: 69 LOT: 10-2.3
966 MERRIMACK AVENUE
(CONDO UNIT)

N/F
JOHN P. & ELAINE M.
PAQUETTE
MAP: 69 LOT: 10-2.4
968 MERRIMACK AVENUE
(CONDO UNIT)

640.77'
N75°58'41"W

N/F
RICHARD L. & DORIS A.
BRADLEY
MAP: 69 LOT: 10-3
976 MERRIMACK AVENUE

PAVEMENT

EXISTING
GARAGE

PAVEMENT

EXISTING UNPAVED
GRAVELED WAY

125.82'
N00°56'04"E

S84°38'11"W
64.59'

N89°03'56"W
200.00'

MERRIMACK AVENUE
(PUBLIC - 1935 LAYOUT)

MHB–SBLP
(FOUND)

MHB–SBLP
(FOUND)

MHB–SBLP
(FOUND)

JACKSON STREET
(RESERVED FOR STREET)

N/F
ANDREW MERCER-MEDEIROS &
LESLEY ANDERSON

WATER
TY

Deloury Industries
100 Burtt Rd
Andover, MA 01810
T:978-475-8153
F:978-475-7177

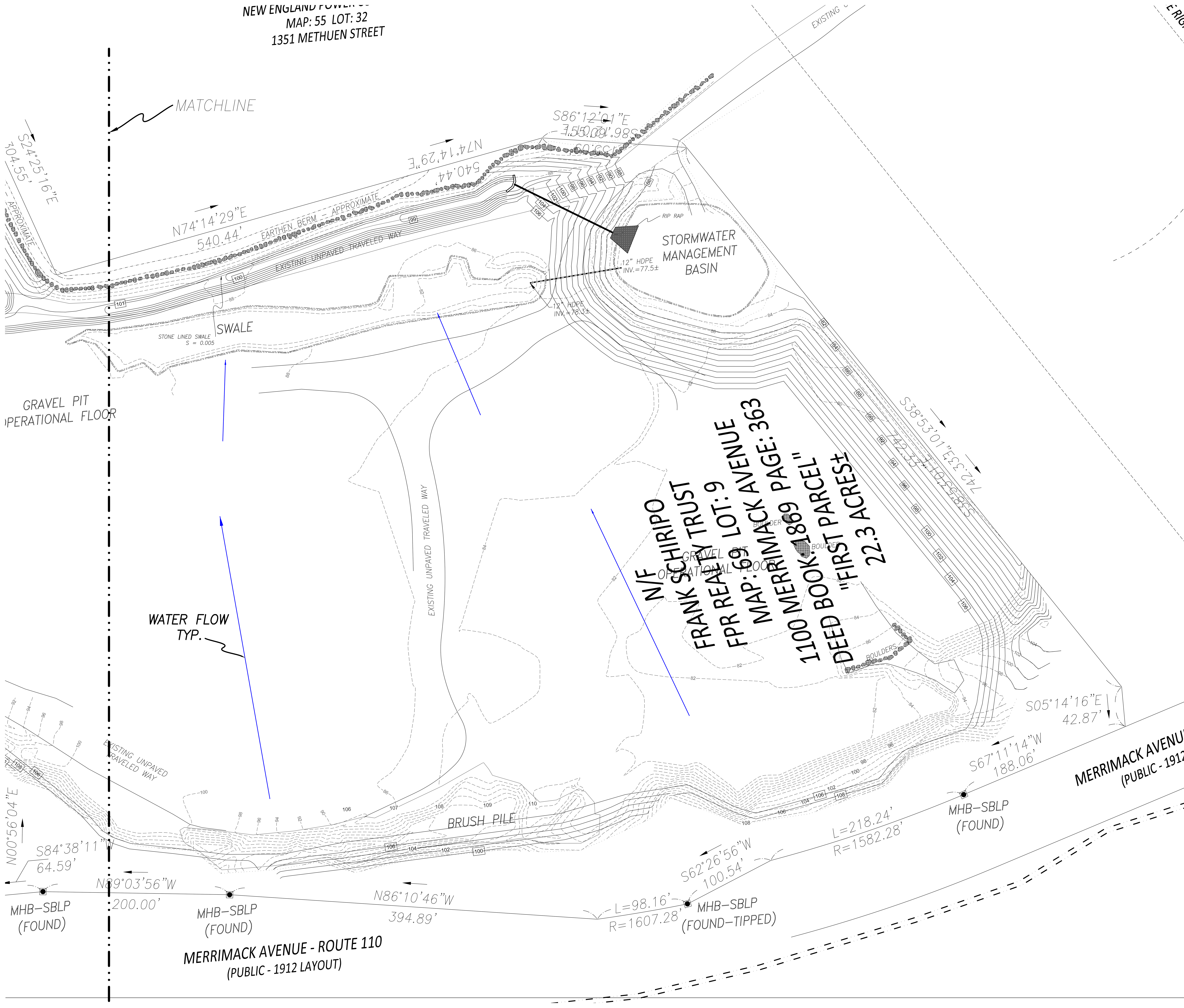
Project Name:
1100 Merrimack Ave
Dracut, MA
01826

Sheet Name:
Figure 5 -
Fill Management
Plan

Project Number:

Issue Date:
02-23-2021

Sheet Number:
1 OF 2


NEW ENGLAND POWER CO
MAP: 55 LOT: 32
1351 METHUEN STREET
MATCHLINE
S86°12'01"E
155.09'
N74°14'29"E
540.44'
S24°25'16"E
304.55'
EARTHEN BERM - APPROXIMATE
EXISTING UNPAVED TRAVELED WAY
RIP RAP
STORMWATER MANAGEMENT BASIN
12" HDPE INV.=77.5±
12" HDPE INV.=78.3±
SWALE
STONE LINED SWALE S = 0.005
GRAVEL PIT OPERATIONAL FLOOR
S38°53'01"E
742.33'
N/F
FRANK SCHIRIPO
FPR REALTY TRUST
MAP: 69 LOT: 9
1100 MERRIMACK AVENUE
DEED BOOK 1869 PAGE: 363
"FIRST PARCEL"
22.3 ACRES±
BOULDER
BOULDERS
WATER FLOW TYP.
EXISTING UNPAVED TRAVELED WAY
BRUSH PILE
S05°14'16"E
42.87'
S67°11'14"W
188.06'
MERRIMACK AVENUE
(PUBLIC - 1912 L
MHB-SBLP (FOUND)
L=218.24'
R=1582.28'
S62°26'56"W
100.54'
L=98.16'
R=1607.28'
MHB-SBLP (FOUND-TIPPED)
N86°10'46"W
394.89'
N89°03'56"W
200.00'
S84°38'11"W
64.59'
N00°56'04"E
MERRIMACK AVENUE - ROUTE 110
(PUBLIC - 1912 LAYOUT)

Deloury Industries
100 Burtt Rd
Andover, MA 01810
T:978-475-8153
F:978-475-7177

Project Name:
1100 Merrimack Ave
Dracut, MA
01826

Sheet Name:
Figure 5 - Fill Management Plan

Project Number:

Issue Date:
02-23-2021

Sheet Number:
2 OF 2

Appendix D: Stormwater Management Plan

Stormwater Management Plan

Prepared for
Deloury Construction Company, Inc.
December 2019

Stormwater Management Plan

Prepared for
Deloury Construction Company, Inc.
December 2019

Brown AND Caldwell
1 Tech Drive, Suite 310
Andover, MA 01810

Table of Contents

Section 1

Introduction

1.1 Purpose

This document presents the details of a Stormwater Management Plan ("SWM Plan") for the property located at 1100 Merrimack Avenue, Dracut, Massachusetts.

1.2 Site Location

The subject location of this SWM Plan is that property identified as 1100 Merrimack Avenue, Dracut, Massachusetts (the "Property") in which Deloury Construction Company, Inc. ("Deloury" or the "Applicant") operates its existing organic and natural materials processing and composting operation. The Property consists of a single parcel of land identified by the Dracut Assessor's Department on Map 69 as Lot 9 and is comprised of approximately 22 acres of land.

Please refer to the Plot Plan in Appendix A of the Special Permit Application for further details.

Section 2

Existing Conditions

Although the site is exempt from filing of a National Pollution Discharge Elimination System permit (refer to the Environmental Management Plan in Appendix C), this SWM Plan has been created to minimize stormwater runoff from the Property.

Currently, stormwater on the Property is controlled by overland drainage that flows to two trenches that are oriented in a south-north direction in the western portion of the property. The northern most trench is connected via culvert to a stormwater basin. The stormwater basin, situated in the northwestern corner of the Property, does not have an outlet; rather, stormwater infiltrates into the ground. Elsewhere, the Property is graded such that stormwater does not accumulate around stockpiles but into low-lying areas where it can infiltrate into the ground. There is no point source discharge of stormwater from the Organic and Natural Materials processing operational area.

2.1 Wetland Area

A man-made drainage swale was created at the northwestern portion of the Property to manage stormwater as part of active quarry operations. As discussed further in the report prepared by Norse Environmental, which such report is attached here as Appendix A, the drainage swale was certified as a vernal pool.

In accordance with the Dracut wetlands bylaw, current operations are located greater than 150 feet (wetlands protection buffer of 100 feet, plus 50 feet setback) from the drainage swale. Water from the drainage swale is used for dust control at the facility, and the use of the accumulated water also prevents flooding conditions at the property and adjacent, downgradient properties during heavy rain events.

According to the National Heritage and Endangered Species Program (NHESP) 2017 Priority and Estimated Habitat Map, and the map available on the MassDEP online data viewer, no NHESP Priority Habitats of Rare Species, Estimated Habitats of Rare Wildlife, or Areas of Critical Environmental Concern (ACECs) are present on the Property. Please see the attached NHESP site plan (Appendix B).

2.2 Stormwater System Details

Currently stormwater infiltrates directly into the ground or is directed into on-site stormwater trenches oriented south to north in the western portion of the site, as well as a retention basin. In addition, the Property's operational area is primarily situated at a lower elevation that the perimeter of the Property, resulting in stormwater that collects and infiltrates into the ground within the Property, rather than discharging offsite via a point source.

A stone-lined swale and check dam is located in an area that drains a portion of the unpaved roadway that connects the Property to the entrance at 50 Jackson Street, which captures sediments that may flow with stormwater during heavy rain events. A stone-lined drainage swale and check dams have also been installed along the entrance road at 50 Jackson Street to minimize sediment runoff from the road. The roadway is swept as needed and the catch basin periodically cleaned to prevent sediment discharge to the Merrimack River.

Section 3

Stormwater System BMPs

The following table is a list of Best Management Practices (BMPs) that have be installed/instituted as part of the stormwater collection and treatment system.

BMP	Details
Retention Basin	The basin, having no outlet, slowly fills with water from runoff and causes sediment to fall to the bottom.
Stone Lined Drainage Swales (facility entrance and unpaved road to Property)	The stone lined channels with check dams are located in two areas along access roads. They serve to slow down runoff and trap sediments as the water slows down and drops its sediment load.
Stormwater Trenches	The trenches serve to capture stormwater, providing sediment settling prior to stormwater flows into the retention basin.
Maintenance Procedures	Procedures to maintain the stormwater system are contained in a section within this document called "Stormwater System O&M" (Operations and Maintenance).
Good Housekeeping	Good housekeeping keeps debris out of the stormwater system and keep it in good repair so that it can effectively collect and treat stormwater runoff and snowmelt.
Street Sweeping (facility entrance)	Weekly, or 2-3 times weekly or as needed as determined by facility personnel to minimize debris on the ground. If needed, the paved driveway area is manually cleared of dirt and/or debris.

3.1 Site Plans

The various stormwater system components and erosion control devices are included on the Site Plan.

3.2 Stormwater Flow

The Property is designed and operated such that stormwater at the operation at the Property does not discharge offsite. At Property's access roads, discharges do not discharge untreated stormwater into, or cause erosion to, wetlands or wetland resource areas. As noted in Section 2.2 of this SWM Plan, a majority of stormwater generated at the Property infiltrates the ground or flows towards two trenches and one basin on the Property where sedimentation and infiltration occur. In the area of the Property entrance, a rip-rap channel with check dams provides stormwater treatment prior to discharge from the Property.

3.3 Materials and Potential Pollutants

Potential pollutants and their sources for the Property are defined in the following table:

Potential Pollutant	Locations
Silt and Sediments	Site Activities (unpaved site)
Diesel Fuel	Vehicles Mobile Equipment
Gasoline	Vehicles
Engine Coolant	Vehicles Mobile and Stationary Equipment
Batteries	Vehicles Mobile and Stationary Equipment
Motor Oil	Vehicles Mobile and Stationary Equipment
Hydraulic Oil	Vehicles Mobile and Stationary Equipment

Section 4

Stormwater System O&M

The stormwater system located on the Property is on privately owned land; therefore, the operation and maintenance of the stormwater system is the responsibility of the owners. The various BMPs are operated and maintained according to manufacturer's instructions.

4.1 Check Dams

Check dams are inspected weekly for damage and repaired as necessary. If stones have been moved out of place or excessive sediment is trapped, repair and/or maintenance will be conducted immediately.

4.2 Retention Basin

The basin is inspected weekly for damage and to determine if the basin capacities have been impacted by sediment. Repairs and/or maintenance will be performed immediately as needed.

4.3 Stormwater Channels

Stone-lined channels are inspected weekly for damage and repaired as necessary. If stones have been moved out of place or excessive sediment is trapped, repair and/or maintenance will be conducted immediately.

4.4 Maintenance Procedures

Maintenance of system components occur at regular intervals so that the system's effectiveness is maintained.

4.5 Training

Training of facility staff takes place at the Property. Installation techniques, maintenance of silt fences and good housekeeping practices are taught to avoid impacting wetland resource areas.

Appendix A: Norse Environmental Report

NORSE ENVIRONMENTAL SERVICES, INC.
92 Middlesex Road, Unit 4
Tyngsboro, MA 01879
TEL. (978) 649-9932 • FAX (978) 649-7582
Website: www.norseenvironmental.com

December 3, 2019

Deloury Construction Company, Inc.
100 Burtt Road
Andover, MA 01810

Re: 1100 Merrimack Avenue
Dracut, MA 01826

Mr. Deloury;

Deloury Construction Company, Inc. ("Deloury") received a letter from the Dracut Conservation Administrator dated August 5, 2019 (the "Letter"), inquiring about Deloury's operations on 50 Jackson Street and 1100 Merrimack Avenue as it related to the certified vernal pool. As a result, Deloury retained Norse Environmental Services, Inc. ("Norse") to assess, and Norse has produced this report to respond to those questions contained in the Letter.

The MassGIS mapping shows a certified vernal pool ("CVP"), CVP No. 4951, at 1100 Merrimack Avenue, Dracut (the "Property"). Through its research, Norse has determined that an individual went onto the property and collected data to certify a vernal pool within an active gravel pit on 4/29/2007. The Natural Heritage & Endangered Species Program ("NHESP") processed that information and certified the vernal pool on 9/16/2008. Please see the enclosed information regarding the CVP process and location attached here as Exhibit A.

By way of background, the area that was certified is a man-made drainage/groundwater ditch located within an active gravel pit. The ditch is not a jurisdictional wetland resource area. As further explained below, the Massachusetts Wetlands Protection Act Regulations (310 CMR 10.00) ("WPA") does not extend its protections to areas that typify upland or disturbed areas, and therefore the area is not subject to such regulations.

Importantly, the area at issue on the Property is not within an Area Subject to Protection under Massachusetts law. Pursuant to 310 CMR 10.04, Vernal Pool Habitat is defined as follows:

> "**confined basin depressions** which, at least in most years, hold water for a minimum of two continuous months during the spring and/or summer, and which are free of adult fish populations, as well as the area within 100 feet of the mean annual boundaries of such depressions, to the extent that such habitat is **within an Area Subject to Protection under M.G.L. c. 131, § 40 as** specified in 310 CMR

10.02(1). These areas are essential breeding habitats and provide other extremely important wildlife habitat functions during non-breeding season as well, for a variety of amphibian species such as wood frog (Rana sylvatica) and the spotted salamander (Ambystoma macultum) and are important habitat for other wildlife species." (emphasis added)

The area at issue is a man-made drainage/groundwater ditch. The ditch is not a confined basin or depression, as it connected by culverts to direct water into a sedimentation basin for the gravel pit operations on the Property. Additionally, the water from the ditch is occasionally used for dust control at the Property.

The WPA protects CVPs and up to 100 feet beyond the CVP boundary by preventing alterations which would result in impairment of the wildlife habitat function of the CVP. As mentioned above, **in order to receive protection through the WPA, however, CVPs can only occur within a jurisdictional wetland 'Resource Area'**. If a CVP is located in a 'Resource Area', protection extends to the CVP itself, as well as to the portion of the 100-foot zone surrounding the CVP (referred to as 'Vernal Pool Habitat') that is **within a Resource Area**. However, **WPA protection of 'Vernal Pool Habitat' does not extend into non-jurisdictional upland or the buffer zone of a resource area.**

The Areas Subject to Protection are set forth under 310 CMR 10.02(1)(a-f). As stated in the WPA, 'Areas Subject to Protection' is used synonymously with 'Resource Area', and include the following areas below:

(1) Areas Subject to Protection under M.G.L. c. 131, § 40. The following areas are subject to protection under M.G.L. c. 131, § 40:

(a)

any bank,		the ocean
any freshwater wetland,		any estuary
any coastal wetland,		any creek
any beach,	bordering	any river
any dune,	on	any stream
any flat,		any pond
any marsh		or any lake
or any swamp		

(b) Land under any of the water bodies listed above
(c) Land subject to tidal action
(d) Land subject to coastal storm flowage
(e) Land subject to flooding
(f) Riverfront area

The certified drainage/groundwater ditch is NOT located within or classified as any of the above Areas Subject to Protection. The ditch is not Land under Water Bodies and Waterways because it is not an ocean, estuary, creek, river, stream, pond or lake. The ditch is not a stream because it is not connected to a bordering vegetated wetland. The ditch is not a bordering vegetated wetland because it lacks vegetation and does not border on a bank, lake, stream, pond, ocean, river or estuary. In fact, under 310 CMR 10.02, the definition of pond specifically excludes

human-made bodies of open water made in connection with gravel pits or quarries excavated from upland areas unless inactive for five or more consecutive years. The ditch is not classified as Isolated Land Subject to Flooding (ILSF) under the WPA because its connected by culverts and the water is directed to a sedimentation basin. The ditch is not located within the Riverfront Area or Bordering Land Subject to Flooding or the 100-year flood plain. Please see the enclosed mapping of the site attached here as Exhibit B.

In summary, while conservation commissions are empowered to prevent the impairment of the capacity of Vernal Pool Habitat to function as a wildlife habitat, protection does not extend to non-jurisdictional areas. The ditch is a functioning component of an active gravel pit and not a resource area under 310 CMR 10.02(1)(a-f). NHESP certifies vernal pools based on physical and biological documentation provided to the Department. NHESP does NOT conduct site visits to verify the vernal pool is located within a jurisdictional resource area. Vernal pools are **presumed** present in jurisdictional wetland 'Resource Areas" when mapped and certified by NHESP. Here, that is an incorrect presumption.

In the Preface Appendices to the WPA, the Preface to Wetlands Regulations Relative to Protection of Wildlife Habitat, 1987 Regulatory Revisions (the "Preface") further discusses 'wildlife habitat' and states the following:

> "Most importantly, the regulations follow a strict interpretation of the statutory definition of "wildlife habitat", consistent with the agreement expressed in the preamble. Unlike the other interests protected under the M.G.L. c. 131, § 40, the term "wildlife habitat" is defined in the legislation. Wildlife habitat means those resource areas which, due to certain physical characteristics, provide "important" wildlife habitat functions (i.e., "important food, shelter, migratory or overwintering areas, or breeding areas for wildlife"). Thus while resource areas are presumed to be significant to the protection of other interests whenever they play a role in protecting the interest, a particular site must play a role in providing important wildlife habitat functions, and must do so because of the presence of specific physical habitat characteristics, in order to warrant a presumption of significance under the new wildlife regulations."

In Section III of the Preface, it goes on to state:

> "A. By limiting the definition of wildlife habitat to include only those areas which "due to (certain physical) characteristics" provide "important" wildlife habitat functions, the Department believes the Legislature meant to protect only those wildlife habitats which, though they may sometimes be present elsewhere, are particularly prevalent and/or valuable in wetland resource areas. **The scientific literature indicates that virtually everything, except concrete, provides habitat for at least some wildlife species, yet the Department does not believe it was the intention of the Legislature to protect lawns, cemeteries, golf courses, landfills, or wildlife habitats which typify "upland" areas, just because they happen to be located in wetland resource areas**. Based on detailed scientific assessments of the wildlife habitats found in each resource area, certain resource

areas (or portions of resources areas) **which are generally lacking in special wetland wildlife habitat characteristics and functions, are not presumed in the regulations to be significant to the protection of wildlife habitat.** For those resource areas which are presumed significant, only specified wildlife habitat characteristics and functions are protected." (emphasis added).

It is clear that the intent of the WPA was not to protect wildlife habitat in areas that typify upland or disturbed areas. Although gravel pits and quarries are not specifically listed in the above referenced Preface, it is obvious these areas lack any significant habitat, such as vegetation, wooded forest, canopy structure, leaf litter, soils, wildlife, birds, mammals, fisheries, or shelter given the nature of the business and disturbance surrounding the drainage/groundwater ditch on the Property. This point is further elucidated in 310 CMR 10.57 where the regulations note:

> "Certain portions of Bordering Land Subject to Flooding are also likely to be significant to the protection of wildlife habitat. These include all areas on the ten year floodplain or within 100 feet of the bank or bordering vegetated wetland (whichever is further from the water body or waterway, so long as such area is contained within the 100 year floodplain), and all vernal pool habitat on the 100 year floodplain, **except for those portions of which have been so extensively altered by human activity that their important wildlife habitat functions have been effectively eliminated (such "altered" areas include paved and graveled areas, golf courses, cemeteries, playgrounds, landfills, fairgrounds, quarries, *gravel pits*, buildings, lawns, gardens, roadways (including median strips, areas enclosed within highway interchanges, shoulders, and embankments), railroad tracks (including ballast and embankments), and similar areas lawfully existing on November 1, 1987 and maintained as such since that time).**" (emphasis added)

Throughout the WPA, the regulations specifically exempt the habitat value of a gravel and it is clear the regulations had no intention of protecting the habitat value in such upland and non-resource areas that have been extensively mined and altered.

NHESP presumes that the drainage ditch is a CVP. However, this presumption is incorrect because the area at issue is a man-made drainage ditch. The drainage ditch is not located in an Area Subject to Projection, it is located in an area that typifies an upland or a disturbed area, the protections under the Dracut wetland regulations and the WPA do not extend to it.

If you have any questions or concerns regarding the above information, please do not hesitate to call.

Sincerely,

Maureen Herald

Maureen Herald, PWS

Appendix B: 2017 NHESP MAP

NHESP Map - 1100 Merrimack