

## **APPENDIX G**

**Borrow Area Use Plan  
(Bound Separately)**

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

**6 NYCRR PART 360 SOLID WASTE MANAGEMENT PERMIT  
MODIFICATION APPLICATION**

**BORROW AREA USE PLAN  
APPENDIX G OF THE DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT  
STATEMENT**

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## **ATTACHMENTS**

Attachment A	Part 360 Permit Modification Application Form
Attachment B	Full Environmental Assessment Form
Attachment C	NYSDEC and US Army Corp of Engineers Joint Application for Article 24 Freshwater Wetlands
Attachment D	Hydrogeologic Investigation Report
Attachment E	Stormwater Analyses
Attachment F	Wetlands Monitoring Plan for Wetlands RG-5, RG-6 and RG-7

## **1.0 INTRODUCTION**

### **1.1 PURPOSE**

This Borrow Area Use Plan (BAUP) is submitted in support of a Solid Waste Management Facility Permit Modification application for construction and operation of a soil borrow project (the project) at the Mill Seat solid waste disposal facility, in the Town of Riga, Monroe County, New York (the facility). The facility is owned by Monroe County (the County), and operated by Waste Management of New York, L.L.C. (WMNY). The location of the facility is shown on Figure 1. The facility property leased to WMNY is approximately 385 acres in size.

This BAUP addresses proposed modifications to borrow activities at the facility. The project is necessary to provide soil to operate and close the presently permitted landfill (the landfill site or site). The current soil borrow activities at the Mill Seat facility are described in its current 6 NYCRR Part 360 Solid Waste Management Permit (Part 360 Permit) (8-2648-00014/1-0).

Attachment A of the BAUP includes a completed Part 360 Permit Application for this modification request. The project is subject to review under the State Environmental Quality Review Act (SEQRA). A Full Environmental Assessment Form is provided in Attachment B. A Draft Supplemental Environmental Impact Statement (DSEIS) is being prepared to evaluate the potential impacts of the project. Previously, Draft and Final Environmental Impact Statements were prepared for the Mill Seat Facility during the permitting process that was completed in 1990; as a result, the DSEIS will address only the potential significant adverse impacts associated with the project that were not addressed in the prior SEQR analyses.

Attachment C of the BAUP contains a completed New York State Department of Environmental Conservation (NYSDEC) and US Army Corps of Engineers (USACE) Joint Application for Article 24 Freshwater Wetlands. The BAUP has been developed to limit potential wetland disturbances and changes to the surface water drainage. The Joint Application has been submitted for review by the NYSDEC and the USACE.

## 1.2 SCOPE

This BAUP has been developed in accordance with the requirements of Title 6 New York Code of Rules and Regulations (6 NYCRR) Part 360-2.3(l) and Part 422. The BAUP includes a Borrow Plan and a Reclamation Plan, each of which include a graphic portion and a written portion.

The graphic portion of the Borrow Plan consists of Figures 1 through 7 that illustrate the following features:

- geographic location of the project site;
- location of adjacent topographic, cultural, and land-use features;
- land areas to be impacted during each phase of the project; and
- significant facility elements, including excavation areas, roads and haulageways, drainage control facilities, and visual and/or noise barriers.

The written portion of the Borrow Plan includes descriptions of the following:

- present land use and existing conditions;
- proposed borrow operation;
- proposed borrow methods;
- proposed methods for prevention of pollution and soil erosion; and
- affected soils.

The graphic portion of the Reclamation Plan consists of Figures 4 through 7 that illustrate the following features:

- borrow area limits for the project;
- final, post-reclamation grading plan; and
- final stage of reclamation, including vegetated areas, drainage features, water bodies, roads, and other pertinent features.

The written portion of the Reclamation Plan includes descriptions of the following:

- proposed post-borrow land-use plan;
- proposed reclamation methods; and
- proposed reclamation schedule.

## **2.0 BORROW PLAN**

### **2.1 PROJECT OVERVIEW**

The 6 NYCRR Part 360 Solid Waste Management Facility Permit (Permit) for this facility provides for construction and operation of a 98.6-acre landfill. The Final Supplemental Environmental Impact Statement<sup>1</sup> (FSEIS) stated that the facility soil balance had a surplus of approximately 550,000 cubic yards. The soil borrow for the facility was based on removing materials from within the permitted landfill footprint and ancillary grading work. Based on current operations and soil balance calculations, WMNY has estimated that 1,144,000 cubic yards of soil are required to operate and close the present landfill site in addition to soil available within the landfill site and stockpile.

The soil borrow project for the facility is proposed to be located on property south of the existing landfill site. The property is currently zoned for landfill operations, including development of a borrow area. As shown on Figure 2, the project consists of an East Area and West Area, totaling approximately 61.6 acres in size, located to the south and southeast of the existing landfill site. WMNY is planning to operate the project in two phases; the West Area will be excavated first, followed by the East Area. The West Area is approximately 20 acres and the East Area is approximately 41.6 acres. Approximately 364,000 cubic yards and 798,000 cubic yards of material 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.

The soil borrow project was developed as shown on Figure 2 into two areas to avoid impacts to the NYSDEC jurisdictional wetlands and associated buffers. Protection of these wetlands was considered when creating the excavation grades, sedimentation basin designs, borrow sequencing and reclamation plan.

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<sup>1</sup> Monroe County, Mill Seat Solid Waste Landfill, Final Supplemental Environmental Impact Statement and Responsiveness Summary, prepared by Clark Engineers & Associates, October 1990.

This section describes the existing conditions, the borrow operations and provides a brief discussion of the potential environmental impacts. The project will be reclaimed to permanent ponds and upland meadows, as discussed in Section 3.0.

## **2.2 EXISTING CONDITIONS**

### **2.2.1 Facility History and Land Use**

The facility was issued a Part 360 permit and began operations in May of 1993. The approximate limits of the landfill are shown on Figure 2. The permit included excavating soil from within the permitted landfill footprint and ancillary grading work.

WMNY is currently developing Stage IV of the landfill. Stage IV A excavation and liner is complete and Stage IV B and C excavation and liners are yet to be completed. Additionally, two large stockpiles created during construction of Stages I and II are located south of Stage IV. The excess soil in Stage IV and the stockpiled soils will be utilized prior to the initiation of the project.

The facility is located within the Town of Riga in Monroe County. Land uses surrounding the project are primarily agricultural, as well as rural and residential. Properties in proximity to the project and the existing landfill include wood areas, farmland, and residential areas. The agricultural uses in this area consists primarily of farming including the growing of hay, small grains and corn as well as pasturage. The West Borrow Area and the land associated with the facility are not currently used for agricultural operations. A portion of the East Borrow Area is used intermittently as active farmland.

Land use categories at the facility include municipal solid waste landfilling and wildlife habitat. Landfill operations include the 98.6-acre existing landfill, and approximately 80 acres of ancillary facilities, including leachate storage tanks, sediment ponds, office/maintenance buildings, access roads and a landfill gas to energy plant as shown on Figure 2.

### **2.2.2 Existing Topography**

The western of the project (West Area) lies at the southwestern end of a drumlin. Prior to development of the facility, this drumlin's long axis was oriented approximately 45 degrees east of north. Currently, elevations of undisturbed terrain in the West Area range from Elevation (El.) 706 feet near the top of the drumlin to El. 670 feet in the southeast portion of the area.

A soil stockpile derived from existing landfill operations is located within the limits of the West Borrow Area. This existing stockpile will be removed prior to excavation operations for the project.

The East Borrow Area has several elongated features that are significantly smaller than the drumlin in the West Area, but that show similar orientation. Existing elevations in the East Area range from El. 676 feet on the west side of Brew Road to El. 660 feet on the east side of Brew Road.

### **2.2.3 Soils**

Subsurface conditions at the facility have been investigated as part of the landfill permitting process and operations over approximately the past 25 years by advancing test borings, test pits, and through observations made during borrow operations. Geomatrix Consultants Inc. (Geomatrix) supplemented the data from these previous investigations with a Hydrogeological Investigation Report (see Attachment D) within and beyond the project limits (see Figure 2). Cross sections illustrating the overburden thickness observed at the boring locations are included on Figure 3.

Soils at the project occur as a result of glacial deposition and deformation beneath a Wisconsin 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. Geomatrix observed a deposit of sand and gravel over the till at two locations in the East Area (see Figure 3). At these locations, the sand and gravel deposit varies from less than 1 foot to 16 feet thick.

Geomatrix describes the till as two units; coarse-grained till (upper till unit) containing cobbles and boulders, and a dense lodgment till (lower till unit) with less cobbles or boulders, but more dense than the upper coarse-grained till unit. In general, the till deposit is described as sandy silty clay with little gravel (CL-ML) or as silty clayey sand with little gravel (SC-SM). Because of its high silt and clay content, the till exhibits low hydraulic conductivity, on the order of  $10^{-6}$  centimeters per second (cm/sec) or less.

The sand and gravel deposit is described as loose to firm, well graded sand with medium to coarse gravel. Based on its gradation, Geomatrix estimates that the sand and gravel has a hydraulic conductivity on the order of  $10^{-1}$  cm/sec which is relatively high compared with the till.

Bedrock at the facility 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. Geomatrix reports that the geometric mean of the hydraulic conductivity data for the weathered upper bedrock zone is  $3 \times 10^{-4}$  cm/sec, or about two orders of magnitude greater than that of the overlying till.

#### **2.2.4 Groundwater**

Groundwater exists within the till and flows radially from the drumlin area toward the east, west and south. Because of its low hydraulic conductivity, the flow velocity in the till is very slow.

Groundwater also exists within the sand and gravel deposit. However, because of its relatively high hydraulic conductivity, groundwater drains quickly from the sand and gravel deposit. Following dissipation of seasonal recharge, the sand and gravel unit is likely to become unsaturated.

The predominant groundwater flow zone at the facility is the overburden/upper bedrock zone. Wells installed into this zone contain water throughout the year and exhibit a relatively high hydraulic conductivity compared with that of the overlying till. Combined,

these factors indicate that nearly all shallow groundwater recharge occurs in areas beyond the project.

### 2.2.5 Wetlands

Barton & Loguidice, P.C. (B & L) delineated wetlands within and adjacent to the project (see Figures 2 and 3). As indicated on the figures, three NYSDEC Wetlands occur near the project. Wetland RG-5 lies to the west, Wetland RG-7 to the east and Wetland RG-6 lies between the Proposed West and East Areas. B & L identified two other wetland areas as potential USACE jurisdictional wetlands. The first is the drainage way that connects RG-6 to RG-5 and the second is an isolated wetland located in the East Area of the project. B & L has indicated that the isolated wetland may be non-jurisdictional.

Surface water is present in Wetland RG-6 and 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.

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 existing landfill (drainage area approximately 93 acres) flow overland and recharges surface water in Wetland RG-6. Water permanence within the wetland is controlled by the elevation of the drainage channel that flows out of the wetland.

Groundwater also temporally recharges Wetland RG-6; however, the volume of recharge from groundwater is substantially lower compared to the volume of recharge from precipitation and runoff. This is due to the low hydraulic conductivity of the saturated till and the small hydraulic gradients in the area of the wetland that effectively constrain the volume of groundwater that discharges to the wetland.

Surface water elevations measured in Wetland RG-5 are nearly 10 feet lower than Wetland RG-6. In fact, the surface water elevation in Wetland RG-5 is similar to the elevation of the bedrock surface and bedrock groundwater elevations. These data support a conclusion that Wetland RG-5 is a receptor of overburden and shallow bedrock groundwater in addition to precipitation and surface water runoff from a drainage area of approximately 291 acres. Similar conditions are anticipated for Wetland RG-7, which is located east of the project, however the drainage area contributing runoff to RG-7 is larger, approximately 538 acres.

### **2.2.6 Surface Water Drainage**

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. 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.

### **2.2.7 Man-Made Features**

The project area lies on the south side of the existing landfill. Currently the project area contains former agricultural fields, wooded hedgerows, soil stockpiles and foundations of former structures located along Brew Road. Brew Road is a north-south roadway that bisects the East Area. Two culverts that drain much of the East Area flow beneath Brew Road toward NYSDEC Wetland RG-7.

## **2.3 DESCRIPTION OF MINERAL AND BORROW OPERATIONS**

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 areas of the project, West and East 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 Mineral Types**

The borrow operation will predominantly be in the till, which will be used for landfill construction and operations. Sand and gravel deposits encountered during excavation will also be utilized in the landfill operations.

### **2.3.2 Borrow Sequence and Method**

The project consists of an East and West Area. The West Area is approximately 20 acres, and will be excavated from east to west between El. 665 feet and El. 674 feet. The East Area is approximately 41.6 acres, and will 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 in each area will begin at the lowest elevation 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 borrow area excavation. The West Area basin should be developed approximately three months prior to beginning the borrow area operation. The East Area basin will be developed one year prior to completion of the West Area. This will allow the basin to be well established before borrow area operation. Each area will then be excavated following the proposed base grade. 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 will contain permanent basins and gentle to steep sloping upland areas.

As shown in the cross-sections on Figure 4, the project is designed to maintain the excavation within the till deposit. The base grades were developed to leave 10 to 15 feet of till over the underlying bedrock.

The work sequence for the project is described below.

1. The West Area will be excavated first, beginning with the sedimentation basin.
2. Silt fence or other temporary erosion and sediment control structures will be placed along the boundary between the borrow area and the NYSDEC wetlands to prevent sediment discharge.
3. The sedimentation basin and haulageway areas will be cleared, grubbed and stripped of topsoil. Excavated topsoil will be stored in stockpiles for future reclamation (stockpiles will be treated as described in Section 2.3.6).
4. The haulageway areas will be graded to direct surface water runoff to the existing and proposed sedimentation basins.
5. Material will be excavated to construct the sedimentation basin. Excavated soil will be transported to the work area at the landfill.
6. When construction of the sedimentation basin is complete, clear, grub and strip topsoil from the borrow area as required for each year's construction/operation.
7. Drainage swales and silt traps will be maintained to direct surface water from the current excavation area to the sedimentation basin.
8. Slopes will be excavated to the required reclamation grades so that backfill is not required at a later time.

9. Temporary seeding and mulch will be applied to completed areas to create a buffer between the excavation area and sedimentation basin. Reclamation will not occur until the entire area is excavated and graded.
10. The East Area basin will be developed one year prior to completion of the West Area.
11. The East Area will be excavated upon completion of the West Area. The sequence of work will follow the same steps as described above, except that Brew Road will be removed during excavation.

Excavation within the project area, as shown on the figures, will not remove any portion of the NYSDEC jurisdictional wetlands or the associated buffers. Minimal grading adjacent to the West Area basin will be required in the buffer area of Wetland RG-6 for installation of the basin discharge pipe and spillway. Additionally, silt fences, stormwater basins and other erosion and sediment control measures will be utilized to protect the wetlands during soil borrow operations.

The six monitoring wells that were installed during development of this BAUP and are located within the borrow areas will be decommissioned as they are encountered during excavation.

### **2.3.3 Grading and Setbacks**

The grading plan for the project is shown in plan view on the Reclamation Plan, and on the cross sections shown on Figure 4. Grading and borrow area perimeter setbacks will be as follows.

- The perimeter slope of the basins from the water's edge to undisturbed adjacent land will be on a slope no greater than 1 vertical on 3 horizontal;
- A setback of 25 feet from the top of slope of the borrow area to the property lines will be maintained; and
- A 100-foot buffer will be maintained on areas bordering the NYSDEC designated wetlands. The wetland buffer will be demarcated with temporary construction fencing that will be maintained throughout the life of borrow activities.

Care will be taken during excavation operations to prevent the need for backfilling slopes at a later time. Excavations shall be made to the reclamation grades shown on Figure 4.

#### **2.3.4 Surface Water and Silt Control**

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 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.

The stormwater analyses presented in Attachment E include 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 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 area of the project 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 demarcated wetlands.

Drainage patterns from the facility will remain the same as originally designed. Surface water collected from the existing landfill cap will be directed to the roadside ditch and then into the existing sedimentation basin. The landfill sedimentation basin will continue to discharge surface water into NYSDEC regulated Wetland RG-6.

Erosion and sediment control measures will be inspected periodically and repaired as necessary, as indicated in the SWPPP.

### **2.3.5 Groundwater Controls**

As described in Section 2.2.4, predominate groundwater flow at the facility is within the upper bedrock zone. Therefore, since the bedrock will remain confined by a layer of till, groundwater flow within this zone will not be affected by the borrow operations. In addition, the potential risk for groundwater break-out from the upper bedrock zone is negligible, since the hydraulic gradient (where present) is low and hydraulic pressures are not sufficient to overcome the confining pressures of the till.

During excavation of the till deposit, 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. As discussed in Section 2.3.2, the sedimentation basins will be excavated first, therefore if groundwater is encountered, swales and ditches will be created to transmit excess water directly into the sedimentation basins.

### **2.3.6 Processing**

Material processing will not occur as part of this project.

### 2.3.7 Haulageways and Site Access

Haulageways will be used for employee access, equipment access, and for transporting soil material. The haulageways will be graded, stabilized, and maintained as necessary to provide safe, efficient operations and to minimize erosion and off-site sedimentation.

### 2.3.8 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 below. Brush will be stored temporarily within each borrow area. Prior to accessing the material beneath the pile, the brush will be chipped for placement either on temporary roads in the project area or in operation of the existing landfill.

Topsoil will be stripped from portions of the borrow areas as they are developed. The topsoil from each area will be placed in the stockpile. A silt fence will be placed downgradient of the topsoil stockpile. Material will be added to the stockpile as additional portions of the borrow areas are developed. Therefore, the topsoil stockpiles will have a working face where additional material will be placed as the borrow area is developed.

Seeding will be placed on areas of the stockpile that will not receive additional material. The stockpiles will be seeded within 14 days of when material is last placed in the stockpile. Additionally, seeding will be placed on the working face of stockpiles that are not planned to receive additional material within the remainder of the current construction season.

The following seed mixture will be used as temporary vegetation on stockpiles.

Perennial Ryegrass	100 lbs/acre
Annual Rye	100 lbs/acre

The project area will be maintained in a clean and orderly fashion. Wastes generated during excavation operations or during maintenance of equipment will be collected and disposed of each workday.

## 2.4 POTENTIAL ENVIRONMENTAL IMPACTS

The DSEIS for the project will include an evaluation of potential impacts associated with the soil borrow project. Potential environmental impacts and associated mitigation measures, which will be addressed in the DSEIS, include the following:

- Land use and zoning;
- Water resources;
- Air resources;
- Ecological resources;
- Aesthetic resources;
- Historic and cultural resources;
- Transportation and traffic;
- Energy;
- Noise and odor;
- Growth and character of community; and
- Wetland resources.

A specific area of concern is the adjacent NYSDEC jurisdictional Wetlands RG-5, RG-6 and RG-7. Excavation within each area of the project, as shown on the figures, 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 borrow area project.

B & L has completed a Wetland Monitoring Plan for Wetlands RG-5, RG-6 and RG-7 (see Attachment F). 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.

### **3.0 RECLAMATION PLAN**

Proposed reclamation plans for the project are described in the following sections.

#### **3.1 LAND USE OBJECTIVE**

The land use objective for the project will be two permanent ponds, and upland meadows. The final base grades and pond areas are shown on Figure 4.

##### **3.1.1 Disposition of Materials**

Material borrowed from the project area will be used for permitted landfill construction and operations with limited stockpiling, residue, or refuse. Topsoil will be replaced to a depth of 4 to 6 inches on all areas of the excavation. Prior to topsoil placement, all areas should be scarified.

Oversized material, if encountered, will be buried to a compacted 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 borrow area face or will be used to create irregular topography during reclamation. Spoil piles will not remain on the site after borrow operations are terminated.

##### **3.1.2 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.

### 3.1.3 Drainage and Grading

The side slopes of each area of the project will be graded to a maximum slope of 3 horizontal on 1 vertical. The slopes will be created by excavating to the lines and grades indicated on Figure 4.

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 at an elevation of approximately 670 feet for the West Area and approximately 657 feet for the East Area. The spillways will be graded and stabilized.

### 3.1.4 Re-vegetation

Topsoil will be placed on the reclaimed ground surface and slopes above the basin level as shown on Figure 4. 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 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.

### **3.1.5 Wetland Mitigation**

No significant impacts will occur to the jurisdictional wetlands or buffer zones. As such, wetland mitigation is not required.

## **3.2 RECLAMATION SCHEDULE**

The project is separated into two areas, West and East. The West Area will be excavated first, starting from the southeast and working toward the northwest. The East Area Stormwater Basin will be excavated one year prior to completion of the West Area. Borrow operations in the East Area will commence upon completion of the West Area and will be excavated starting in the southwest corner and working toward the northeast. Temporary grading and seeding will occur after each construction season and final reclamation will occur within one year after completing each excavation area.

All equipment and stockpiles will be removed from the site as part of reclamation.