

MILL SEAT LANDFILL
FACILITY ID NO. 8-2648-00014
RIGA, NEW YORK

DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

PROPOSED SOIL BORROW PROJECT

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SOIL BORROW PROJECT
Town of Riga
Monroe County, New York

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GLOSSARY

Common Acronyms

CFR – Code of Federal Regulations

dB – Decibel

dBA – A-Weighted Decibel (see definition section)

DEC – Department of Environmental Conservation (same as NYSDEC)

DEIS – Draft Environmental Impact Statement

DSEIS – Draft Supplemental Environmental Impact Statement

FEIS – Final Environmental Impact Statement

FSEIS – Final Supplemental Environmental Impact Statement

BAUP – Borrow Area Use Plan

MSL – Mean Sea Level

MSW – Municipal Solid Waste

NAD – North American Datum

NAVD - North American Vertical Datum

NGVD – National Geodetic Vertical Datum

NYCRR – New York Codes, Rules and Regulations

NYSDEC – New York State Department of Environmental Conservation (same as DEC)

OPRHP – Office of Parks, Recreation and Historic Preservation

QA – Quality Assurance

QC – Quality Control

SEQR – State Environmental Quality Review

SEQRA – State Environmental Quality Review Act

SPDES – State Pollutant Discharge Elimination System

SWMF - Solid Waste Management Facility

SWPPP (or SWP3) – Storm Water Pollution Prevention Plan

TOGS – Technical and Operational Guidance System

USACOE – United States Army Corps of Engineers

USEPA – United States Environmental Protection Agency

USGS – United States Geological Survey

WMNY - Waste Management of New York, LLC

Definitions

A-Weighted Decibel – Sound level measurement that corresponds to the portion of the sound frequency spectrum to which the human ear is most sensitive.

Bedrock - Cemented or consolidated earth materials exposed on the earth's surface or underlying unconsolidated earth materials, including decomposed and weathered rock and saprolite. (Saprolite is disintegrated and decomposed rock that lies in its original place.)

Borrow Area – Location where soil is excavated for use at another location.

Drainage Swales – Constructed drainage trenches to direct run-off water that has not contacted solid waste, from areas around the landfill to the appropriate retention basin locations.

Groundwater - Water below the land surface in a saturated zone of soil or rock. This includes perched water separated from the main body of groundwater by an unsaturated zone.

Groundwater Table - The surface of a body of unconfined groundwater between the zone of saturation and zone of aeration at which the pressure is equal to that of the atmosphere. Groundwater table is not the same as the potentiometric head level in a confined aquifer.

Hertz - A common unit of measure, used in noise evaluations to express the frequency of a sound wave (cycles per second).

Hydraulic Gradient – Slope of the water table (or potentiometric head level). The hydraulic gradient is equal to the change in total head of the water table between two points divided by the horizontal distance between these points.

Infiltration - Water ordinarily derived from precipitation that permeates a soil layer.

Leq – Equivalent steady-state sound level which contains the same acoustic energy as the time varying sound level during a selected time period.

Municipal Solid Waste - Combined household, commercial and institutional waste materials generated in a given area.

Sedimentation Basin – Containment reservoir designed to hold stormwater runoff for a sufficiently long time to allow suspended solids to settle out, and make the stormwater suitable for release to a stream or other natural water body.

Surface Water - Lakes, bays, sounds, ponds, impounding reservoirs, perennial streams and springs, rivers, creeks, estuaries, marshes, inlets, canals, and all other perennial bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private.

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1.0 INTRODUCTION

This Draft Supplemental Environmental Impact Statement (DSEIS) has been prepared as a result of a Solid Waste Management Facility Permit Modification application for construction and operation of a soil borrow project at the Mill Seat solid waste disposal facility, in the Town of Riga, Monroe County, New York. Monroe County ("the County") is the owner and permittee of the Mill Seat Landfill. The Mill Seat Landfill is operated by Waste Management of New York, LLC (WMNY), under a lease agreement with Monroe County.

The currently permitted landfill and associated operations will be referred to in this document as the "Mill Seat Facility" or the "facility" and the land on which the currently permitted Mill Seat Landfill is located will be referred to as the "landfill site" or the "site". The landfill's Solid Waste Management Facility (SWMF) Permit I.D. number is 8-2648-00014. The location of the facility is shown on Figure 1-1. The facility property leased to WMNY is approximately 385 acres in size.

1.1 Description of the Action and Setting

The County is seeking a 6 NYCRR Part 360, SWMF Permit modification from the New York State Department of Environmental Conservation (NYSDEC) to construct and operate two soil borrow areas, approximately 20 acres and 42 acres in size, which will provide on-site soils for operation of the permitted landfill. (The construction and operation of the soil borrow areas will be referred to hereafter as the "project" or the "soil borrow project.") Currently, soils for landfill construction and operation are obtained from existing borrow areas at the Mill Seat Landfill, but there will be inadequate soil volumes from these areas to construct and operate the presently permitted footprint area.

The facility is approximately 1 mile south of the Village of Bergen. Site access is from Interstate Route 490, then east a short distance on NYS Route 33A to Brew Road. After following Brew Road south for approximately 3,000 feet, the entrance to the Mill Seat Facility is reached (see Figure 1-1). Internal roadways have been developed on-site to provide access to various parts of the facility. Access to the proposed soil borrow project would be via internal roadways, which would eliminate the need to haul soils on public roads or highways. The proposed soil borrow area limits have been shown on Figure 1-2.

1.2 Impacts of the Action and Mitigation

The development of the soil borrow project for the Mill Seat Facility, if approved, would result in the permanent removal of approximately 1,162,000 cubic yards of soil from the soil borrow areas for use in operation of the landfill, and permanent alteration of the topographic features of the affected areas.

Potential environmental impacts do exist for this project, and are similar to those associated with the ongoing soil borrow activities for the facility, including potential impacts on surface and groundwater, land use, noise and aesthetics. Potential impacts will be minimized through operational controls, planning, facility design features and site selection. The project will result in a temporary loss of 62 acres of agricultural fields, meadows and forested areas, some of which presently function as habitat for wildlife. This loss will be mitigated by implementation of the proposed habitat management plan. This type of grassland habitat provides diversity when interspersed with the existing woodland habitat that is abundant in the surrounding areas.

Significant potential environmental impacts of the proposed project, as identified during the scoping process by Monroe County, WMNY, its consultants, NYSDEC and interested public citizens, and each has been evaluated in the completion of this Draft Supplemental Environmental Impact Statement (DSEIS).

In order to address potential significant adverse environmental impacts, all applicable provisions of 6 NYCRR Part 360-2.3(l) and Part 422, which regulate construction and operation of soil borrow activities at solid waste management facilities, will be implemented. Further mitigation is provided by the isolated location, natural topography, adequate buffer distances, and the watershed characteristics of the project site. In addition, NYSDEC has monitors assigned to the Mill Seat Landfill who routinely visit the site to inspect operations.

1.3 Alternatives

The alternatives to the proposed soil borrow project, which have been considered in this DSEIS, include alternative sites, alternative sizes, alternative design and operation, and the “no action” alternative. In approaching the evaluation of alternatives, the applicant has complied with the requirements of the New York State Environmental Quality Review Act (SEQRA) and the corresponding State Environmental Quality Review (SEQR) regulations found in 6 NYCRR Part

617. As described in Part 617 Section 9, this DSEIS contains “a description and evaluation of reasonable alternatives to the action that are feasible, considering the objectives and capabilities of the project sponsor.”

1.4 SEQR Overview

This project is being reviewed pursuant to the SEQRA, to identify potentially significant adverse environmental impacts and to establish methods and procedures to prevent or mitigate any significant potential adverse impacts. Because of its direct involvement as owner and permittee, and required discretionary authority over aspects of the project, the County has been designated SEQR Lead Agency. The SEQR review of the project must be completed before the NYSDEC and the County approve and undertake the project, respectively. NYSDEC has discretionary approval over the issuance of the SWMF Permit modification and is therefore an involved agency under SEQRA.

The primary tool of the SEQR process is the Environmental Impact Statement (EIS). Based on the nature and magnitude of the proposal, it has been determined that this proposed action may have a significant adverse impact on the environment. This DSEIS has been prepared to identify such significant potential impacts and to identify ways to minimize adverse environmental effects. Since Draft and Final Environmental Impact Statements (see Section 10 - References 1 and 2) were prepared for the facility during the permitting that was completed in 1990; as a result, only the potential significant adverse impacts associated with the soil borrow project that were not addressed in the prior SEQR analyses, will be included in the DSEIS. It should be noted here that Draft and Final Supplemental Environmental Impact Statements (see Section 10 – References 3 and 4) were produced for the Mill Seat Facility in 1990 associated with the proposal to reduce the footprint of the landfill from 104.5 to approximately 95 acres.

A very important aspect of SEQR is its public participation component. There have been various opportunities provided for public participation throughout SEQR’s EIS process. This included distribution of the scoping document to all interested and involved agencies as well as holding a public scoping meeting on December 2, 2009, at the Town Hall in the Town of Riga, 6460 East Buffalo Road, Churchville, NY 14428. In response to the scoping document distribution and scoping meeting, two individuals (including a NYSDEC representative) took the opportunity to identify issues that should be addressed in this DSEIS, by submitting written comments. The process will also include the lead agency conducting a SEQR public hearing on the completed DSEIS. In addition, there will be a 30-day comment period to receive public comments on the DSEIS, after it

has been accepted by the Lead Agency and made available to the public. These opportunities allow other agencies and the public to provide input to the SEQR and permitting processes. A copy of the approved DSEIS Scope for this project, which incorporates comments received from the public during the scoping process, is included in Appendix A.

The proposed soil borrow project will require the following permits or approvals:

<u>AGENCY</u>	<u>PERMIT</u>	<u>TYPE</u>
NYSDEC	Solid Waste Management Permit Modification	Discretionary
NYSDEC	Stormwater Discharge	General Permit/Registration
Monroe County	DeMapping of a portion of Brew Road	Administrative

Based on their level of involvement, both NYSDEC and Monroe County are involved agencies, pursuant to SEQR.

A flow chart depicting the sequence of the SEQR process has been provided on Figure 1-3.

1.5 Segmentation

NYSDEC's SEQR regulations define segmentation as the division of the environmental review of an action such that various activities or stages are addressed as though they were independent unrelated activities, needing individual determinations of significance. This section analyzes whether, for purposes of review under SEQR, the soil borrow area and any possible future proposal to expand Mill Seat Landfill must be considered separately.

Based upon evaluations in this DSEIS, the County considers the proposed soil borrow project to be separate, and functionally independent from any future project to provide additional solid waste disposal capacity.

The County needs to obtain additional soils for the operation of the existing permitted facility by July 2011. If the proposed soil borrow area is not approved, a different alternative for providing soil must be pursued. Based on the analysis of the soil borrow areas, it is believed that the on-site solution is the alternative that minimizes adverse environmental impacts.

The primary justification for considering the projects separately is that they are in fact, independent, unrelated actions. The soil borrow area is needed to operate the currently permitted landfill and as such the soil borrow project has its own independent purpose and need with no relation to any future landfill expansion. Although the site of the soil borrow area may be considered one of the options for providing additional landfill space when full capacity is reached in 2018, at this point no decision has been made and any assertion that the County will use the soil borrow area for this purpose is speculation. Before a decision on the preferred option for providing additional landfill capacity is made, the County will review the range of alternatives, including: expansion of the existing landfill site; construction of a new facility at a different location; use of facilities outside the County; as well as other options. The process to determine the preferred method for future solid waste disposal must include an exhaustive environmental review before there is any commitment to a specific proposal. This exhaustive environmental review would pose a scheduling issue because the soil required to operate the existing landfill site, under the current permit, would most likely be depleted before the review could be completed.

Thus, the County considers the soil borrow project separate and independent from any potential future solid waste disposal, as each are functionally independent actions that can and should be separately analyzed as independent actions for purposes of SEQR. The County is committed to undertake restoration of the soil borrow area as outlined in this DSEIS. The restoration will occur as soon as possible after excavation occurs to stabilize the areas and replace wildlife habitat.

1.6 Organization of the DSEIS

This DSEIS is organized to allow a reader the option to focus on particular areas of interest, if desired. After a description of the proposed soil borrow project (in Section 2.0), Sections 3.0 and 4.0 provide assessments of the various natural and human resources, respectively. Within each subsection, an individual issue or topic (e.g., air resources, terrestrial and aquatic ecology, noise, or land use) is assessed. The assessment begins with a description of the current environmental setting, followed by a description of potential environmental impacts, and then a discussion of factors or actions that will mitigate (or reduce) the potential impacts. These assessments are based, in some cases, on separate detailed studies, which are included as appendices, and summarized in this DSEIS.

Following these impact assessment sections, unavoidable adverse impacts are identified and discussed in Section 5.0. Section 6.0 contains an evaluation of various alternatives to the proposed action,

including the justification for selecting the proposed action over the alternatives. The next three sections contain required evaluations of potential impacts on growth (Section 7.0), effects on energy use (Section 8.0), and the permanent commitment of resources (Section 9.0). The last section of the DSEIS (Section 10.0) contains a list of references.

2.0 DESCRIPTION OF PROPOSED ACTION

The County is proposing to construct and operate two soil borrow areas, approximately 20 acres and 42 acres in size, which will provide on-site soils for operation of the permitted landfill. This proposal requires a modification to the existing 6 NYCRR Part 360 SWMF Permit from NYSDEC. The approximate limits of the proposed 62-acre soil borrow project are shown on Figures 2-1 and 2-2.

2.1 Project Purpose and Need

Soil for operation of the landfill is presently obtained from existing borrow areas and stockpiles located at the Mill Seat Facility, but there is not a sufficient volume of soil available to meet ongoing operations through closure of the facility as currently permitted. The estimated shortfall (quantities needed in excess of quantities available) is approximately 1,144,000 cubic yards (see detailed assessment in Appendix B). The additional soil will be used to meet daily cover requirements and for other uses associated with the operation of the existing landfill.

2.2 Location and Current Land Use

The Mill Seat Facility is located in the Town of Riga, Monroe County, New York. The existing landfill is approximately 1 mile south of the Village of Bergen. Site access is from Interstate Route 490, then east a short distance on NYS Route 33A to Brew Road. After following Brew Road south for approximately 3,000 feet, the entrance to the Mill Seat Facility (located on the east side of Interstate Route 490) is reached (see Figure 1-1). Internal roadways have been developed on-site to provide access to various parts of the facility.

The presently permitted landfill footprint area occupies approximately 95 acres of land, within contiguous parcels of land totaling more than 615 acres owned by Monroe County. Ancillary facilities (roads, buildings, existing borrow areas, stormwater ponds, etc.) occupy approximately 80 acres. The proposed soil borrow project and related facilities (such as roads, berms, and stormwater control facilities) will affect approximately 62 acres (see Figures 2-1 and 2-2).

The proposed 62-acre soil borrow project area (including the areas of the two proposed soil borrow areas, future stormwater management facilities, and new access roads) is presently comprised primarily

of open fields (either planted with crops or overgrown with grass and other plants), existing soil stockpiles, and forested land. An approximate breakdown of the affected acreage is provided below.

<u>Current Land Use in</u> <u>New Affected Area</u>	<u>Acreage</u>	<u>Percentage</u>
Forested Land	7	11 %
Open Fields	27	44 %
Agricultural Land	21	34 %
<u>Soil Stockpiles</u>	<u>7</u>	<u>11 %</u>
Totals	62	100 %

Figure 1-2 shows the approximate extent of forested and open areas in the proposed soil borrow project area.

2.3 Description of Borrow Area Development

Excavation in the project area will consist of removing a portion of the till deposit. In general, 10 to 15 feet of till will remain in each area to provide separation to bedrock and minimize the potential to affect groundwater in the upper bedrock zone. Additionally, each of the soil borrow project areas contain small deposits of sand and gravel located within the larger deposit of till, portions of this material will also be removed to create the proposed reclamation grades.

2.3.1 Borrow Sequence and Method

The soil borrow project consists of an East Area and West Area. The West Area is approximately 20 acres, and is proposed to be excavated from east to west between El. 665 feet and El. 674 feet. The East Area is approximately 41.6 acres, and is proposed to be excavated from east to west between El. 651 feet and El. 662 feet. WMNY is planning to operate the project in two phases; the West Area will be excavated first then the East Area.

Excavation is proposed to begin in the lowest portion of each area by creating a sedimentation basin that complies with the New York State Standards for Erosion and Sediment Control. These basins will be constructed with outlet devices and will be vegetated prior to continuing the soil borrow area excavation. The West Area sedimentation basin should be developed approximately three months prior

to beginning the soil borrow area operation. The East Area sedimentation basin will be developed one year prior to completion of borrow activities in the West Area. This will allow the basin to be well vegetated before borrow activities begin. Each area will then be excavated following the proposed base grades. Excavations will be developed and maintained so that runoff from disturbed areas flows through drainage swales and silt traps into the constructed basins. Upon completion, each area of the project is proposed to contain permanent basins and gentle to steep sloping upland areas. The borrow areas will be developed over the period from 2011 through approximately 2018, when the remaining permitted air space will have been exhausted. More detailed information on the operation of the soil borrow areas, as well as drawings showing final grades and details of the sedimentation basins, can be found in the "Borrow Area Use Plan" which will be referred to herein as the BAUP and is included as Appendix G of this DSEIS.

2.3.2 Surface Water and Silt Control

Both the West and East Areas are proposed to contain sedimentation basins consisting of a forebay and permanent pool. These sedimentation basins are designed to remove sediment from water that collects as the remaining portion of the soil borrow area is developed. Surface runoff will flow into the forebay and then into the permanent pool for eventual discharge into the NYSDEC regulated wetlands. Accumulated sediments will be removed when 50 percent of the forebay storage capacity is filled. Temporary erosion and sediment control structures will be placed between the excavation areas and the adjacent wetlands. More detailed information on surface water and silt control can be found in the BAUP.

2.4 Soil Transport and Storage

2.4.1 Soil Transport

Haulageways are proposed for employee access, equipment access, and for transporting soil material from the soil borrow areas to the landfill. The haulageways will be graded, stabilized, and maintained as necessary to provide safe, efficient operations and to minimize erosion and off-site sedimentation. Since the soil borrow areas are immediately adjacent to the landfill, use of public roads for transporting soil will not be required.

2.4.2 Storage of Materials and Disposal of Wastes

Topsoil from the project will be stockpiled at the facility. Temporary erosion and sediment controls will be placed around the topsoil pile. The topsoil pile will be seeded as described in the BAUP. Brush will be stored temporarily within each borrow area. Prior to accessing the material beneath the pile, the brush will be chipped for placement on temporary roads in the project area, or used in operation of the existing landfill.

Wastes generated during excavation operations or during maintenance of equipment will be collected and disposed of appropriately each workday.

2.5 Reclamation

The land use objective for the soil borrow project area will be two permanent ponds and upland meadows. The final base grades and pond areas are shown on Figure 2-2.

2.5.1 Disposition of Materials

Soils borrowed from the project area will be used for the currently permitted landfill operation. Topsoil will be replaced to a depth of 4 to 6 inches on all areas of the excavation. Prior to topsoil placement, all areas will be scarified to promote percolation of precipitation.

Oversized material, if encountered, will be buried to a depth no less than 2 feet. Some boulders may be placed on the floors of the permanent pools to enhance habitat.

Any brush cleared from the soil borrow areas will be chipped and used during reclamation or in the operation of the landfill. After completion of borrow activities, the project area will contain no permanent equipment or refuse.

Spoil and unused material, primarily large cobbles, will be placed against the soil borrow area face or will be used to create irregular topography during reclamation. Spoil piles will not remain on the site after soil borrow operations are completed.

2.5.2 Haulageways & Access Locations

The haulageways will remain for site access to the newly formed ponds. Gravel will be placed on the access road surfaces to aid in erosion control and provide a stable surface.

2.5.3 Drainage and Grading

The side slopes in each borrow area will be graded to a maximum slope of 3 horizontal on 1 vertical.

Two permanent ponds will be created as a result of operations within each area of the project. Drainage patterns outside the footprint of the project will not be altered and the floor in each area will be graded to drain into the created ponds. The West Area pond will discharge into NYSDEC Wetland RG-6 and the East Area will discharge into NYSDEC Wetland RG-7.

Discharge from both ponds will be through surface spillways. The spillways will be graded and stabilized.

2.5.4 Re-vegetation

Topsoil will be placed on the reclaimed ground surface and slopes above the basin level, as shown on Figure 2-2. The topsoil will be seeded using the following mixture.

Birdsfoot Trefoil	25 lbs/acre
Common white clover	25 lbs/acre
Tall fescue	100 lbs/acre
Perennial Ryegrass	50 lbs/acre

Re-vegetation will restore the shores of the basins to a natural state. Woody species plantings will be made in the meadow portion of the soil borrow area and will include some species that would occur naturally in unplanted farm fields. Species such as Aspen, Pine, Hawthorn, and Wild Pear will be planted in arbitrary locations, in clumps, and in rows. Natural succession of vegetation will follow.

Animal species will not be introduced to the site, however a natural progression of animal habitation

will occur due to the plant selections, the hydrogeology, the terrain/topography, and the proximity of the site to NYSDEC jurisdictional Wetlands RG-5, RG-6 and RG-7.

3.0 NATURAL RESOURCES ASSESSMENT

3.1 Geology/Soils

A “Hydrogeologic Report” (Attachment D of the BAUP, which is included as Appendix G of this DSEIS) has been prepared by AMEC Geomatrix, Inc. (AMEC), which provides the information on the soils and bedrock in the soil borrow areas. In addition, the BAUP provides information on impacts on soil resources and mitigation measures. The following sections summarize the assessment of geologic and soils resources contained in these reports.

3.1.1 Environmental Setting - Geology/Soils

Soils at the project occur as a result of glacial deposition and deformation beneath a Wisconsinan Age ice sheet. The soils consist of a topsoil layer overlying a till deposit that lies over bedrock. The East and West Areas are comprised of till soils that vary from about 15 to 35 feet thick. The Hydrogeologic Report documented a deposit of sand and gravel over the till at two locations in the East Area. At these locations, the sand and gravel deposit varies from less than 1 foot to 16 feet thick.

The Hydrogeologic Report describes the till as two units:

- coarse-grained till (upper till unit) – dense clayey silt with little sand containing cobbles and boulders; and
- dense lodgment till (lower till unit) with less cobbles or boulders, but more dense than the upper coarse-grained till unit.

The two till units have similar compositions where the matrix of the till is described as sandy silty clay with little gravel (CL-ML) or as silty clayey sand with little gravel (SC-SM). The primary difference between the two till units is that the coarse-grained till contains more cobbles and boulders. Since the till matrix controls the hydraulic conductivity of the till materials and the matrix of each till unit is comparable, the hydraulic conductivity of the two till units is similar. Till hydraulic conductivity measurements by slug test (7.9×10^{-6} cm/s) and shelby tube (1.6×10^{-7} cm/s) conducted in 2006 indicate the till units have very low hydraulic conductivity. This is consistent with till hydraulic

conductivity estimates provided in landfill investigation reports which report a till geometric mean hydraulic conductivity of 3.3×10^{-6} cm/s (see Attachment D of the BAUP, which is included as Appendix G of this DSEIS).

The sand and gravel deposit, occasionally present at the ground surface, is described as loose to firm, well graded sand with medium to coarse gravel. The hydraulic conductivity of the sand and gravel is comparatively high (1.0×10^{-1} cm/s) based on its high sand content.

Bedrock in the project area is comprised of the upper Silurian Vernon Shale Formation. Descriptions from exploration logs at the site indicate that the formation is a gray to olive brown shale interbedded with limestone. The bedrock exhibits a high degree of weathering near its surface.

3.1.2 Significant Environmental Impacts - Geology/Soils

Approximately 364,000 cubic yards and 798,000 cubic yards of soils will be excavated from the West and East Areas respectively. WMNY is proposing excavation of soils to a depth of up to approximately 30 feet below the existing ground surface elevations, resulting in permanent alteration of local topography. Excavated topsoil will be stripped and stored in stockpiles for future reclamation.

The base grades of the soil borrow areas were developed to leave 10 to 15 feet of till over the underlying bedrock.

3.1.3 Environmental Impacts Mitigation - Geology/Soils

The reclamation plan for the project area will include the creation of two permanent ponds (the former stormwater detention basins), and upland meadows. Soils removed from the project area will be used for permitted landfill operations with limited stockpiling, residue, or refuse. After borrow activities are complete, topsoil will be replaced to a depth of 4 to 6 inches on all areas of the excavation and seeded. Prior to topsoil placement, all areas will be scarified to promote infiltration.

Oversized material, if encountered, will be buried to a depth no less than 2 feet. Some boulders may be placed on the floors of the permanent pools to enhance habitat.

Any brush that remains will be chipped and used during reclamation or in the operation of the landfill. The project area will contain no permanent equipment or refuse.

Spoil and unused material, primarily large cobbles, will be placed against the soil borrow area face or will be used to create irregular topography during reclamation. Spoil piles will not remain on the site after soil borrow operations are terminated.

3.2 Water Resources - Groundwater

3.2.1 Environmental Setting - Groundwater

Groundwater occurs in the overburden soils (till and surficial sand and gravel) and bedrock. The movement of groundwater in these two media is very different and is described below.

Overburden Groundwater: Groundwater occurs within the till. Groundwater in the till is considered a single hydrostratigraphic unit because, as discussed in Section 3.1.1, the Coarse Grained Till and Lodgement Till have equally low hydraulic conductivity and are considered hydraulically equivalent. Groundwater is found at a typical depth of 8 to 10 feet below the ground surface in the West Area and 3 to 15 feet in the East Area. Groundwater occurring in the overburden is referred to as the “Upper Water-Bearing Zone”. Groundwater in the Upper-Water Bearing Zone flows radially from the drumlin area toward the east, west and south. Horizontal hydraulic gradients are low across the West Area and the East Area west of Brew Road. Gradients increase in an eastward direction near Brew Road but remain low (nearly 1%). The hydraulic conductivity of the till is very low (conservatively reported to be less than 1×10^{-5} cm/s) due to its high density and high percentage of silt and clay. Because of the till’s low hydraulic conductivity and comparatively low horizontal gradients, the movement of groundwater in the till (i.e., flow velocity) is very slow.

Groundwater also exists within the surficial sand and gravel deposit. However, because of its relatively high hydraulic conductivity (estimated to be greater than 1×10^{-1} cm/s), groundwater drains quickly from the sand and gravel deposit. Following dissipation of seasonal recharge, the sand and gravel unit is likely to be unsaturated.

Upper Bedrock Groundwater: The predominant groundwater flow zone at the facility is the overburden/bedrock interface (where shale bedrock has decomposed to exhibit some soil-like

properties and where it becomes more competent but is yet highly fractured). Wells installed into this zone contain water throughout the year and exhibit a relatively high hydraulic conductivity compared with that of the overlying till. Although vertical hydraulic gradients are downward between the Upper Water-Bearing Zone and the overburden/bedrock interface, the low hydraulic conductivity of the till restricts the movement of groundwater and its ability to recharge groundwater that flows in the overburden/bedrock interface and upper bedrock. Groundwater recharge to this bedrock zone occurs in areas outside the project area. Additionally, this bedrock zone discharges to wetlands (RG-5 and RG-7) outside the project area where the overburden thins or is nonexistent.

3.2.2 Significant Environmental Impacts - Groundwater

Excavation of till in the West Area is expected to occur, at its deepest location (El. 665 feet), approximately 1 to 2 feet into the Upper Water-Bearing Zone. In the East Area, excavation of till on the west side of the area (El. 662 feet) will occur approximately 4 feet into the Upper Water-Bearing Zone. As observed in test pits excavated in till material, groundwater seepage occurred at rates similar to the rate of evaporation. During excavation of soil borrow material, groundwater may be present in isolated areas, especially in locations which contain surficial deposits of sand and gravel. In general, this groundwater will be intermittent and will not generate large flows, all of which can be directed to the sedimentation basins. Following complete excavation of the soil borrow areas, the depth to the Upper Water-Bearing Zone is expected to be lowered by approximately 1 to 2 feet in the West Area and approximately 4 feet in the East Area. The radial groundwater flow pattern in the Upper Water-Bearing Zone that currently exists is expected to remain during and after soil excavation since the central portion of the property (wetland area) will not be excavated and source of recharge to this portion of the project will not be altered. The impact on Wetland RG-6, located between the two areas is discussed in Section 3.6.

As described in Section 3.2.1, predominant groundwater flow at the facility is within the overburden/bedrock interface. Therefore, since the overburden/bedrock interface will remain confined by a 10 to 15-foot thick layer of till and recharge/discharge areas occur outside the project area, groundwater flow within this zone will not be affected by the proposed soil borrow project operations. Within the limits of both the West and East Areas, vertical hydraulic gradients are downward. Therefore, a mechanism does not exist for groundwater flowing in the overburden/bedrock interface to flow upward through till into the areas being excavated for borrow soil as long as the excavation bottom is above the elevation of the potentiometric surface of overburden/bedrock interface.

Existing data shows that heads in the overburden/bedrock interface in the areas of the borrow areas are lower than proposed soil borrow area excavation depths.

The introduction of potential contaminants to the site could have a negative impact on the quality of both groundwater and surface water. The most likely source of contamination at a borrow area of this type would be the inadvertent release of petroleum products (fuels or lubricants) during the operation or maintenance of excavation equipment and trucks.

3.2.3 Environmental Impacts Mitigation - Groundwater

As described above, the soil excavation will occur above the elevation of the predominant groundwater zone (upper bedrock). In addition, the low hydraulic conductivity of the till soils in the soil borrow project areas indicate little groundwater recharge occurs in these areas. For these reasons, the physical alterations proposed will not significantly impact groundwater. In addition, groundwater elevation monitoring of existing wells currently in the routine monitoring program for the landfill (i.e., M-7A, M-7B, and M-2A, M-2B) and an existing piezometer (PZ-2 {2006}) will be conducted three times annually to assess potential changes to groundwater conditions in the project area.

The potential for petroleum releases to impact groundwater will be mitigated by restricting maintenance and fueling operations to shop areas or restricted outdoor areas where spills can be quickly contained. Spill kits will be available in the shop area, and refueling areas, to facilitate clean up of spilled petroleum products before they can reach either groundwater or surface water. Federal oil pollution prevention regulations that apply to this project are contained in 40 CFR Parts 110 and 112; applicable New York regulations can be found in 6 NYCRR Parts 612, 613, and 614. As required by the federal regulations, a Spill Prevention Control and Countermeasure (SPCC) Plan has been developed for the Mill Seat Facility.

3.3 Water Resources – Surface Water

3.3.1 Environmental Setting - Surface Water

Overland flow is the dominant drainage mechanism within the project area. Surface water atop the low permeability till formation flows away from the project area to adjacent wetlands as discussed

above and to Hotel Creek. Hotel Creek is a tributary of Black Creek, which is a tributary of the Genesee River.

Surface water in the West Area flows away from the drumlin crest toward Wetlands RG-5 and RG-6 as overland flow. Channeled flow was not identified within the West Area.

Within the East Area, overland flow concentrates into a topographic low area between the two elongated features, and then flows through a culvert beneath Brew Road. The culvert discharges to the east side of Brew Road where flows become channeled to Wetland RG-7. A minor amount of overland flow from the west side of Brew Road is concentrated and discharges through a second culvert beneath Brew Road, ultimately to Wetland RG-7. Additional overland flow on the east side of Brew Road flows to Wetland RG-7.

Stormwater analyses for the existing conditions have been completed for each area of the project and are included in Attachment E of the BAUP, which is included as Appendix G of this DSEIS. The East Area currently drains to Wetlands RG-5, RG-6 and RG-7 and the West Area currently drains to Wetlands RG-5 and RG-6.

3.3.2 Significant Environmental Impacts - Surface Water

Existing surface water runoff patterns will be altered by the soil borrow operations. Both the West and East Areas will contain sedimentation basins consisting of a forebay and permanent pool. These proposed sedimentation basins are designed to remove sediment from water that collects as the remaining portion of the soil borrow area is developed. Surface runoff from excavation areas will be directed into the forebay and then into the permanent pool for eventual discharge into the NYSDEC regulated wetlands.

The stormwater analyses presented in Attachment E of the BAUP, which is included as Appendix G of this DSEIS includes the post development analyses for each borrow area. The East Area will drain to Wetland RG-7 and the West Area will drain to Wetland RG-6. Hydrographs for each borrow area (included in Attachment E of the BAUP, which is Appendix G of this DSEIS) indicate that the post development peak flows to the wetlands will be less than the predevelopment peak flows.

Additionally, a review of the drainage areas contributing flow to Wetland RG-6 indicates that prior to the development of the existing landfill, the surface water drainage area was approximately 90 acres. The permit documents for the existing landfill show that the drainage area increases to 92.9 acres after full development. After borrow operations are complete, the drainage area to Wetland RG-6 will increase slightly to 101.3 acres. Because Wetland RG-6 is recharged almost exclusively from surface water, maintaining (or increasing) the surface area draining to the wetland will maintain or increase the quantity of water sustaining the wetland.

The development of the project will decrease the surface water runoff area to Wetland RG-5 by approximately 16.8 acres and will increase the surface water runoff area to Wetland RG-7 by approximately 8.4 acres. Because these wetlands have flow contributions from groundwater discharge through the upper bedrock zone, and they receive surface water from large areas, the quantity and quality of the recharge to Wetlands RG-5 and RG-7 is not expected to be significantly affected.

Surface water runoff from each borrow area will be contained within the excavation areas until they flow to and pass through the sedimentation basins. Temporary erosion and sediment control structures will be placed between the excavation areas and the adjacent wetlands.

3.3.3 Environmental Impacts Mitigation - Surface Water

During the operation of the project area, erosion and sediment control techniques and procedures are proposed to be employed to reduce and control erosion and the transport of sediments from excavated areas or stockpiles. Sediment control devices, such as sedimentation ponds, and silt fences, will be installed to control sediment transport. Temporary vegetation will be maintained by seeding disturbed areas to reduce exposed soil areas that would be subject to erosion. Proposed erosion prevention and sedimentation control measures are described in more detail in the BAUP and the "Stormwater Pollution Prevention Plan" (SWPPP). Many of the techniques and procedures for erosion sedimentation control outlined in these documents are taken from the "New York Guidelines For Urban Erosion & Sediment Control."

The potential for petroleum releases to impact surface water will be mitigated by restricting maintenance and fueling operations to shop areas or restricted outdoor areas where spills can be quickly contained. Spill kits will be available in the shop area, and refueling areas, to facilitate clean up of

spilled petroleum products before they can reach either groundwater or surface water. Federal oil pollution prevention regulations that apply to this project are contained in 40 CFR Parts 110 and 112; applicable New York regulations can be found in 6 NYCRR Parts 612, 613, and 614. As required by the federal regulations, an SPCC Plan has been developed for the Mill Seat Facility.

Continued monitoring of the adjacent wetlands will occur, as described in Attachment F of the BAUP, which is Appendix G of this DSEIS.

3.4 Air Resources

3.4.1 Environmental Setting – Air Resources

The general climatic data that follows was obtained from the National Climatic Data Center (part of the National Oceanic and Atmospheric Administration) for the weather station at Rochester, New York. Prevailing winds in the project area comes from the west-southwest and average approximately 10 mph. Precipitation averages approximately 31 inches per year, with monthly averages ranging from approximately 2.3 inches in January to 3.2 inches per month in August. The maximum 25-year, 24-hour rainfall for the area is approximately 4.2 inches. Air temperatures range from a monthly average of 24 degrees Fahrenheit (degrees F) in January to 71 degrees F in July, with an annual average of approximately 48 degrees F.

Air quality in the area around the site is typical of rural areas in Monroe County. Smoke from wood stoves, odors from manure fertilization and dust from agricultural plowing activities cause occasional degradation to the overall air quality, although, in general, the air quality is good. The Village of Bergen is the closest area where there is a concentration of sensitive receptors to the pollutants and/or air quality deterioration that might be generated by the project areas. This area is located about one mile north of the landfill site, and about 1-1/2 miles from the soil borrow areas. There are, however, some residents located closer to the project areas. Two residences are located approximately 1,700 feet east of the East area, on O'Brien Road. Several residences are located approximately 1,500 to 1,800 feet south of the project areas, on Bovee Road, and several more residences are located approximately 1,200 to 1,800 feet southeast of the East area, on Edgewood Lane.

Air quality in the region meets the National Ambient Air Quality Standards (NAAQS) for all regulated pollutants. However, since New York is located within the ozone transport region (OTR), as defined

by the USEPA, volatile organic compounds (VOCs) and nitrogen oxides (NO_x) are considered to be non-attainment parameters. This means that, although the project area is in compliance with air standards, air quality problems in generally downwind areas result in more stringent standards being applied.

3.4.2 Significant Environmental Impacts - Air Resources

The major potential impacts on air resources due to the soil borrow project is dust generated by excavation activities and soil transport trucks. The local climate, including prevailing wind directions, rainfall, snowfall and sunshine, will not be affected by the project.

- Impacts of Dust

Excavation and soil transport activities, which have the potential to create dust, would not be materially different from those currently occurring at the facility, although excavation activities would occur closer to some residences to the south and east of the project areas. The potential issues associated with dust will occur from the soil materials becoming too dry. Dust may also be generated by vehicles moving along unpaved on-site roadways, while moving soil from the project areas to the landfill site.

- Impacts of Fine Particulate Matter (PM_{2.5})

In December 2003, NYSDEC adopted Policy CP-33, entitled “Assessing and Mitigating Impacts of Fine Particulate Matter Emissions”. This policy was developed to address significant emissions levels (defined as being greater than 15 TPY) of particulate matter with an aerodynamic diameter of 2.5 microns or less (PM_{2.5}).

Policy CP-33 states that, “Certain projects regulated by the Department of Environmental Conservation have the potential to emit fine particulate matter, or PM_{2.5}, in quantities that could have a potential for significant adverse health and/or environmental impacts. The methodology set forth in this policy is consistent with the State Environmental Quality Review Act, represents a correct interpretation of its mandates, and provides guidance on the project-specific assessment of fine particulate matter impacts and details when mitigation of such impacts may be necessary.”

Particulate matter (PM) is a generic term for a broad class of chemically and physically diverse

substances that exist as discrete particles (liquid droplets or solids) over a wide range of sizes. For regulatory purposes, particulate matter has been classified in terms of the particle's aerodynamic diameter. PM_{2.5} is particulate matter with an aerodynamic diameter of 2.5 microns or less.

As described above in the discussion of "dust" impacts, excavation and soil transport activities, which have the potential to create fine particulate matter, would not be materially different from those currently occurring at the facility. The potential issues associated with fine particulate matter will occur from the soil materials becoming too dry. Since emissions of fine particulate material will not increase significantly as a result of the proposed project, no additional action is required to comply with this policy.

- Impacts from Vehicle Emissions

Another potential impact on air resources will be that of vehicle emissions created by trucks hauling soil from the project areas to the landfill. Considering the proximity of Interstate 490, a major expressway, and the relatively moderate amount of truck traffic associated with project activities (40 to 60 truck trips per day) in comparison, this impact will be minimal.

Mitigation measures proposed in Section 3.4.3 will ensure that air emissions from the Mill Seat Facility are properly controlled.

3.4.3 Environmental Impacts Mitigation - Air Resources

Control of dust generation associated with project operations will be accomplished by application of water to disturbed soils and on-site roadways during dry periods, and prompt seeding of completed soil structures. The potential dust dispersal issues, should they occur, would impact that area downwind of the project to the greatest extent. This area, based upon prevailing wind conditions, lies to the east-northeast of the project. No residences exist within 1,700 feet to the east-northeast of the project areas. Water used for dust control will come from an existing on-site well.

3.5 Terrestrial and Aquatic Ecology

An “Ecological Report for the Proposed Soil Borrow Project” (Ecological Report), which is included in Appendix C, has been prepared by Barton & Loguidice, P.C. (B&L), which evaluates the environmental setting, and potential impacts, in the area to be impacted by the project. The following sections summarize the assessments contained in this report.

3.5.1 Environmental Setting - Borrow Areas

Detailed vegetative cover type mapping was compiled based on site observations and notes from multiple visits to the project area and surrounding lands. The current land uses and cover types located within the project area footprints were reviewed and quantified. The cover type categories that were used to map the project areas and their surrounding features include delineated wetland, active agricultural fields, deciduous forest, permitted disturbed areas (landfill operations), meadow (abandoned agricultural fields), paved roadway, and shrubland. Figure 4 in the Ecological Report depicts the extent of these mapped cover types. Further details about each category are provided in the Ecological Study.

The acreage of all cover types that would be disturbed by soil excavation in the East and West Areas was calculated in order to more appropriately analyze potential habitat and ecological impacts. These calculated acreages are included in Table 2 of the Ecological Report and are also summarized below.

Cover Type Designation	West Borrow Area (acres)	East Borrow Area (acres)
Delineated Wetland		0.76
Active Agricultural Fields		21.49
Disturbed Areas	12.77	0.57
Paved Roadway		0.82
Meadow	6.26	12.62
Shrubland	0.98	5.34

Wildlife species observed during site visits are consistent with the designations and quantities of cover types and vegetative diversity found on-site and are consistent with species commonly observed within western New York State and the Mid-Atlantic Region of the U.S. During time spent on-site, direct

wildlife observations or observations of wildlife signs were recorded. Species utilizing the project area include American goldfinch, American crow, American tree sparrow, European starling, song sparrow, American robin, downy woodpecker, wood duck, killdeer, redbellied vireo, Canada goose, turkey vulture, gray catbird, red-tailed hawk, red-winged blackbird, mallard duck, white-tailed deer, gray squirrel, and red squirrel. A more complete assessment of the flora and fauna utilizing the proposed borrow areas is provided in the Ecological Report.

3.5.2 Significant Environmental Impacts - Borrow Areas

With respect to terrestrial ecology in the proposed borrow areas, approximately 62 acres of land will be impacted by the proposed soil borrow project. All current use of these areas for native or cultivated plants and animals will be disturbed during the active phase of the borrow project. It should be noted that none of the impacted cover types are uncommon for the area, and there were no rare or endangered species observed in the impacted areas.

3.5.3 Environmental Impacts Mitigation - Borrow Areas

In the East Area, the temporary loss of approximately 42 acres of potentially functional terrestrial habitat will be mitigated by the eventual restoration of the project area to grassland habitat. In the West Area, the temporary loss of approximately 20 acres of potentially functional terrestrial habitat (including more than 12 acres of presently disturbed area) will also be mitigated by the eventual restoration of the soil borrow area to grassland habitat.

The grassland habitat proposed for post project reclamation is important for birds and small mammals. Therefore, the soil borrow project will eventually contribute to diversity in local wildlife habitat areas.

It should also be noted that impacts would not occur to the full area all at once. Borrow areas will be developed sequentially (the West Area will be developed first) and reclamation activities will be completed in the West Area as development of the East Area begins. Within each area, as final grades are reached, topsoil will be replaced and the finished sub-areas will be seeded.

The “Habitat Management Plan” (see Section 3.7) will be affected by this soil borrow project and will be modified to replace the meadow area and nesting boxes. Figure 3.1 shows the current management areas and Figure 3-2 shows the proposed revisions to the management areas. In addition, the revised

plan will include detailed habitat management objectives and actions for the post-reclamation borrow areas.

3.5.4 Hotel Creek

3.5.4.1 Environmental Setting

Hotel Creek is a small stream flowing from west to east, located south of the proposed soil borrow project. Hotel Creek has been established as a Critical Environmental Area (CEA) by the Town of Riga, which means that it is entitled to certain protection under SEQR regulations. To be designated a CEA, the area must have one or more of the following characteristics: It is a benefit or threat to human health. It is a natural setting. It has agricultural, social, cultural, historic, archaeological, recreational, or educational values. It has an inherent ecological, geological or hydrological sensitivity to change that may be adversely affected by any change.

Due to the sensitivity of Hotel Creek to change, inferred by its designation as a CEA, water quality monitoring has been required as part of the Environmental Monitoring of the Mill Seat Facility. Selected data from the monitoring of Hotel Creek, including dissolved oxygen, pH, temperature, turbidity, biological oxygen demand, chemical oxygen demand and total dissolved solids, are reproduced in tabular and graphical form in Appendix D. At upstream locations (S-1 and S-2) some erratic data has been recorded, possibly due to low flow conditions during some of the monitoring events. (Sampling locations are shown on the "Sample Location Map" labeled Figure 2 in Appendix D.) At downstream locations (S-5 and S-8), where impacts due to landfill activities might be detected, the data do not show strong trends over the monitoring period from 1993 to 2009, based on the low slopes of the linear regression lines plotted on the graphs. For example, focusing on Sampling Location S-5 (the first sampling location completely downstream from potential landfill impacts), over the 1993 to 2009 time period, the April linear regression trend line (for water temperature) increases by about one degree Celsius (C), from about 8 to 9 degrees C. At the same location, and over the same time period, the July linear regression trend line (for water temperature) is unchanged at about 20 degrees C, and the October linear regression trend line shows a very slight drop, but stays in the tight range between 11 and 12 degrees C. Examining individual data points on these plots in Appendix D, indicates a large amount of variability in temperature data, with, for

example, a range from 6 degrees C to 14.7 degrees C in the October data set. Based on the available data, it is difficult to identify any significant trends.

Although slight positive slopes (indicating rising temperatures) in some of the linear regression lines are evident (as well as some slight negative slopes), they occur at both upstream and downstream locations and are, as mentioned, minor. Based on the data collected over the past 16 years, it doesn't appear that landfill activities have impacted the water quality in Hotel Creek.

3.5.4.2 Significant Environmental Impacts

Existing surface water runoff patterns will be altered by the soil borrow operations. Both the West and East Areas will contain sedimentation basins consisting of a forebay and permanent pool. These sedimentation basins are designed to remove sediment from water that collects as the remaining portion of the soil borrow area is developed. Surface runoff from excavation areas will be directed into the forebay and then into the permanent pool for eventual discharge into the NYSDEC regulated wetlands. Since the wetland areas form an important part of the Hotel Creek watershed, features (described in Section 3.3.2) of the stormwater management system which protect the quality and quantity of water flowing from the borrow areas to the wetlands, will in turn be protective of the water quality and quantity in Hotel Creek.

3.5.4.3 Environmental Impact Mitigation

Impacts to the section of Hotel Creek in the vicinity of the project areas will not be significant, and therefore need not be mitigated. Aquatic evaluations indicated that Hotel Creek has not been significantly impacted during approximately 17 years of landfill operation. The project will incorporate stormwater management features, which will protect both the water quality and water quantity, so that adjacent wetlands and streams will not be adversely impacted. Continued implementation of operational practices to prevent excessive release of sediment and other contaminants to the stream will mitigate potential impacts. In addition, surface water monitoring of Hotel Creek (and a tributary) will continue, as specified in the existing "Environmental Monitoring Plan" for the Mill Seat Landfill.

3.6 Wetlands Hydrology and Ecology

3.6.1 Environmental Setting - Wetlands Hydrology and Ecology

B&L delineated wetlands within and adjacent to the project (see Figures 1-2 and 2-1) during fall 2008 and spring 2009. As indicated on the figures, three of these delineated wetlands are associated with previously mapped NYSDEC freshwater wetlands. Wetland RG-5 lies to the west, Wetland RG-7 to the east, and Wetland RG-6 lies between the Proposed East and West Areas. These three delineated wetlands are also under federal jurisdiction by the United States Army Corps of Engineers (USACOE). In addition, a fourth wetland was delineated between Wetland RG-7 and Brew Road. Field observations indicate that this wetland has no defined inlet or outlet, signifying that this wetland is isolated. The USACOE is currently reviewing this determination; however, if this wetland is determined to be isolated, it would no longer be included under federal jurisdiction. The NYSDEC did not exert jurisdiction over the linear drainage that connects Wetland RG-6 south to Wetland RG-5. This drainage remains under federal protection as a Water of the U.S. The 100-foot buffer areas surrounding the delineated limits of Wetlands RG-5, RG-6, and RG-7 are also protected by the NYSDEC.

Surface water is present in Wetland RG-6 and in the drainage swale that flows south to Hotel Creek. Surface water is also present in Wetland RG-5 and in Wetland RG-7. The wetlands serve as temporal recharge/discharge areas of overburden and, in the case of Wetlands RG-5 and RG-7, upper bedrock groundwater. Wetland RG-6 is uniquely different from RG-5 and RG-7 in that RG-6 is comparatively small and isolated, lies in an elevated area of thicker till deposits, and is recharged primarily by precipitation and runoff.

AMEC evaluated groundwater/surface water interaction specifically in the area of Wetland RG-6 based on its proximity to the proposed West and East soil borrow areas. AMEC's investigation indicated that the water level in the wetland is held relatively constant by the elevation of the wetland's outlet (the drainage swale that flows south across the property to Hotel Creek). Precipitation that falls on Wetland RG-6 and precipitation that falls on the land surface near the wetland and on the south side of the capped landfill will flow overland (runoff) and recharges surface water in the wetland. Although groundwater temporally recharges the wetland, the volume of groundwater recharge is very small. This is due to the low hydraulic conductivity of the till soil and the small hydraulic gradients in the area of the wetland that effectively constrain the volume of

groundwater that discharges to the wetland. AMEC provided an analytical estimate of recharge to Wetland RG-6 from precipitation/runoff and groundwater recharge. The calculation reported that the estimated wetland recharge via precipitation and overland flow is 9,900 cubic feet per day (ft³/day). During hydraulic conditions that favor groundwater discharge to the wetland, the volume of groundwater discharging to the wetland is conservatively estimated to be 20 ft³/day. Therefore, it was determined that precipitation and runoff is the dominant mechanism of recharge to Wetland RG-6, with groundwater discharge accounting for less than 0.5% of the total flow to the wetland.

As discussed in Section 3.2.2, the excavation of the soil borrow areas are expected to result in a one to four foot lowering of the water table in the area of Wetland RG-6. However, the loss of groundwater recharge to Wetland RG-6 is inconsequential since less than 0.5% of the wetland recharge is from groundwater. The low hydraulic conductivity of the till (geometric mean is 3.3×10^{-6} cm/s) will minimize the downward movement of surface water in the wetland and the hydraulic affects from excavation west and east of Wetland RG-6 is expected to be negligible.

Monitoring of Wetlands RG-5, RG-6, and RG-7 was started in spring 2010 in order to record the baseline condition of these wetlands from a functions and values standpoint and a site characteristics perspective, prior to the start of soil excavation in the borrow areas. These monitoring activities include ongoing photographic surveys, amphibian surveys, and vegetative analyses at specified points within each wetland area. In addition, groundwater elevation monitoring of existing wells currently in the routine monitoring program for the landfill (i.e., M-7A, M-7B, and M-2A, M-2B) and an existing piezometer (PZ-2 {2006}) will be conducted three times annually to assess potential changes to groundwater conditions in the area of the wetland. Monitoring is proposed for the life of the borrow areas. Significant impacts to the delineated wetland resources on-site, aside from the isolated wetlands, are not anticipated, and impacts are even less likely since the construction of the borrow areas will occur sequentially.

3.6.2 Significant Environmental Impacts - Wetlands Hydrology and Ecology

The design and operational features of the project areas, including stormwater management structures and practices, have been developed specifically to avoid impacts on the NYSDEC jurisdictional Wetlands RG-5, RG-6 and RG-7. Excavation within each area of the project, will not remove any portion of the NYSDEC jurisdictional wetlands or the associated buffers. Additionally, the number of acres contributing runoff to the three wetlands will not be significantly changed by the

soil borrow area project.

Section 3.3 of this DSEIS provides details on the management of surface water, as it related to protection of wetlands.

3.6.3 Environmental Impacts Mitigation - Wetlands Hydrology and Ecology

Since no significant impacts will occur to the jurisdictional wetlands or buffer zones, wetland mitigation is not required.

Since the wetlands are of specific concern, B&L has completed a Wetlands Baseline Monitoring Report (see Attachment F of the BAUP, which is included as Appendix G of this DSEIS). This report establishes the current conditions and functions for Wetland RG-6 and portions of Wetlands RG-5 and RG-7. The report presents a method to routinely monitor the wetlands during borrow area development and reclamation. Specifically, surface water levels will be monitored and wildlife and vegetation observations will be recorded along with photographic documentation.

3.7 Wildlife Habitat Management Area

3.7.1 Environmental Setting - Habitat Management Area

An original Wildlife Habitat Management Plan was developed in 1992, at the time the landfill was initially developed (see Figure 3-1). This plan included a system of habitat protection and enhancement practices, which were implemented and have been maintained. These practices include:

- Maintaining and improving as much existing wildlife habitat as possible outside the area of landfill development. The wetland areas on site are passively managed, protected by fencing beyond the wetland and remain essentially undisturbed since the operation of the landfill.
- Installation of nesting boxes for cavity nesting birds at selected locations. The target species are: Eastern bluebirds, tree swallows, wood ducks and American kestrels. These species were selected because of their presence on the site and the relatively high potential for improving available nesting habitat by supplementing natural nest cavities with nesting boxes.
- Annual late summer mowing of previous agricultural fields to maintain areas of meadow and arrest natural succession in those areas. The maintenance of meadow habitat preserves

habitat diversity on-site.

- Placement of brush piles along woods/field edges to enhance wildlife cover.
- Conifers were planted to provide stands/screens. Pine and spruce were planted to add habitat diversity since there had been no significant existing conifer stands on the site.
- Limited open water/aquatic beds were developed within existing wetlands to create additional habitat diversity and encourage use by waterfowl.
- Opportunities for public recreation – hiking trails were constructed on the site to provide opportunities for walking, birdwatching, photography and ecological education.

Figure 3-1 illustrates the current features of the Habitat Management Plan, as revised in 2006. This revision occurred as a result of the SEQR process leading up to the issuance of a Part 360 Permit Modification for the Mill Seat Facility. Features of the Habitat Management Plan that are currently implemented in the areas of the proposed soil borrow project include a designated area of controlled mowing in the west area, and bird and bat nesting boxes in both the East and West Areas.

3.7.2 Significant Environmental Impacts - Habitat Management Area

Development of the borrow project would result in the elimination of the meadow habitat (maintained with periodic mowing) in the West Area, and would require the relocation of bird and bat nesting boxes in both the East and West Areas.

3.7.3 Environmental Impacts Mitigation - Habitat Management Area

An area near the Hotel Creek corridor has been identified as a replacement area for the existing meadow habitat in the West Area, as shown on Figure 3-2. This area would be maintained with periodic mowing, as is the existing meadow area. Replacement locations for the bird and bat nesting boxes will also be relocated along the tree lines of the new meadow areas as shown on Figure 3-2. The Habitat Management Plan will be revised to reflect these changes, as well as post-reclamation habitat management objectives and actions for the borrow areas.

3.8 Endangered, Threatened & Protected Species

No rare, endangered or threatened ecotypes or species (as defined by the New York Natural Heritage Program) were observed on the areas to be impacted by the project (see the Ecological Report in

Appendix C).

4.0 HUMAN RESOURCES ASSESSMENTS

4.1 Archeological and Historic Resources

4.1.1 Environmental Setting – Archeological and Historic Resources

The Town of Riga is a rural community with a 2000 census population of 5,437, and an area of 35.3 square miles. The largest population center is the Village of Churchville, in the northwestern part of the town, with a 2000 census population of 1,887.

A Phase 1A/B level Cultural Resource Investigation (Appendix E) was performed for the project by Heritage Preservation and Interpretation, Inc. The Phase 1A research consisted of an examination of site file data, local histories, historic maps and atlases and a review of the previous archaeological survey report prepared for the original landfill construction. Stage 1B investigations included examination of the project areas through walkover surface inspection (after plowing) and subsurface shovel testing. Although there were no significant historical, architectural or cultural sites identified, the project areas do contain ten archaeological sites, consisting of seven prehistoric sites and three historic sites. The prehistoric sites consisted of items such as chert flakes and fragments, and the historic sites were associated with an abandoned farmstead and two abandoned residences.

None of the sites identified were deemed to have significant cultural value.

4.1.2 Significant Environmental Impacts – Archeological and Historic Resources

The review of the project site by Heritage Preservation and Interpretation, Inc., and the Office of Parks, Recreation and Historic Preservation (OPRHP) revealed no known significant prehistoric or historic cultural remains in the project areas, and there was no indication that any existing historic site will be impacted by the project. The letter from OPRHP (included in Appendix E) specifically states that there will be “No Effect” upon cultural resources in or eligible for inclusion in the National Register of Historic Places.

4.1.3 Environmental Impacts Mitigation – Archeological and Historic Resources

Since no significant historic or archaeological resources have been identified in the project areas, there are no significant impacts to be mitigated.

4.2 Transportation/Traffic

4.2.1 Environmental Setting - Transportation/Traffic

Transportation routes in the immediate vicinity of the facility are shown on Figures 1-1 and 1-2. The facility is approximately 1 mile south of the Village of Bergen. Site access is from Interstate Route 490, then east a short distance on NYS Route 33A to Brew Road. After following Brew Road south for approximately 3,000 feet, the entrance to the Mill Seat Facility (located on the east side of Interstate Route 490) is reached (see Figure 1-1). The northern portion of Brew Road now dead-ends at the facility. Internal roadways have been developed on-site to provide access to various parts of the facility.

Traffic flow along Interstate 490 is occasionally heavy, although this is an expressway designed to handle high levels of traffic. Sight distances, road grades and pavement construction are all adequate for handling traffic by heavy trucks.

NYS Route 33A and Brew Road (a county road) are well maintained, and turning lanes on NYS Route 33A, at the Brew Road intersection, prevent facility traffic from both the east and west from causing back-ups.

Traffic counts taken on the portion of Brew Road south of the landfill by the County, in 2001, 2005 and 2009, indicated daily total traffic levels of 34, 23, and 13 vehicles, respectively. This indicates light and probably decreasing use of the portion of Brew Road that would be directly impacted by the project.

4.2.2 Significant Environmental Impacts - Transportation/Traffic

Traffic conditions on public roads will not be significantly impacted by the project. The project areas are located immediately south of the landfill, and on-site haul roads will be constructed to allow transport of soil to the landfill site without use of public roads. It will be necessary, however, to close a portion of Brew Road, south of the landfill. Therefore, subject to county legislative approval, it is proposed that Brew Road be both partially discontinued and altered as part of the project. The alteration and closure would result in certain traffic presently using Brew Road to access Bovee Road (to the south) via Johnson Road. Considering the small volume of traffic on Brew Road, this change is not expected to have a noticeable effect on Johnson Road traffic.

If the project were not constructed, soils from off-site locations might be utilized, which would result in increased truck traffic on local public roads.

4.2.3 Environmental Impacts Mitigation - Transportation/Traffic

Since no significant traffic impacts will result from the project, there is no need for mitigation.

4.3 Land Use and Zoning

4.3.1 Environmental Setting - Land Use and Zoning

The proposed 62-acre project (including the areas of the two soil borrow areas, future stormwater management facilities, and new access roads) is presently comprised primarily of open fields (either planted with crops or overgrown with grass and other plants), existing soil stockpiles, and forested land. An approximate breakdown of the affected acreage is provided below.

<u>Current Land Use in</u> <u>New Affected Area</u>	<u>Acreage</u>	<u>Percentage</u>
Forested Land	7	11%
Open Fields	27	44 %
Agricultural Land	21	34%
Soil Stockpiles	7	11 %
Totals	62	100%

Figure 1-2 shows the approximate extent of forested and open areas in the proposed soil borrow project area.

The Town of Riga's zoning ordinance classifies the landfill site as "Agricultural/Residential." The County has a degree of immunity from local zoning and land use regulations as provided by statute and case law. Further, the landfill site, as well as the project areas, are also governed by a Host Community Agreement executed by the County and the Town of Riga. The Host Community Agreement does not require that the County obtain the consent of the Town of Riga for the project. The County will collaborate with the Town of Riga and the Mill Seat Landfill Citizens' Advisory Board on the soil borrow project.

4.3.2 Significant Environmental Impacts - Land Use and Zoning

The project areas are presently comprised of open fields, existing soil stockpiles, and forested land. An approximate breakdown of the affected acreage is provided above.

Change in actual land use consists of the loss of open fields, agricultural land, and forested land within the soil borrow areas. Due to the location and size of the project, there should be little direct impact on the local off-site land use, with the exception of the lost agricultural land, which is not in short supply in the region. The "Town of Riga & Village of Churchville 2008 Comprehensive Plan" reported more than 10,000 acres of agricultural land in the Town, and more than 2,600 acres of vacant land. Compared to these numbers, the loss of less than 22 acres of agricultural land is not significant.

After reclamation, the project areas would revert to wildlife habitat.

No zoning changes are required

4.3.3 Environmental Impacts Mitigation - Land Use and Zoning

As previously discussed, there is no zoning impact. Although the Town of Riga's zoning ordinance classifies the landfill site as "Agricultural/Residential" the County is exempt from any restrictions associated with this classification. Change in land use is limited to the loss of approximately 55 acres of open fields and forested land. These areas currently are used as agricultural land and wildlife

habitat, resources which exist in ample supply in this area. Once the project is completed, the areas will be re-vegetated to a state similar to the present open non-agricultural fields or meadows surrounding the project.

4.4 Noise

4.4.1 Noise Fundamentals

The human ear is not equally sensitive to all frequencies of sound and responds differently to different sound levels, which makes it difficult to present the subjective evaluation of a noise by people. Of various single-number measurements, which can be made using a sound level meter, the "A-weighted" or "A-scale" reading in decibels, abbreviated "dBA", corresponds well with subjective responses, including annoyance, speech interference, interference with work and concentration, and judgment of loudness. The ease of measurement, using a sound level meter, has made the A-weighted noise level generally acceptable as a single-number indicator for most community noise measurements.

The A-weighted sound pressure level weights against, or reduces the influence of, noises below 500 Hz (Hertz - cycles per second), and to a lesser extent above 5000 Hz. The attenuation of the low-frequency noise corresponds quite well with the response of the human ear, and therefore allows a good appraisal of the most annoying sounds. Typical A-weighted sound levels for common noise sources are shown in Figure 4-1. In the following sections, two specific A-weighted sound levels will be discussed. Leq is the equivalent steady-state sound level that contains the same acoustic energy as the time varying sound level during a selected time period.

The procedures and criteria to be used in the noise evaluations for the project include those provided in the Regulations for SWMF (6 NYCRR Part 360-1.14 (p)) as well as those found in the NYSDEC Program Policy document entitled, "Assessing and Mitigating Noise Impacts", dated October 2000. The controlling noise criterion for operational noise impacts at the facility property line is specified in 6 NYCRR Part 360-1.14(p) as a 1-hour Leq of 57 dB(A) for rural daytime environments. The controlling noise criteria for operational and construction noise impacts at sensitive receptor locations is specified in the NYSDEC Program Policy as a 1-hour Leq increase of 6 dB(A) triggering the need to perform an impact evaluation, and a 1-hour Leq increase of 10 dB(A) triggering the need to consider mitigation. Note that the operational noise criterion of 57 dB(A) at the property line does not apply to construction noise impacts.

4.4.2 Environmental Setting – Noise

The pre-existing noise environment in the project area was characterized by McMahon & Mann Consulting Engineers, P.C. (MMCE) on February 19, 2010, by taking representative ambient (or background) noise measurements at six nearby locations. These locations are shown on Figure 4-2 with the measured Leq noise levels. Levels generally were in the range from 45 to 55 dBA, with a higher level of nearly 68 dBA measured at a location on Bovee Road, south of the soil borrow areas. This higher level was associated with an increase in wind speed. Background noise levels at all locations were due to natural sources (such as wind-generated noise), noises produced by the occupants of nearby residences and their pets (such as vehicle noise and dogs barking), and, at some locations, noises emanating from the present landfill operations. Measurements at all locations were taken at approximately 1.5 meters above ground level. Since noise levels were taken in February, with snow cover on the ground and no insect noise, they can be considered to be conservatively low (that is, noise levels from Spring through Fall would probably be somewhat higher).

4.4.3 Significant Environmental Impacts – Noise

- Operational Noise Impacts

Calculated estimates of sound levels along the east, west and south property lines and at sensitive receptor locations nearest project area operations are provided in Table 4-1. Property lines and nearest receptor locations are shown on Figure 4-2. Estimates were calculated based on distance and surface noise attenuation factors alone. Attenuation due to barriers, topography, wind, atmospheric absorption, and other minor factors were not included. It was assumed that during normal operations, one excavator would be operating, loading off-road trucks, which would be idling while the excavator was in operation, and the excavator would then be idling as the truck pulled away and another truck pulled into position. The source level (1-hour Leq) for this type of operation has been estimated to be 78 dBA.

Criteria considered included the 1 hour Leq of 57 dBA (NYCRR Subpart 360-1.14(p)) at or beyond the Mill Seat Facility property line for noise generated by operations, and an increase in the 1-hour Leq of 6 dBA or more at any sensitive receptor (NYDEC Program Policy) for noise generated by operation or construction activities.

Estimated noise levels indicate that the criterion of 57 dBA will be met at all property lines, with the

east property (with the smallest buffer distance) experiencing the highest noise level. The closest residences (on Edgewood Lane) are approximately 1,200 feet or more away from any project operational activities, and would experience noise increases of only 1 dBA.

- Construction Noise Impacts

Calculated estimates of sound levels at sensitive receptor locations nearest project operations are provided in Table 4-2. Estimates were again calculated based on distance and surface noise attenuation factors alone. Attenuation due to topography, wind, atmospheric absorption, and other minor factors were not included. It was assumed that during the construction phase of the borrow project, up to three pieces of heavy equipment would be operating, excavating and stripping soils during the initial phases of site development. The source level (1-hour Leq) for this type of activity has been estimated to be 84 dBA.

The only criterion considered was the 1-hour Leq increase of 6 dBA or more at any sensitive receptor (NYDEC Program Policy).

Estimated noise levels indicate that the closest residences (on Edgewood Lane) would experience noise increases of only 3 dBA.

4.4.4 Environmental Impacts Mitigation – Noise

Since criteria levels are not expected to be exceeded by project operations, additional mitigation should not be required. To reduce noise impacts, mufflers are utilized on all facility equipment and will be utilized for project operations. If noise complaints are received from nearby residents, WMNY may request permission to take actual noise measurements at the receptor location during normal project operation, to determine if criteria levels are being exceeded. If necessary, equipment operations will be limited or modified, or barriers will be constructed, so that applicable criteria levels are not exceeded. Note also that borrow operations will not be continuous, so that elevated noise levels (although moderate) will also not be continuous.

4.5 Visual/Aesthetic

Field observations in support of a visual resource assessment were obtained by MMCE on February 19, 2010, and are included as Appendix F. Observation forms for each location include a description of the location, an estimate of tree height between the observation point and the project areas, and a photograph taken in the direction of the project. Each observation location is plotted on Figures 4-3 and 4-4. Observation points were picked to represent potentially sensitive viewpoints, which in this case consisted of residences, with the exception of location number 4, which is at the intersection of O'Brien Road and Brew Road, where there are no residences. Notable in the photographs is that the landfill itself, which is located immediately north of the project areas, and rises approximately 110 feet above the surrounding area, is not visible from any of the residential viewpoints. It is fairly clear from simply examining the photographs, that the soil borrow areas, which will be excavated below existing ground level, will not be visible from any of the sensitive viewpoints, due to topography, screening by trees, or both.

4.5.1 Environmental Setting – Visual

The land use in the project area is primarily rural residential, agricultural, and forest, with the Village of Bergen approximately 1 mile to the north. A general location map showing the area surrounding the Mill Seat Facility is provided on Figure 1-1.

The topography of the site and the surrounding area is shown on Figures 2-1, 2-2 and also on Figure 4-4.

Vegetated areas in the region consist of woodlands with deciduous and evergreen trees and shrubs, and agricultural fields consisting of pastures and row crops, and meadows.

4.5.2 Significant Environmental Impacts – Visual

As mentioned above, it is fairly clear from simply examining the photographs, that the project areas, which will be excavated below existing ground level, will not be visible from any of the sensitive viewpoints, due to topography, screening by trees, or both. To supplement this observation, cross sections have been prepared and included on Figures 4-5 and 4-6. The sensitive viewpoint locations are not shown, but would be located adjacent to the roads, which are shown. Although the

topography around the facility is fairly flat, the intervening trees will screen the project from roadside viewpoints.

4.5.3 Environmental Impacts Mitigation - Visual

Since there will be no significant visual impacts, mitigation is not required.

4.6 Demographics

4.6.1 Environmental Setting - Demographics

The Mill Seat Facility is located east of Interstate 490, in a lightly populated area in the Town of Riga, Monroe County, New York. The Town of Riga is a rural community with a 2000 census population of 5,437, and an area of 35.3 square miles. The largest population center in the town is the Village of Churchville, in the northwestern part of the town, with a 2000 census population of 1,887. The Village of Bergen, in the neighboring Town of Bergen, is located about 1 mile north of the Mill Seat Facility, with a 2000 census population of 1,240.

4.6.2 Significant Environmental Impacts - Demographics

There will be no significant demographic impacts resulting from this proposed soil borrow project. Direct job creation will not change significantly from current levels. There are no expected demands on local public services.

4.6.3 Environmental Impacts Mitigation – Demographics

Since there will be no significant demographic impacts, mitigation is not required.

5.0 UNAVOIDABLE ADVERSE IMPACTS

The most significant unavoidable adverse impact area is related to geological resources. The proposed soil borrow project at the Mill Seat Facility will result in the excavation of approximately 62 acres of land area and the removal of approximately 1,162,000 cubic yards of soil. Topographic features will be permanently altered, resulting in reduced ground surface elevations in the soil borrow areas. Once the reclamation plan is implemented, which includes replacement of topsoil and establishing a vegetative cover, the area could resume its current functions as agricultural land and wildlife habitat.

6.0 ALTERNATIVES

Project alternatives are addressed in the following sections and include alternative sites, alternative sizes, alternative design and operation, and the “no action” alternative. In approaching the evaluation of alternatives, the applicant has complied with the requirements of SEQR (6 NYCRR Part 617 Section 9), which state that the DEIS should contain “a description and evaluation of reasonable alternatives to the action that are feasible, considering the objectives and capabilities of the project sponsor”.

6.1 Alternative Sites

The County and WMNY own approximately 640 acres of land at the Mill Seat Facility. The applicant could potentially develop other locations, but the preferred site has the required depth and volume of soil (above bedrock) and is located to minimize haul distance. Nearby off-site locations with the required soil volume (referred to as "drumlins") potentially exist, but haul distances would be greater and use of these other potential sites would result in more significant environmental impacts as discussed below.

As shown on Figure 6.1, there are two drumlins within one mile of the landfill, one to the north and one to the south. Although not located on property owned by the County or WMNY, one or both of the properties could potentially be acquired and utilized as borrow area(s).

The alternative sites however would not meet the project’s purpose and need as effectively as the preferred site. One of the key environmental issues considered in developing the plans for the preferred site is the proximity to the NYSDEC wetlands, in particular Wetland RG-6, which lies between the east and west borrow areas. As described in the Hydrogeologic Report, an important hydrogeologic factor that protects Wetland RG-6 from the planned borrow activities is the fact that it is situated within till with a low hydraulic conductivity. This condition leads to the conclusion in the Hydrogeologic Report that soil excavations in the area of Wetland RG-6 would have little impact on recharge to the wetland. As described in Section 3.6, in identifying and developing the plans for the preferred site, the County has been mindful of avoiding potential impacts to the NYSDEC wetlands. The plans for the preferred site include measures designed to protect the functions and value of the surrounding wetlands and monitor their condition throughout the project duration.

As shown on Figure 6.1, NYSDEC and Federal wetlands are also found next to the drumlins north and south of the facility. Because of their proximity to wetlands, developing these alternative sites would require an investigation of the wetlands similar to that completed for the preferred site. Measures, similar to those planned for the preferred site, would have to be incorporated into the development plans to protect the wetlands. Furthermore, the wetlands surrounding the alternative sites may not have the same natural hydrogeologic protection as Wetland RG-6 (i.e., surrounded by low hydraulic conductivity till). Therefore, it is expected that the wetland issues for the alternative sites would be similar to those for the preferred site and depending on the hydrogeologic conditions, the wetland impacts could be greater than those for the preferred site.

Moreover, other environmental impacts associated with developing the alternative sites would be similar or more significant than those for the preferred site. The alternative sites would require a borrow plan with similar excavation issues as the preferred site but with more significant transportation issues. Developing the alternative sites would require hauling soil from off-site to the landfill site. The increased haul distance would result in an increase in dust generation, energy use and noise. Additionally, developing the site south of Bovee Road would require that the traffic cross Bovee Road, causing traffic and maintenance impacts to this public road.

In addition to the increased traffic impacts, developing one of the alternative sites would also likely increase noise and visual impacts compared to the preferred site. This is because the preferred site is surrounded by property owned by WMNY and the County, which provides a buffer for noise and visual impacts that would likely not be available at the alternative sites.

Developing an alternative off-site borrow source would also impact the project schedule and cost. The schedule would be impacted (potentially requiring that soil be temporarily trucked in from other locations), since purchase negotiations would need to be conducted, and additional environmental studies on the sites (and wetlands adjacent to the sites) would be required. The cost of acquiring the off-site location(s) would add to the cost of the borrow project and potentially require relocation of current residents. Additionally, the off-site locations, if acquired by the County, would be removed from the tax rolls.

It should be noted that, WMNY owns and operates the High Acres Landfill and Recycling Center (High Acres Facility) located on Perinton Parkway in the towns of Perinton and Macedon, Monroe and Wayne Counties, New York. The High Acres Facility currently has a surplus soil stockpile.

WMNY has recently corresponded with the NYSDEC (letter to NYSDEC dated November 18, 2010 and letter from NYSDEC dated December 29, 2010) and has developed a contingency plan to utilize this soil on an as needed basis in the event that the proposed project is not operational (including receiving necessary approvals) prior to the depletion of soils at the Facility. However, obtaining soil from the High Acres Facility is not the preferred alternative because of the 33 mile haul distance and the potential environmental impacts associated with it including those impacts identified above.

Because of the potential for increased adverse environmental impacts and the extended schedule and increased cost, it is believed that developing the alternative sites would not meet the project's purpose and need as effectively as the preferred site.

6.2 Alternative Size

The proposed 62-acre size of the project has been selected to provide the soils needed for operation of the permitted landfill.

6.3 Alternative Design/Development Schedule

The design of the project is based on the quantity of soils required and the proximity of the proposed project areas. The County needs to obtain additional soils for the operation of the permitted landfill by July 2011, and if it does not obtain approval and begin operation of the proposed project by then, continued operation of the facility will require that large quantities of soils be acquired and transported to the facility from off-site sources. Thus, the schedule for the permitting and commencement of operation of the project is well established.

Most of the estimated soil shortfall for the permitted facility is needed for cover soil and landfill operations with a portion needed for daily cover operations. As discussed in the soil assessment included in Appendix B, original soil estimates for the Mill Seat facility underestimated both the quantity of final cover required and the amount of daily cover that would be consumed. Daily cover is material that is used each day to cover the active waste areas. This material has historically been provided by both on site borrow soil and through the use of beneficial use determination (BUD) soils. BUD soils are approved waste materials (mainly waste soils) that can be used for daily cover.

The use of the long term average amount of BUD soils available to the site were included in the Appendix B assessment, though BUD soil availability is not constant and can change from year to year.

In addition to using BUD soils, the regulations do allow the use of alternative daily cover (ADC) materials. Unlike BUD, ADC can be tarps or spray on materials that can temporarily cover active waste areas. WMNY is currently evaluating the technical and economic feasibility of using ADC and has found that there are limitations to the use of these materials primarily due to weather restrictions. Because of these limitations, the amount of daily cover that could be provided by ADC cannot be reliably estimated.

Even if it was assumed that BUD or ADC could be reliably estimated, use of these materials would not reduce the overall soil need enough to significantly change the soil borrow plan. Therefore, the need to develop a source of soil would remain.

6.4 No Action

Failure to proceed with the proposed soil borrow project would mean that the Mill Seat Facility would need to obtain necessary soils from off-site sources. Although technically feasible, costs would be higher, and transport to the landfill would result in increased impacts associated with road maintenance, traffic impacts, air quality and noise.

7.0 IMPACTS ON GROWTH/CHARACTER OF COMMUNITY

It is not expected that the development of the proposed soil borrow areas at the Mill Seat Facility will have a significant impact, positive or negative, on growth in the local area. Few, if any, new jobs would be created, and the land area to be used is presently owned by the applicant, and would not likely ever be made available for residential or commercial development. Soils for operation of the landfill would need to be obtained from either on-site or nearby off-site sources. Regardless of the source of the needed soils, the impacts on growth and character of the community would be very small.

8.0 EFFECTS ON THE USE AND CONSERVATION OF ENERGY

Energy (primarily in the form of diesel fuel) will be consumed in the excavation of soils in the project areas, and in the transportation of soils to the landfill site.

Over the remaining life of the facility, these soil excavation and transportation activities would be performed even if the proposed on-site soil borrow areas were not developed, but the excavation would be at off-site locations, and the transportation distances (and energy use) would be greater.

The operators of the Mill Seat Facility will have an economic incentive to conserve energy use, to the extent consistent with operation of a safe, secure facility.

9.0 IRREVERSIBLE/IRRETRIEVABLE COMMITMENT OF RESOURCES

The project areas at the Mill Seat Facility will result in the excavation of approximately 62 acres of land area and the removal of approximately 1,162,000 cubic yards of soil. Topographic features will be permanently altered, resulting in reduced ground surface elevations in the soil borrow areas. Once the reclamation plan is implemented, which includes replacement of topsoil and establishing a vegetative cover, the area could resume its current functions as agricultural land and wildlife habitat. Development of the borrow areas will occur over the period from 2011 to approximately 2018, when the remaining permitted air space in the landfill will be exhausted.

The benefits of the project will include the provision of necessary soil resources to complete the operation of the landfill, in a manner that minimizes the impact of transporting soils on public highways.

10.0 REFERENCES

1. Clark Engineers and Associates, "Draft Environmental Impact Statement - Mill Seat Solid Waste Landfill, Brew Road, Town of Riga, Monroe County, New York," prepared for Monroe County, as Lead Agency, April 1989.
2. Clark Engineers and Associates, "Final Environmental Impact Statement - Mill Seat Solid Waste Landfill, Brew Road, Town of Riga, Monroe County, New York," prepared for Monroe County, as Lead Agency, June 1989.
3. Clark Engineers and Associates, "Draft Supplemental Environmental Impact Statement - Mill Seat Solid Waste Landfill, Brew Road, Town of Riga, Monroe County, New York," prepared for Monroe County, as Lead Agency, August 1990.
4. Clark Engineers and Associates, "Final Supplemental Environmental Impact Statement - Mill Seat Solid Waste Landfill, Brew Road, Town of Riga, Monroe County, New York," prepared for Monroe County, as Lead Agency, October 1990.