

**APPENDIX L**  
**CASE 10-T-0189**  
**SOIL AND MATERIALS**  
**MANAGEMENT PLAN [EMCP B(14)]**

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**APPENDIX L**  
**SOIL MANAGEMENT PLAN**  
**CASE 10-T-0139**



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## **1.0 INTRODUCTION**

This Soil Management Plan has been developed as an Appendix to the Environmental Management and Construction Plan (EM&CP) which was developed by the Certificate Holders for the Champlain Hudson Power Express Project (the “Project”). Section 1.0 of the EM&CP summarizes the EM&CP’s purpose and intent. The objective of this Soil Management Plan is to set guidelines for the management of excess excavated soil associated with all excavation and other land disturbance activities associated with the construction of Segments 1 and 2.

## **2.0 SOIL FILL MATERIAL GENERATION**

The material is generated by the excavation of the trench, HDD entry and exit pits, and other land disturbance activities associated with the construction of the CHPE project. The majority of material will be placed in a dump truck at the point of generation, transported and disposed offsite. Some material will be temporarily stock piled at the point of generation, such as within railroad ROWs, around the Horizontal Directional Drilling (HDD) entry and exit pits, and splice box areas. This material will then be used as backfill and/or spread within the limits of work to create a level surface. The requirements of field screening are described in Section 3.0 below. All excess material from these points of generation will be placed in a dump truck at the point of generation, transported, and disposed of in accordance with this Soil Management Plan as well as the project Erosion and Sediment Control Plan (Appendix C of the EM&CP).

## **3.0 CLASSIFYING SOIL FILL MATERIAL**

According to Title 6 of the New York Codes, Rules, and Regulations (NYCRR) 360.2(107) fill material is soil and similar material excavated for the purpose of construction or maintenance. This material will be generated from excavation of trenches and other earthwork construction activities associated with the Project. For Segments 1 and 2, since the material is originally from outside the NYC Boundary, the material would be considered general fill as long as there is no evidence of historical impacts such as reported spill events, or visual or other indication (odors, etc.) of chemical or physical contamination as identified in section 360.12(c)(1)(ii) of Title 6. Soil/fill observations will be documented by the Environmental Inspector or designated construction personnel who will maintain a record to be submitted to the Certificate Holders on a regular basis

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determined by the Environmental Inspector. This record will be submitted to DPS Staff upon request or as needed.

If the fill material originates in NYC or has evidence of contamination, the material must be classified as Restricted Use Fill or Limited Use Fill. Restricted-use fill means fill material that is up to 40 percent by volume inert, non-putrescible non-soil constituents. Limited-use fill has no volume limit for inert, non-putrescible non-soil constituents. Non-putrescible refers to material that may readily degrade or produce odors. Inert, non-putrescible material excludes plastic, gypsum wallboard, wood, paper, or other material that may readily degrade or produce odors.

For Segments 1 and 2, if soil exhibits evidence of contamination, the soil will be characterized by testing fill material samples for the following analyses:

- a) The Metals, PCBs/Pesticides, and Semivolatile organic compounds listed in section 375-6.8(b) of Title 6 of the CRR-NY
- b) Asbestos if demolition of structures has occurred on the site or if buried asbestos is discovered and will be managed in accordance with 56-2.1(w)iii of 12 NYCRR 56;
- c) Volume of physical contaminants, if present, based on visual observation; and
- d) Volatile organic compounds listed in section 375-6.8(b) of Title 6 of the CRR-NY, if their presence is possible based on site events such as historic petroleum spill, odors, photoionization detector meter or other field instruments readings.

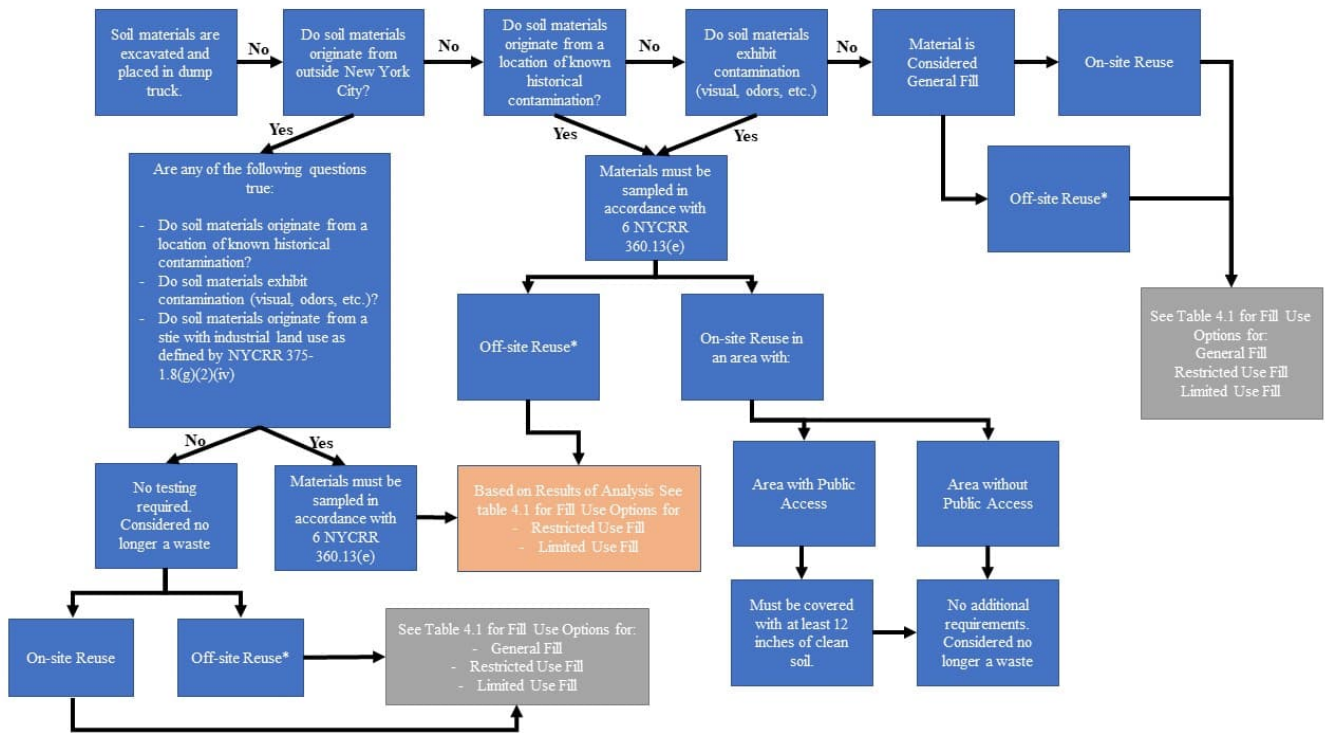
Laboratory analysis will be performed by a laboratory currently certified by the New York State Department of Health's Environmental Laboratory Approval Program (ELAP). If soil exhibits evidence of contamination, the Environmental Inspector and/or Certificate Holders will report a "Reportable Event" to the NYSDEC Oil and Hazardous Materials Spill Hotline (800/518-457-7362) (CC#64).

The minimum number of analyses for volatile organic compounds (if required) and other parameters is determined by the quantity of fill material and can be found in Section 360.13(e)(1) of Title 6 of the NYCRR.

#### **4.0 MANAGING FILL MATERIAL FROM CONSTRUCTION ACTIVITIES AS BENEFICIAL REUSE**

Figure 4.1 and Table 4.1 provide a summary of NYSDEC regulations regarding the beneficial reuse of fill material.

**Figure 4.1- Beneficial Reuse Decision Tree**



\*Offsite reuse must be in accordance with all NYDEC regulations. For instance, the offsite reuse cannot impact a wetland.

**Table 4.1 Acceptable Fill Material Uses (6 NYCRR 360.13(f))**

Fill Material Type	Fill Material End Use	Physical Criteria	Maximum Concentration Levels
General Fill	Any setting where the fill material meets the engineering criteria for use, except: <ol style="list-style-type: none"> <li>1. Undeveloped land;</li> <li>2. Agricultural crop land.</li> </ol>	Only soil, sand, gravel or rock; no non-soil constituents.	Lower of Protection of Public Health-Residential Land Use and Protection of Groundwater in section 375-6.8(b) of Title 6.
Restricted-Use Fill	Engineered use for embankments <ol style="list-style-type: none"> <li>1. subgrade in transportation corridors,</li> <li>2. on sites where in-situ materials exceed Restricted-Use Fill or Limited-Use Fill criteria.</li> </ol> Must be placed above the seasonal high water table.	Up to 40 percent by volume inert, non-putrescible non-soil constituents.	General Fill criteria except that up to 3 mg/kg (dry weight) total benzo(a)pyrene (BAP) equivalent. No detectable asbestos. In Nassau or Suffolk County – BAP equivalent does not apply. Polycyclic aromatic hydrocarbons must not exceed Protection of Groundwater Soil Cleanup Objectives in section 375-6.8(b) of this Title.
Limited-Use Fill	Engineered use for under foundations and pavements above the seasonal high water table.	No volume limit for inert, non-putrescible non-soil constituents.	General Fill criteria, except up to Protection of Public Health-Commercial SCOs for metals; up to 3 mg/kg (dry weight) benzo(a)pyrene equivalent is allowed. No detectable asbestos.

For Maximum Concentration Levels for each Fill Material Type see 6 NYCRR 360.13(f).

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#### **4.1 REQUIRED NOTIFICATIONS**

Per Section 360.13(g)(3) of Title 6 of the NYCRR, for restricted use fill and limited use fill material, the NYDEC must be notified at least five days before delivery of greater than ten cubic yards of fill material. Notification must be made on forms or in a manner acceptable to the NYSDEC and must include any analytical data required by Section 360.13(e) of Title 6 of the NYCRR. The NYSDEC may request to inspect any site receiving fill material.

#### **5.0 SOIL MATERIALS TRANSPORT OFF-SITE**

As described in Section 2.0, the majority of excavated soil generated within Segments 1 and 2 will be placed into dump trucks or similar vehicles at the point of generation and transported off-site. Some excavated soil from areas such as the HDD entry and exit pits, and the splice box locations, will be used as backfill or spread around the areas to create a level surface. If any excavated soil exhibits evidence of contamination as described in Section 3.0, it will be sampled as described in Section 3.0 and 7.0. In general, all excess excavated soil, that exhibits no historical, visual, or olfactory evidence of contamination will be immediately placed into dump trucks or similar vehicles after excavation for transport off-site.

As per CC113(g), the temporary storage of spoil and excavated materials from work in or near wetlands will be avoided to the extent practicable. Any excavated material resulting from trench excavation for utility line installation or ditch reshaping activities that may be temporarily side cast into wetlands will be backfilled or removed into an upland area per USACE requirements. Wetlands have been identified in Section 8.1 of the EM&CP as well as the Wetland Delineation Report (Appendix M of the EM&CP). The criteria for beneficial reuse of fill material are described in Section 4.1. If beneficial reuse is not feasible, off-site disposal locations will be identified for each type of potential construction derived waste (soil, vegetation, rock, spill cleanup, etc.) These locations will be identified for each Segment of the Project and will be submitted to DPS for approval prior to construction and update as needed during the regular construction progress meetings. Erosion and sediment controls for temporary stockpiles are described in the SWPPP (Appendix G of the EM&CP) and the Erosion and Sediment Control Plans (Appendix C of the EM&CP).

All transport of excess excavated soil will be performed by licensed haulers in accordance with appropriate Local, State, and Federal regulations. Haulers/Transporters will be appropriately licensed and loaded vehicles leaving the active work area will be appropriately lined, tarped,

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securely covered, manifested, and placarded in accordance with Local, State, and Federal requirements (and all other applicable transportation requirements). If the material is determined to be restricted or limited use fill, the fill transporter must complete “Notification of Fill Material Transport” form.

Trucks transporting excess and excavated soil will be secured with tight fitting covers when needed to prevent excess debris and dust around and near the active work area.

While no known contaminated sites have been identified within Segments 1 and 2, if contaminated soil is encountered during any construction activities, every effort will be made to keep trucks from coming into contact with contaminated or potentially contaminated soils. If needed, a truck wash/decontamination pad will be operated at the appropriate work/excavation area.

## **6.0 SOIL MATERIALS DISPOSAL OFF-SITE AT APPROVED DISPOSAL FACILITY**

Disposal locations for soils meeting the criteria of beneficial reuse, HDD drilling fluids, and cleared vegetation are still being identified and confirmed with landowner. Disposal locations will be selected from the list of NYSDEC approved disposal locations (see [https://www.dec.ny.gov/docs/materials\\_minerals\\_pdf/listregcdprocess.pdf](https://www.dec.ny.gov/docs/materials_minerals_pdf/listregcdprocess.pdf)). If a disposal location not on the NYSDEC approved disposal locations list the Certificate Holders will submit the location to NYSDEC and DPS Staff for approval prior to use.

Excess excavated soil that is not managed as beneficial use of fill material will be disposed of at an approved disposal facility or an approved beneficial reuse in accordance with all Local, State, and Federal regulations. This includes all applicable sections of NYCRR Part 360. Actual disposal quantities and associated documentation will be reported as required by NYCRR Part 360. This documentation may include waste profiles, test results, facility acceptance letters, manifests/bills of lading and facility receipts/weight tickets. At minimum NYCRR Part 360 Series Waste Tracking Documents for Construction and Demolition Debris will be completed and submitted to the appropriate NYSDEC department and DPS Staff.



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## 7.0 CONTAMINATION AND WASTE CHARACTERIZATION

Various site walks were performed by Project staff prior to the commencement of construction and no evidence of contamination was observed within Segment 1 and 2. Additionally, the NYSEC Remediation database was reviewed in June 2022 and no remediation sites or releases of on-going concern were identified near Segment 1 and 2. If contaminated soils and/or sites are encountered during the construction phase of Segment 1 and/or 2, the following procedures will be followed:

- a) Field screening for evidence of contamination such as the presence for volatile organic compounds will be performed using a photoionization detector (PID) on any soils excavated within five hundred (500) feet of known contamination sites.
  - o Soils exhibiting PID readings below 10 ppm, will be considered non-contaminated and can be stockpiled and used as backfill for excavation where needed.
  - o Soils exhibiting PID readings of 10 ppm or greater shall be segregated from non-contaminated soil and disposed of in accordance with the NYCRR Part 360.
- b) Air particulate monitoring will also be performed within five hundred (500) feet of all known contamination sites.
- c) As per Certificate Condition 64, the Environmental Inspector and/or the Certificate Holders will report a Reportable Event to NYSDEC via the NYSDEC Oil and Hazardous Materials Spills Hotline (800/518-457-7362) (CC#64). In addition, as per the Best Management Practices (BMP) document, the Certificate Holders have established points of contact with the NYSDEC and DPS Staff who will also be notified in the event contamination is discovered. These contacts are:
  - o Matthew Smith, DPS, (518) 402-5141.
  - o Karen Gaidasz, NYSDEC, (518) 402-9167.

In the event that field evidence of contamination is identified, potentially contaminated soils will be segregated and stockpiled on polyethylene sheeting and covered in a pre-determined staging area. The potentially impacted, stockpiled soils will then be sampled as described in Section 3.0. The contaminated soil will be properly characterized and disposed of at an off-site NYSDEC permitted facility. The excavation will be backfilled with clean, imported fill.

As per Certificate Condition 64, in the event that contamination in the ground is detected during overland construction and such contamination is of the kind that will lead to volatilization or off-gassing of such contamination/chemical constituents, the Certificate Holders shall contact the New York State Department of Health (NYSDOH) and DPS Staff prior to further disturbance (CC#64).

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If any water from the construction site (i.e., trench water) exhibits visual or olfactory evidence of contamination, it will be sampled and stored in a frac tank or similar container, removed off-site in accordance with applicable environmental regulations, and disposed of in one of the approved NYSDEC locations<sup>1</sup>. If evidence of a release or spill are found in the soil during construction, as a result of the Project's activities, construction activities will be immediately halted in the area, and the Environmental Inspector will be notified. All field screening of soil and water and air particulate monitoring will be performed in accordance with applicable environmental regulations including the NYSDEC Division of Environmental Remediation DER-10 Technical Guidance for Site Investigation and Remediation and the New York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan (CAMP) (CC#64). All results from field screening will be documented by the Environmental Inspector, in coordination with NYSDEC and DPS Staff. All necessary laboratory analysis will be performed by a laboratory with all applicable and required certifications.

If any excavated soils are found to exhibit visual or olfactory evidence of impact or contamination construction activities in the vicinity will be halted, and the Environmental Inspector will be notified. The procedures that will be followed in the event of a release or spill are described in the EM&CP Spill Prevention Control Plan in Appendix K. Any excavated soils that are found to contain hazardous substances will be analyzed and disposed of in accordance with the applicable solid waste and environmental regulations. These may include but are not limited to 6 NYCRR 360.13(d), (e), and (f). Any contaminated soils removed from the Project area may not be used as general fill.

The Environmental Inspector will report the unanticipated encounter of contaminants to the Certificate Holders, who will notify the NYSDEC, DPS Staff, and any applicable landowners. Construction will not be resumed until the contaminants of concern have been properly removed and approval to continue construction activities in the area of concern has been granted by the Environmental Inspector. All future construction activities at the referenced area of concern will be conducted in accordance with all applicable environmental regulations and procedures of this EM&CP as well as all technical specifications provided on the Plan and Profile Drawings in Appendix C.

The identification, handling, storage, testing and disposal of excess materials will be conducted in accordance with the procedures outlined in this section of the EM&CP as well as applicable local,

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<sup>1</sup> [https://www.dec.ny.gov/docs/materials\\_minerals\\_pdf/listregcdprocess.pdf](https://www.dec.ny.gov/docs/materials_minerals_pdf/listregcdprocess.pdf)

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state, and federal safety and environmental regulations, requirements, and guidelines. If supplemental field screening or laboratory analysis of excess material not already identified in this soil management plan is required or necessary due to a change in field conditions, subcontractors will submit a proposal for sampling needs to the Certificate Holders and Contractors as needed.

## **7.1 SOIL SAMPLING PROCEDURES**

Surficial soil sampling is generally conducted in potentially contaminated areas of concern, whether relating to former or current uses of the site, to determine whether contaminants are present above applicable standards. Sample locations will be biased to suspected areas of greatest contamination including stressed vegetation, soil discoloration, odor, etc. Sample locations are also chosen based on area specific requirements. This includes sampling in locations that includes past or present usage or hazardous substances or wastes, discharge points of past or present processes, and former and current containers that may contain or previously contained hazardous substances or waste. In general, the first 0-6 inches depth of soil is collected, however if evidence of contamination (staining, odors, etc.) persist additional sampling at deeper depths will be performed. For sampling performed on soil material originating in railbeds that may contain gravel, to the greatest extent possible the gravel should be removed from the sample.

Surficial soil sampling will generally be in accordance with the following procedures.

1. Use a shovel to clear any surface debris from the sampling location, including grasses or other vegetation.
2. If appropriate to the investigation, screen the soil with a PID or FID and record the results on a Field Log.
3. Sampling Procedure: Discrete Sample Collection:
  - a. Collect the sample from 0-6 inches depth (or as specified by the Environmental Inspector). In instances where a soil is collected for VOC analysis as well as other non-VOC parameters, the soil for VOC analysis must be collected first to minimize volatilization and biodegradation.
  - b. When analyzing for VOCs, the soil sample must be collected directly from the soil sample location into the sample container without disturbing the matrix structure.
  - c. Once VOC soil sampling is complete, the remaining soil to be analyzed for non-VOC parameters such as SVOCs, pesticides, PCBs, metals, or cyanide will be homogenized to create a representative sample. Prior to homogenization, twigs, roots, leaves, rocks, and miscellaneous debris will be removed from the sample using the decontaminated stainless-steel spoon or spatula. The soil will be mixed,

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quartered (divided into 4), and mixed again until a consistent physical appearance over the homogenized soil has been obtained. The soil will be transferred into the appropriate sample container using a decontaminated stainless-steel spoon or spatula.

Composite Sampling:

- a. For Composite Sampling (applicable to non-VOC's only) where several discrete samples (of equal volume) are mixed together, collect the sample from 0-6 inches depth (or as specified by the Environmental Inspector) from the first composite point. Cover the stainless-steel bowl with aluminum foil and proceed to the next sampling point. Repeat between locations. If VOC samples are also being collected at each discrete point, the stainless-steel spoon/trowel will be decontaminated between locations (Refer to Step 7). Once equal volumes of soil have been collected from each point which will make up the composite sample, the soil will be homogenized to create a representative sample. Prior to homogenization, twigs, roots, leaves, rocks, and miscellaneous debris will be removed from the sample using the stainless-steel spoon or spatula. The soil will be mixed, quartered (divided into 4), and mixed again until a consistent physical appearance over the homogenized soil has been obtained. The soil will be transferred into the appropriate sample container using a stainless-steel spoon or spatula.
4. Label the sample bottles (if the bottles are not pre-printed) with the sample location name, collection time, project name, analysis to be performed, and any other field required on the label.
5. Place the properly labeled sample bottles in a cooler with ice and maintain at 4°C for the duration of the sampling and transportation period. Do not allow samples to freeze. Describe and record the following properties of the sample: basic soil type (e.g., sand, gravel, and clay), structure, texture, sorting, grain size, and grain shape, degree of saturation, color, odor, staining, and presence of foreign material.
6. After sampling is completed, the sampling location will be marked by a wooden stake and flagging and/or wire flag. The station number and date of sampling will be written on the stake using a permanent marker or other waterproof ink. A properly calibrated GPS unit will be used to mark the sample location.
7. Decontaminate the sampling equipment using a biodegradable detergent or other detergent as approved by the Environmental Inspector and move to the next sampling location. Repeat steps 1 through 7 for subsequent sampling locations.
8. Soil samples will be packed and shipped to the laboratory with Chain of Custody Documentation for analyses.

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## 7.2 COMMUNITY AIR MONITORING PLAN (CAMP)

As stated above all field screening of soil and water and air particulate monitoring will be performed in accordance with applicable environmental regulations including the NYSDEC Division of Environmental Remediation DER-10 Technical Guidance for Site Investigation and Remediation and the New York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan (CAMP) (CC#64). Per Certificate Condition 64, if contamination in the ground is detected during overland construction and such contamination is of the kind that will lead to volatilization or off-gassing of such contamination or chemical constituents thereof, the Certificate Holders with the assistance of the Environmental Inspector will implement a Generic CAMP if applicable. All procedures and practices included in the DER-10 Technical Guidance for Site Investigation and Remediation Appendix 1A: NYSDOH Generic Community Air Monitoring Plan will be followed (CC#64).

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## **8.0 DISPOSAL OF WASTE MATERIALS OTHER THAN SOIL**

Numerous types of materials may be included in the soil material excavated along the project route including asphalt, concrete, rock, rail ballast, etc. In general, all non-soil material that is not going to be reused will be disposed of at approved sampling locations in accordance with all NYSDEC rules and regulations. For non-soil excavated material being considered for reuse, the following restrictions and regulations apply.

For material excavated from work areas consisting of recognizable, uncontaminated concrete and concrete products, asphalt pavement, rock, brick and soil (“RU-CARBS”), sampling/testing is not required under NYCRR Part 360. Per Section 363.2.1(h) of Title 6, mixed RU-CARBS can be used in highway ROWS with no volume limitations. Additionally, up to 5,000 cubic yards of Mixed RU-CARBS can be used in residential developments and under pavement. For material excavated from work areas consisting of mixed soil and unrecognizable excavated material including concrete, asphalt, ash, slag, etc., sampling/testing is required in accordance with Section 360.13(e)(3) of Title 6 of the NYCRR. If analysis indicates the mixed soil and unrecognizable excavated material meets the limited-use fill criteria as described in Table 4.1, this material can be used under pavement.

## 9.0 DISPOSAL OF WASTE MATERIALS LOCATIONS – BY TYPE

The following is an example of the disposal location plan that will be utilized for the Project, the final disposal locations will be provided to DPS Staff and NYSDEC prior to the start of construction related activities. Project wide information is presented in the following tables. Segment Specific information is included in Attachment 1. For Segments 1 and 2, there no segment specific information.

**Table 9.1 Acceptable Disposal Locations - Roadways**

Segment	Disposal Location	Max Quantity Capacity	Anticipated Quantity Capacity
1	X		36,939 CY
1	XX		
1	XXX		
2	Y		49,112 CY
2	YY		
2	YYY		
3	Z		

\*Segments 1 & 2 are anticipated to be General Fill and managed as Beneficial Reuse.

\*\*Disposal Locations are subject to change. Currently reviewing locations on the list: [https://www.dec.ny.gov/docs/materials\\_minerals\\_pdf/listregcdprocess.pdf](https://www.dec.ny.gov/docs/materials_minerals_pdf/listregcdprocess.pdf)

\*\*\*Certificate Holder will notify DEC on all material that exceeds the beneficial use determination by filing all proper permitting.

**Table 9.2 Acceptable Disposal Locations – Railroads**

Segment	Disposal Location	Max Quantity Capacity	Anticipated Quantity Capacity
1 & 2	N/A	N/A	N/A
3	Within CP ROW (Wind Row / Broad Cast Spread) See Spoils Management Plan in Attachment 1	3” Lift <sup>1</sup>	3” Lift <sup>1</sup>
4	Within CP ROW (Wind Row / Broad Cast Spread) See Spoils Management Plan in Attachment 1		

\*Segments 1 & 2 are anticipated to be General Fill.

\*\*Disposal Locations are subject to change.

\*\*\*Certificate Holder will notify DEC on all material that exceeds the beneficial use determination by filing all proper permitting.

<sup>1</sup>Wind Row / Broad Cast Spread will not exceed a height of three (3) inches and will only be considered if affects to hydrology, location does not have lack of space, etc.

**Table 9.3 Acceptable Disposal Locations – Known Contaminant Locations**

Segment	Disposal Location	Max Quantity Capacity	Anticipated Quantity Capacity
1 & 2	<a href="https://www.dec.ny.gov/docs/materials_minerals_pdf/listregcdprocess.pdf">https://www.dec.ny.gov/docs/materials_minerals_pdf/listregcdprocess.pdf</a>	N/A	N/A
3			
3			
3			
4			
4			
4			
6			
7			
NYC			

\*Segments 1 & 2 are anticipated to be General Fill.

\*\*Disposal Locations are subject to change.

\*\*\*Certificate Holder will notify DEC on all material that exceeds the beneficial use determination by filing all proper permitting.

<sup>1</sup>Wind Row / Broad Cast Spread will not exceed a height of three (3) inches and will only be considered if affects to hydrology, location does not have lack of space, etc.