GREEN REMEDIATION PRINCIPLES ADDENDUM

for

261 WALTON AVENUE
Bronx, New York
NYSDEC BCP Site No. C203135

Prepared For:

Tuck-It-Away Associates – Deegan, LLC and Walton Owner LLC
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New York, New York 10022

Prepared By:

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Langan Project No. 17061701

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TABLE OF CONTENTS

ATTACHMENTS

1.0 INTRODUCTION

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. (Langan) was retained by Tuck-It-Away Associates - Deegan, LLC and Walton Owner, LLC (collectively the Participant) to prepare this Green Remediation Principles Addendum for the property located at 261 Walton Avenue (Block 2344, Lot 60) in the Mott Haven neighborhood of the Bronx, New York (the site). The Participant was accepted into the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) to investigate and remediate the site pursuant to the NYSDEC Brownfield Cleanup Agreement (BCA) executed on May 3, 2022. The site was assigned BCP Site No. C203135.

The site occupies an area of 27,500 square feet (0.63± acres). The site formerly contained a six-story building with a cellar, a two-story building, and a one-story building, which were occupied by a commercial storage facility. The buildings were demolished between February and May 2023. Portions of the Site remain covered by the former building concrete foundation slabs. An asphalt-paved and gravel-covered parking lot surrounds the former building footprints.

The proposed development will include construction of a mixed-use commercial and residential building with a cellar parking garage. Additional site information and data collected previously by Langan and others is provided in the September 12, 2024 Remedial Action Work Plan (RAWP). NYSDEC approved the RAWP and issued a Decision Document on September 13, 2024.

This addendum specifies procedures to be followed for compliance with NYSDEC Division of Environmental Remediation (DER)-31: Technical Guidance for Green Remediation (DER-31). Green remediation principles and techniques will be implemented, to the extent feasible, in the design, implementation, and site management of the remedy.

2.0 GREEN REMEDIATION PROGRAM

The green and sustainable remediation (GSR) components that will be considered for the selected remedy are as follows:

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term
- Reducing direct and indirect greenhouse gases and other emissions
- Increasing energy efficiency and minimizing use of non-renewable energy
- Conserving and efficiently managing resources and materials
- Reducing waste, increasing recycling, and increasing reuse of materials that would otherwise be considered a waste

- Maximizing habitat value and creating habitat when possible, including maximizing the planning of trees, shrubs, and other carbon dioxide sinks in redevelopment
- Fostering green and healthy communities and working landscapes which balance ecological, economic, and social goals
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development
- Incorporating the GSR principles and techniques to the extent feasible in the future development at this site (i.e., future on-site buildings shall be constructed, at a minimum, to meet the 2020 Energy Conservation Construction Code of New York [or most recent edition] to improve energy efficiency as an element of construction)

To evaluate the remedy with respect to GSR principles as part of the remedial program, a Best Management Practice (BMP) assessment was conducted in accordance with the ASTM Guide for Standard Cleanups, and an environmental footprint analysis was conducted for each remedial alternative using SiteWise™. The results of the environmental footprint analysis are provided in Attachment 1.

BMPs for the project related to these GSR metrics, and BMPs for minimizing community impacts, protecting habitats and natural and cultural resources, and promoting environmental justice, will be incorporated into the remedial program, as appropriate. The project design specifications will include detailed requirements, including implementation of the BMPs described in Section 2.2. A BMP assessment and an environmental footprint analysis will also be conducted at the completion of the remedy. As practicable, water consumption, greenhouse gas emissions, renewable and non-renewable energy use, waste reduction, and material use will be estimated at the end of the remediation phase. Progress with respect to GSR metrics will be tracked during implementation of the remedial action and reported in the Final Engineering Report (FER).

A climate screening assessment was conducted for the site which concluded that the site is vulnerable to storm surge, precipitation, temperature and sea level rise; however, the selected remedy will reduce these vulnerabilities and mitigate the effects of climate change. The climate screening checklist is provided in Attachment 2.

This addendum to the RAWP evaluates applicable remedial action alternatives, their associated costs, and the recommended and preferred Track 1 remedy. The remedy described in the RAWP is consistent with the procedures defined in NYSDEC DER Program Policy: Technical Guidance for Site Investigation and Remediation (DER-10) and complies with applicable federal, state, and local laws, regulations, and requirements.

2.1 Green and Sustainable Remediation (Including Climate Resiliency)

To assess potential remedial alternatives with respect to GSR principles, an environmental footprint analysis was conducted for each remedial alternative using SiteWise™. The environmental footprint analyses assess the environmental footprint at each stage of remediation (site preparation, excavation and in-situ containment [if applicable], restoration, and site management). The following metrics were quantified:

- Greenhouse Gas Emissions
- Total Energy Used
- Water Consumption
- Electrical Usage
- Total Nitrogen Oxides (NOx) Emissions
- Total Sulphur Oxides (SOx) Emissions
- Total Particulate Matter Emissions (specifically PM10)

Alternative I, the Track 1 remedy, would produce 1.7 times more greenhouse gas emissions, 1.3 times more SOX emissions, 1.3 times more NOx emissions, and 1.3 times more PM10 emissions than Alternative II (Track 4). Alternative I would use 1.6 times more total energy, 1.9 times more water, and 1.1 times more electricity than Alternative II.

Alternative I would achieve the Title 6 of the New York Codes, Rules and Regulations (6 NYCRR) Part 375 Unrestricted Use (UU) Soil Cleanup Objectives (SCO) and remediate all on-site contamination, while Alternative II would consist of removing contaminated soil exceeding Part 375 Restricted Use Restricted-Residential (RRU) SCOs to depths of down to at least 2 feet below grade surface (bgs). Soil exceeding RRU SCOs would remain below the remediation depth and would be managed using Engineering and Institutional Controls (ECs and ICs) according to a Site Management Plan.

The selected Track I remedy (Alternative I) provides a greater level of effectiveness in protecting public health and the environment as no contamination would remain in place following remediation. Although Alternative II would result in a lower environmental footprint, GSR cannot be used to justify minimizing the cleanup to Alternative II given that Alternative I would be in the best interest of the stakeholders involved, as discussed in the ASTM's Standard Guide for Greener Cleanups – ASTM E2893; however, BMPs would be implemented to reduce the overall footprint of the project.

Environmental footprint summaries for each alternative are provided in Attachment 1. GSR measures would be implemented per DER-31 under both alternatives.

2.2 Green Remediation Principals and Best Management Practices

The NYSDEC DER-31 Green Remediation Policy requires that green remediation concepts and techniques be considered during all stages of the remedial program, with the goal of improving the sustainability of the cleanup and summarizing the net environmental benefit of any implemented green technology.

Green remediation principles and techniques will be implemented to the extent feasible in the remediation phase of the remedy per DER-31. The green remediation components that will be evaluated are as follows:

- Waste Generation
- Energy Usage
- Emissions
- Water Usage
- Land and/or Ecosystems

The remedy will include the implementation of several BMPs related to these green remediation components. The BMPs are outlined below.

Waste Generation

Waste generation considers the management of waste associated with remedial activities and any waste reduction projects including, but not limited to, material reuse and recycling. Several waste streams will be generated during implementation of the remedy (e.g., dewatering fluids, soil, polyethylene sheets used for stockpile coverage and separating types of contamination, nitrile gloves for endpoint sampling, disposable sample ware, acetate liners from drilling operations, tubing and buckets from groundwater performance monitoring, and decontamination materials). When possible, an effort will be made to minimize consumption/generation of such materials. If possible, decontamination and reuse of applicable materials will be considered. Electronic methods of data collection (e.g., tablets) will also be used to reduce paper consumption when possible.

Electrical Energy Use

Energy usage considers the electricity usage needed for remediation activities. Energy will be required for charging equipment (e.g., photoionization detectors [PID], air monitoring equipment,

and groundwater sampling equipment). Battery-powered equipment will be turned off when not in use to limit charging activities.

Emissions

Emissions tracking considers fuel usage for transportation of personnel to and from the site, trucks used for export of contaminated material or import of backfill material, equipment and laboratory sample couriers, and construction equipment.

To reduce fuel usage, trucks and heavy machinery operators will be encouraged to reduce idling time and shut down vehicles or equipment when not in use. The contractor will also be encouraged to perform routine, on-time maintenance such as oil changes to improve fuel efficiency.

When possible, personnel will be encouraged to take public transport and equipment/sample deliveries and pickups will be consolidated to reduce transport needs.

Water Usage

Water usage considers sources of water for tasks such as decontamination, irrigation, etc. The public water supply will be used when water is required for decontamination activities or dust suppression. This will be required for effective implementation of the remedy and the protection of human health. Water will only be consumed when necessary, and consumption will be in accordance with local regulations.

Land and/or Ecosystems

The site is within a heavily urbanized area and no ecosystems will be disturbed during construction.

Generally, although Alternative II will result in a lower environmental footprint, GSR cannot be used to justify minimizing the cleanup to Alternative II given that Alternative I would be in the best interest of the stakeholders involved, as discussed in the ASTM guide for greener cleanups. However, BMPs will be implemented to reduce the overall footprint of the project.

Considerations when selecting Alternative I include enhanced protection of human health and the environment, more sustainable land use potential over time, and long-term cost savings (i.e., the absence of ECs and ICs). Although the proposed Alternative I remedy will produce more GHG emissions, produce more waste, use more energy, and use more water as compared to Alternative II, Alternative I provides a greater level of effectiveness in protecting the long-term public health and the environment.

3.0 REPORTING

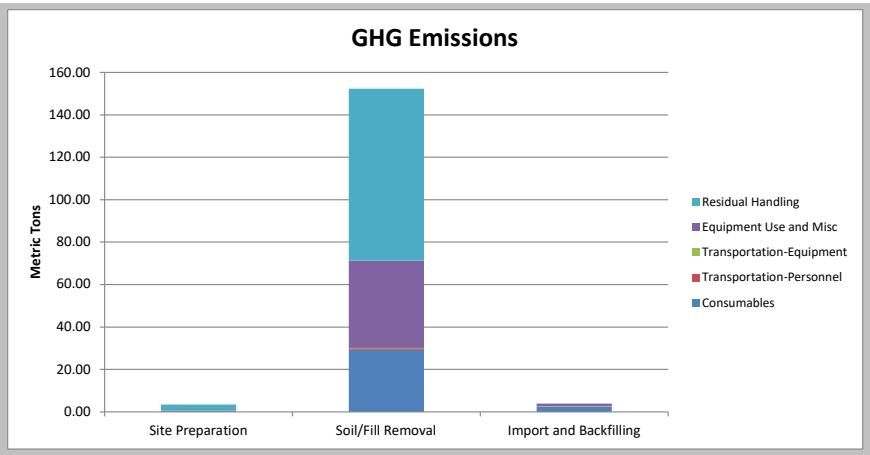
An FER, prepared in accordance with DER-10, will be submitted to the NYSDEC after RAWP implementation. The FER will document that the remedial work required under the RAWP has been completed and performed in compliance with this addendum. The FER will include a discussion of the green remediation practices/technologies employed throughout the remedial program. A footprint analysis using a DER accepted model, and any tracking methods used through the construction, including restoration activities, will be included. Before approval of an FER and issuance of a COC, all project reports will be submitted in digital form on electronic media (i.e., PDF).

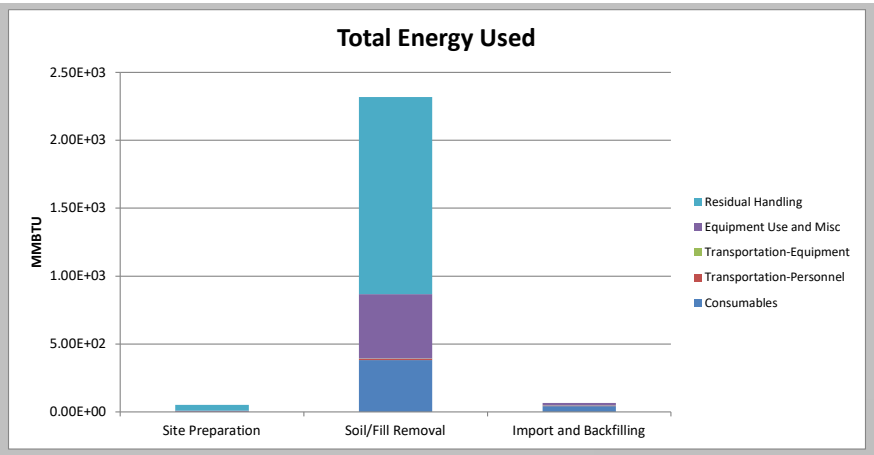
Attachment 1
Environmental Footprint Analysis

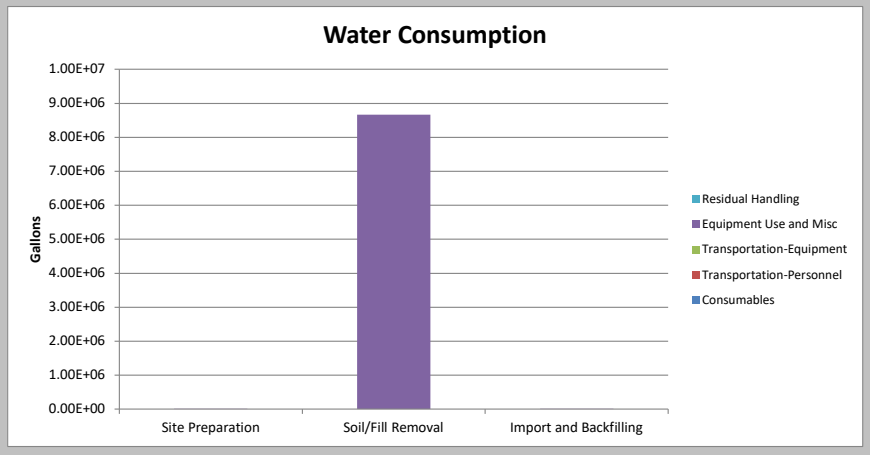
261 Walton Avenue - Environmental Footprint Summary
Alternative I - Track I

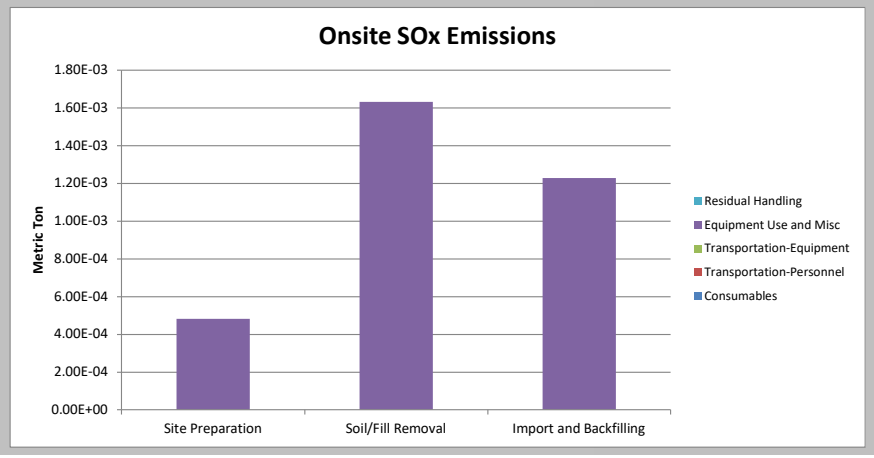
Phase	Activities	GHG Emissions	Total Energy Used	Water Consumption	Electricity Usage	Onsite NOx Emissions	Onsite SOx Emissions	Onsite PM10 Emissions	Total NOx Emissions	Total SOx Emissions	Total PM10 Emissions	Accident Risk Fatality	Accident Risk Injury
		metric ton	MMBTU	gallons	MWH	metric ton	metric ton	metric ton	metric ton	metric ton	metric ton		
Site Preparation	Consumables	0.08	4.1E-01	NA	NA	NA	NA	NA	1.5E-04	3.1E-04	6.2E-05	NA	NA
	Transportation-Personnel	0.12	1.5E+00	NA	NA	NA	NA	NA	3.4E-05	6.1E-05	5.5E-06	2.0E-06	1.7E-04
	Transportation-Equipment	0.00	0.0E+00	NA	NA	NA	NA	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Equipment Use and Misc	0.35	7.3E+00	3.0E+03	0.0E+00	1.9E-03	4.8E-04	2.2E-04	2.3E-03	6.6E-04	2.9E-04	2.7E-06	1.2E-03
	Residual Handling	2.86	4.2E+01	NA	NA	0.0E+00	0.0E+00	0.0E+00	5.2E-03	2.5E-03	1.3E-02	5.1E-06	4.1E-04
	Sub-Total	3.41	5.14E+01	3.00E+03	0.00E+00	1.92E-03	4.83E-04	2.20E-04	7.67E-03	3.49E-03	1.35E-02	9.78E-06	1.74E-03
Soil/Fill Removal	Consumables	29.15	3.8E+02	NA	NA	NA	NA	NA	8.7E-02	1.5E-01	2.9E-02	NA	NA
	Transportation-Personnel	0.79	9.6E+00	NA	NA	NA	NA	NA	1.8E-04	5.2E-04	3.5E-05	9.3E-06	8.1E-04
	Transportation-Equipment	0.23	2.9E+00	NA	NA	NA	NA	NA	7.1E-05	1.3E-06	6.3E-06	6.2E-07	5.0E-05
	Equipment Use and Misc	41.15	4.7E+02	8.7E+06	3.2E-01	6.9E-03	1.6E-03	1.0E-03	1.8E-01	1.4E-01	1.7E-02	8.3E-06	6.9E-03
	Residual Handling	80.95	1.5E+03	NA	NA	0.0E+00	0.0E+00	0.0E+00	3.7E-01	2.0E-01	1.0E+00	5.1E-05	4.1E-03
	Sub-Total	152.26	2.32E+03	8.67E+06	3.19E-01	6.94E-03	1.63E-03	1.04E-03	6.38E-01	4.85E-01	1.09E+00	6.91E-05	1.19E-02
Import and Backfilling	Consumables	2.37	4.2E+01	NA	NA	NA	NA	NA	9.5E-03	1.2E-02	4.7E-03	NA	NA
	Transportation-Personnel	0.20	2.3E+00	NA	NA	NA	NA	NA	2.0E-05	2.5E-04	3.0E-06	6.8E-07	8.4E-05
	Transportation-Equipment	0.07	8.7E-01	NA	NA	NA	NA	NA	2.1E-05	3.7E-07	1.9E-06	1.6E-07	1.3E-05
	Equipment Use and Misc	1.30	2.1E+01	1.4E+04	1.7E+00	4.6E-03	1.2E-03	5.3E-04	5.6E-03	2.2E-03	1.1E-03	9.7E-06	4.8E-03
	Residual Handling	0.00	0.0E+00	NA	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Sub-Total	3.94	6.65E+01	1.45E+04	1.74E+00	4.59E-03	1.23E-03	5.29E-04	1.51E-02	1.43E-02	5.82E-03	1.06E-05	4.92E-03
Total		**1.6E+02**	**2.4E+03**	**8.7E+06**	**2.1E+00**	**1.3E-02**	**3.3E-03**	**1.8E-03**	**6.6E-01**	**5.0E-01**	**1.1E+00**	**8.9E-05**	**1.9E-02**

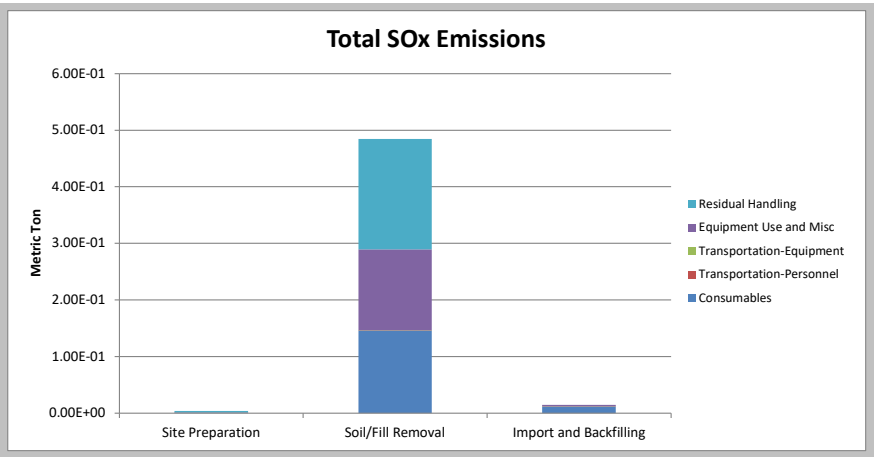
Remedial Alternative Phase	Non-Hazardous Waste Landfill Space	Hazardous Waste Landfill Space	Topsoil Consumption	Costing	Lost Hours - Injury	Percent electricity from renewable sources	Total Cost with Footprint Reduction
	tons	tons	cubic yards	$		%	
Site Preparation	7.2E+01	0.0E+00	0.0E+00	0	1.4E-02	0.0%	
Soil/Fill Removal	5.8E+03	0.0E+00	0.0E+00	0	9.5E-02	24.2%	
Import and Backfilling	0.0E+00	0.0E+00	0.0E+00	0	3.9E-02	24.2%	**$0**
-	0.0E+00	0.0E+00	0.0E+00	0	0.0E+00	0.0%	
Total	**5.8E+03**	**0.0E+00**	**0.0E+00**	**$0**	**1.5E-01**	**12.1%**	

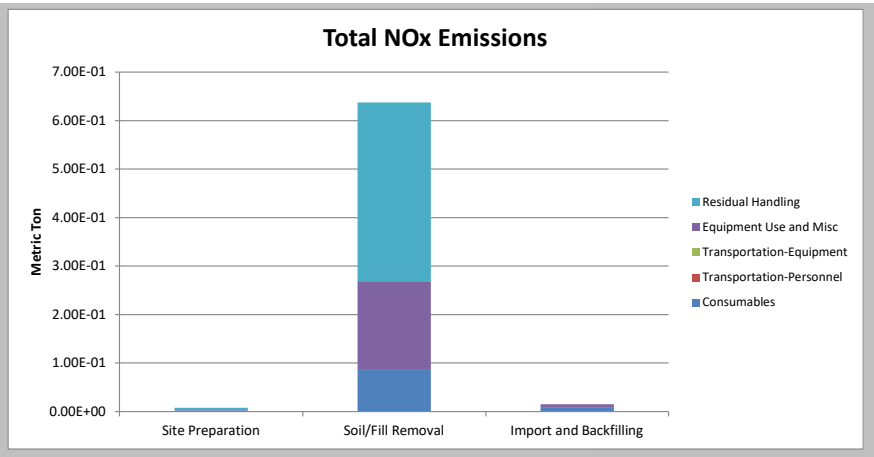

GHG Emissions
160.00
140.00
120.00
100.00
80.00
60.00
40.00
20.00
0.00
Metric Tons
Site Preparation
Soil/Fill Removal
Import and Backfilling
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables

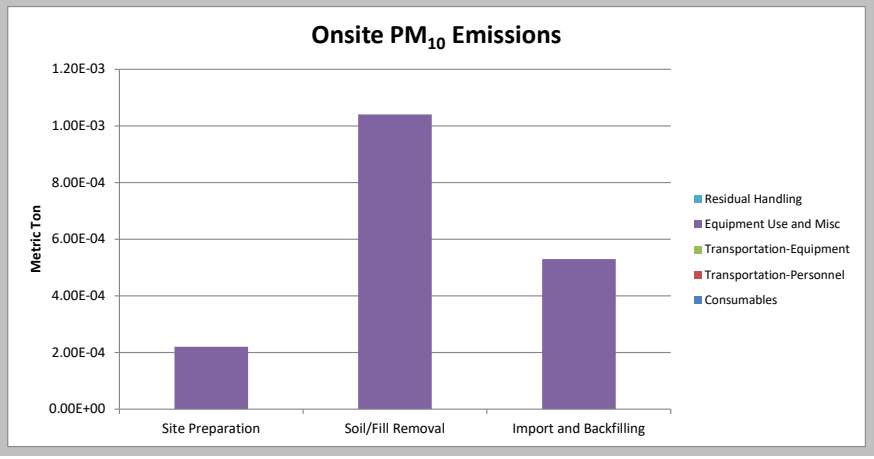

Total Energy Used
2.50E+03
2.00E+03
1.50E+03
1.00E+03
5.00E+02
0.00E+00
MMBTU
Site Preparation
Soil/Fill Removal
Import and Backfilling
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables

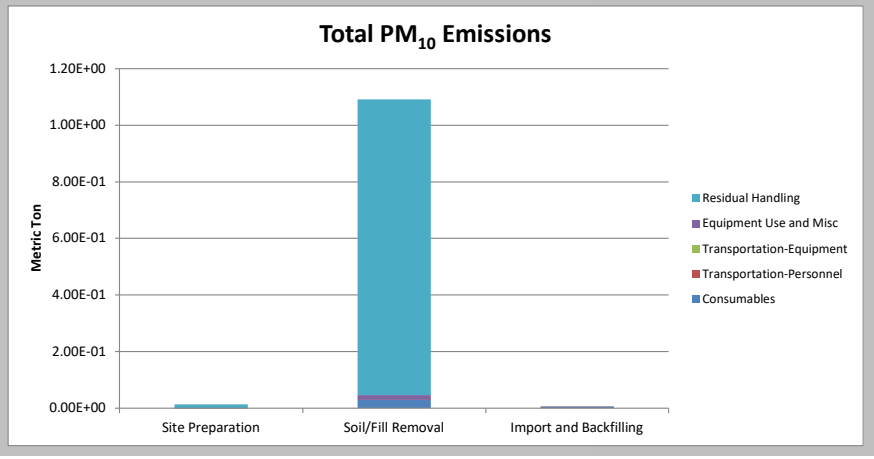

Water Consumption
1.00E+07
9.00E+06
8.00E+06
7.00E+06
6.00E+06
5.00E+06
4.00E+06
3.00E+06
2.00E+06
1.00E+06
0.00E+00
Gallons
Site Preparation
Soil/Fill Removal
Import and Backfilling
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables

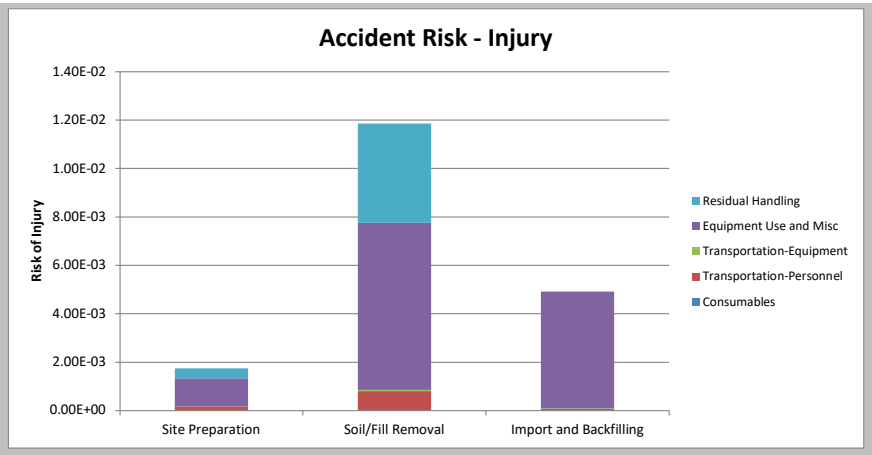

Onsite SOx Emissions
1.80E-03
1.60E-03
1.40E-03
1.20E-03
1.00E-03
8.00E-04
6.00E-04
4.00E-04
2.00E-04
0.00E+00
Metric Ton
Site Preparation
Soil/Fill Removal
Import and Backfilling
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables

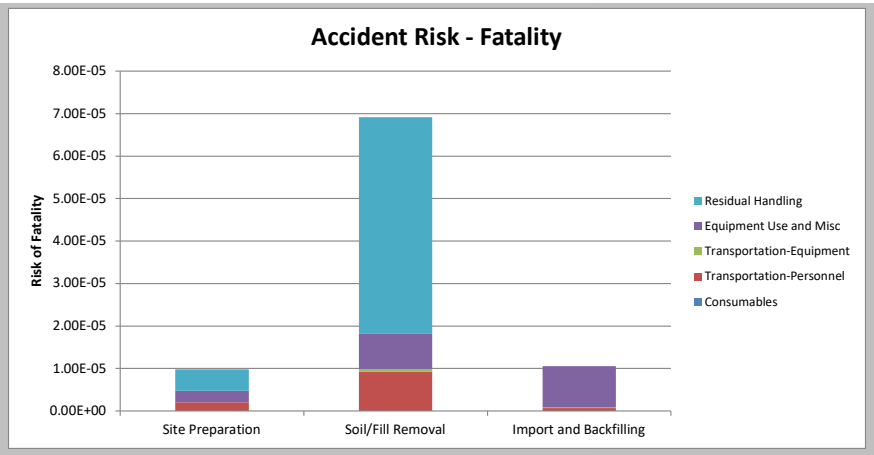

Total SOx Emissions
6.00E-01
5.00E-01
4.00E-01
3.00E-01
2.00E-01
1.00E-01
0.00E+00
Metric Ton
Site Preparation
Soil/Fill Removal
Import and Backfilling
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables

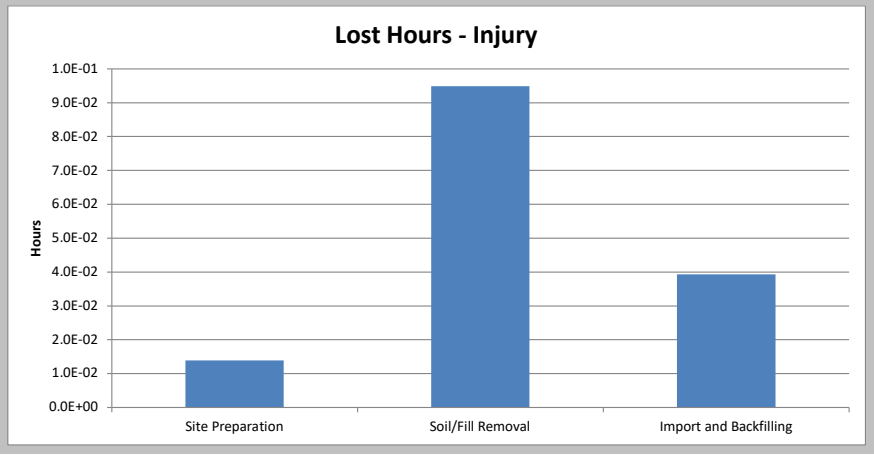

Total NOx Emissions
7.00E-01
6.00E-01
5.00E-01
4.00E-01
3.00E-01
2.00E-01
1.00E-01
0.00E+00
Metric Ton
Site Preparation
Soil/Fill Removal
Import and Backfilling
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables

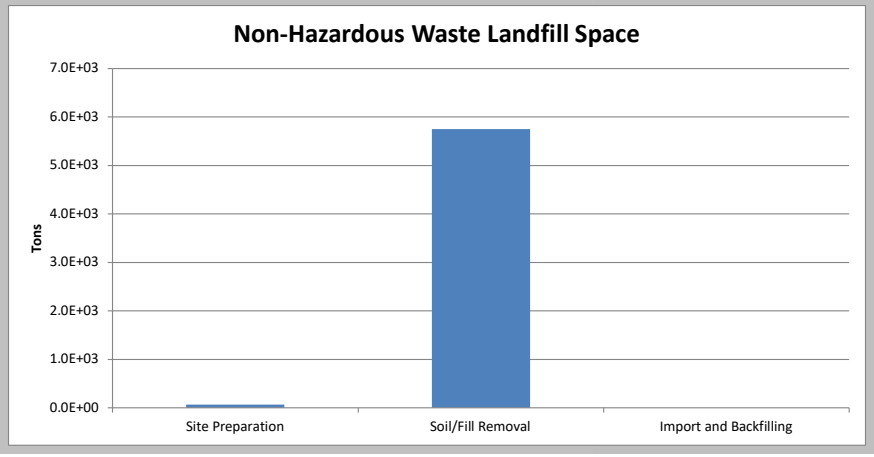

Onsite PM10 Emissions
1.20E-03
1.00E-03
8.00E-04
6.00E-04
4.00E-04
2.00E-04
0.00E+00
Metric Ton
Site Preparation
Soil/Fill Removal
Import and Backfilling
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables


Total PM10 Emissions
1.20E+00
1.00E+00
8.00E-01
6.00E-01
4.00E-01
2.00E-01
0.00E+00
Metric Ton
Site Preparation
Soil/Fill Removal
Import and Backfilling
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables


Accident Risk - Injury
1.40E-02
1.20E-02
1.00E-02
8.00E-03
6.00E-03
4.00E-03
2.00E-03
0.00E+00
Risk of Injury
Site Preparation
Soil/Fill Removal
Import and Backfilling
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables


Accident Risk - Fatality
8.00E-05
7.00E-05
6.00E-05
5.00E-05
4.00E-05
3.00E-05
2.00E-05
1.00E-05
0.00E+00
Risk of Fatality
Site Preparation
Soil/Fill Removal
Import and Backfilling
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables

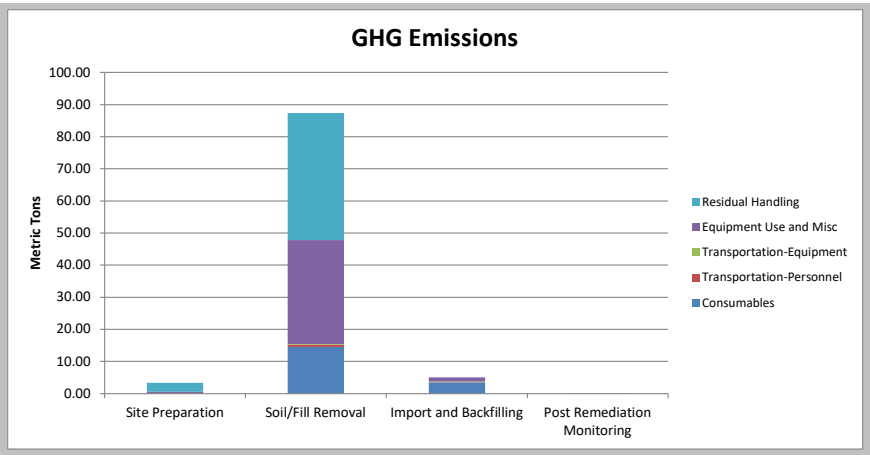

Lost Hours - Injury
1.0E-01
9.0E-02
8.0E-02
7.0E-02
6.0E-02
5.0E-02
4.0E-02
3.0E-02
2.0E-02
1.0E-02
0.0E+00
Hours
Site Preparation
Soil/Fill Removal
Import and Backfilling

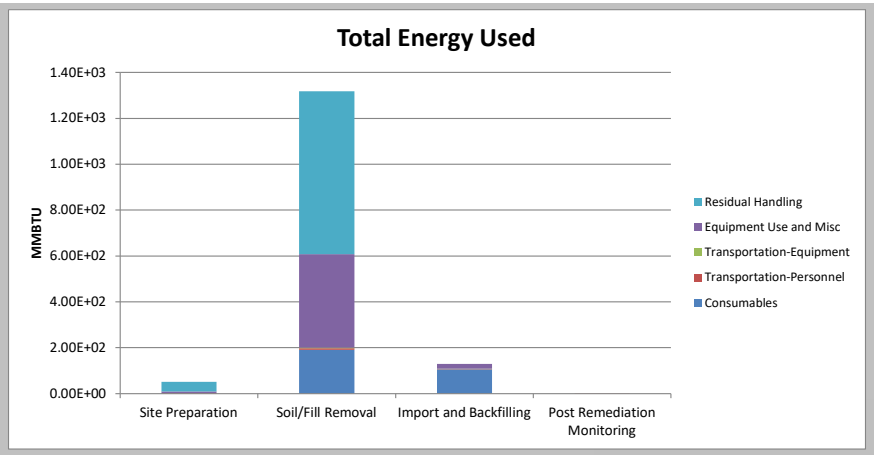

Non-Hazardous Waste Landfill Space
7.0E+03
6.0E+03
5.0E+03
4.0E+03
3.0E+03
2.0E+03
1.0E+03
0.0E+00
Tons
Site Preparation
Soil/Fill Removal
Import and Backfilling

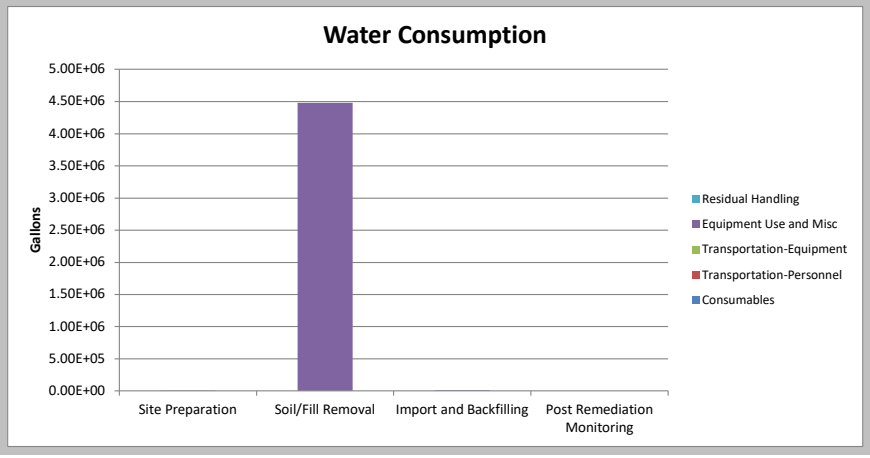
261 Walton Avenue - Environmental Footprint Summary
Alternative II - Track IV

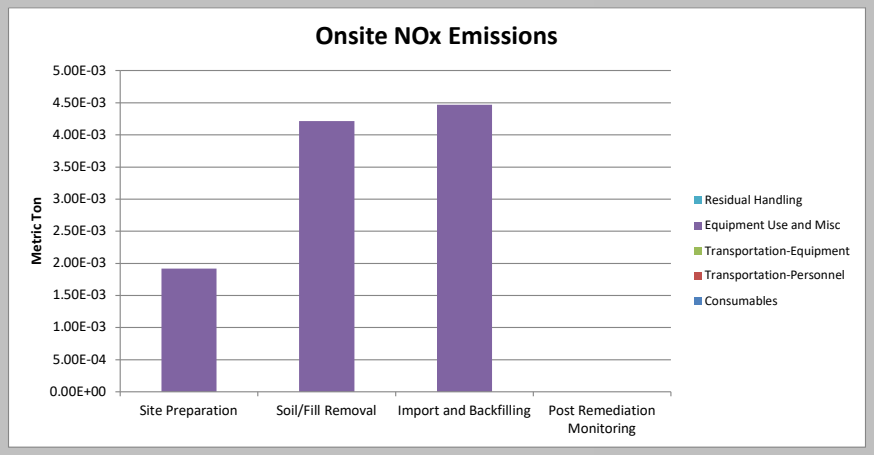
Phase	Activities	GHG Emissions	Total Energy Used	Water Consumption	Electricity Usage	Onsite NOx Emissions	Onsite SOx Emissions	Onsite PM10 Emissions	Total NOx Emissions	Total SOx Emissions	Total PM10 Emissions	Accident Risk Fatality	Accident Risk Injury
		metric ton	MMBTU	gallons	MWH	metric ton	metric ton	metric ton	metric ton	metric ton	metric ton		
Site Preparation	Consumables	0.08	4.1E-01	NA	NA	NA	NA	NA	1.5E-04	3.1E-04	6.2E-05	NA	NA
	Transportation-Personnel	0.12	1.5E+00	NA	NA	NA	NA	NA	3.4E-05	6.1E-05	5.5E-06	2.0E-06	1.7E-04
	Transportation-Equipment	0.00	0.0E+00	NA	NA	NA	NA	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Equipment Use and Misc	0.35	7.3E+00	3.0E+03	0.0E+00	1.9E-03	4.8E-04	2.2E-04	2.3E-03	6.6E-04	2.9E-04	2.7E-06	1.2E-03
	Residual Handling	2.86	4.2E+01	NA	NA	0.0E+00	0.0E+00	0.0E+00	5.2E-03	2.5E-03	1.3E-02	5.1E-06	4.1E-04
	Sub-Total	3.41	5.14E+01	3.00E+03	0.00E+00	1.92E-03	4.83E-04	2.20E-04	7.67E-03	3.49E-03	1.35E-02	9.78E-06	1.74E-03
Soil/Fill Removal	Consumables	14.58	1.9E+02	NA	NA	NA	NA	NA	4.4E-02	7.3E-02	1.5E-02	NA	NA
	Transportation-Personnel	0.63	7.8E+00	NA	NA	NA	NA	NA	1.7E-04	3.2E-04	3.3E-05	8.8E-06	7.4E-04
	Transportation-Equipment	0.18	2.4E+00	NA	NA	NA	NA	NA	5.7E-05	1.0E-06	5.1E-06	3.1E-07	2.5E-05
	Equipment Use and Misc	32.39	4.1E+02	4.5E+06	1.6E-01	4.2E-03	9.9E-04	6.1E-04	1.5E-01	1.1E-01	1.3E-02	5.9E-06	4.4E-03
	Residual Handling	39.60	7.1E+02	NA	NA	0.0E+00	0.0E+00	0.0E+00	1.8E-01	9.6E-02	5.1E-01	2.5E-05	2.0E-03
	Sub-Total	87.38	1.32E+03	4.48E+06	1.60E-01	4.21E-03	9.95E-04	6.06E-04	3.71E-01	2.82E-01	5.39E-01	4.00E-05	7.19E-03
Import and Backfilling	Consumables	3.49	1.1E+02	NA	NA	NA	NA	NA	8.4E-03	1.4E-02	2.8E-03	NA	NA
	Transportation-Personnel	0.12	1.5E+00	NA	NA	NA	NA	NA	1.3E-05	1.6E-04	2.0E-06	4.6E-07	5.5E-05
	Transportation-Equipment	0.13	1.7E+00	NA	NA	NA	NA	NA	4.2E-05	7.4E-07	3.7E-06	3.1E-07	2.5E-05
	Equipment Use and Misc	1.27	2.1E+01	9.3E+03	1.7E+00	4.5E-03	1.2E-03	5.2E-04	5.4E-03	2.1E-03	1.0E-03	8.8E-06	3.7E-03
	Residual Handling	0.00	0.0E+00	NA	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Sub-Total	5.02	1.29E+02	9.29E+03	1.74E+00	4.47E-03	1.20E-03	5.17E-04	1.39E-02	1.59E-02	3.82E-03	9.52E-06	3.75E-03
Post Remediation Monitoring	Consumables	0.00	0.0E+00	NA	NA	NA	NA	NA	0.0E+00	0.0E+00	0.0E+00	NA	NA
	Transportation-Personnel	0.01	1.7E-01	NA	NA	NA	NA	NA	1.3E-06	1.9E-05	2.0E-07	4.4E-08	5.7E-06
	Transportation-Equipment	0.00	0.0E+00	NA	NA	NA	NA	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Equipment Use and Misc	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	9.0E-08	1.1E-04
	Residual Handling	0.00	0.0E+00	NA	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Sub-Total	0.01	1.67E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.32E-06	1.87E-05	1.98E-07	1.34E-07	1.16E-04
Total		**9.6E+01**	**1.5E+03**	**4.5E+06**	**1.9E+00**	**1.1E-02**	**2.7E-03**	**1.3E-03**	**3.9E-01**	**3.0E-01**	**5.6E-01**	**5.9E-05**	**1.3E-02**

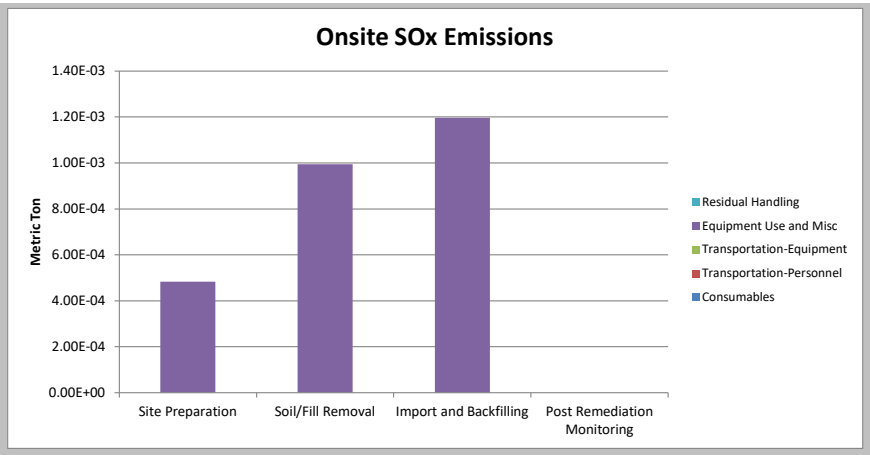
Remedial Alternative Phase	Non-Hazardous Waste Landfill Space	Hazardous Waste Landfill Space	Topsoil Consumption	Costing	Lost Hours - Injury	Percent electricity from renewable sources	Total Cost with Footprint Reduction
	tons	tons	cubic yards	$		%	
Site Preparation	7.2E+01	0.0E+00	0.0E+00	0	1.4E-02	0.0%	$0
Soil/Fill Removal	2.8E+03	0.0E+00	0.0E+00	0	5.8E-02	24.2%	
Import and Backfilling	0.0E+00	0.0E+00	0.0E+00	0	3.0E-02	24.2%	
Post Remediation	0.0E+00	0.0E+00	0.0E+00	0	9.3E-04	0.0%	
Total	**2.9E+03**	**0.0E+00**	**0.0E+00**	**$0**	**1.0E-01**	**12.1%**	

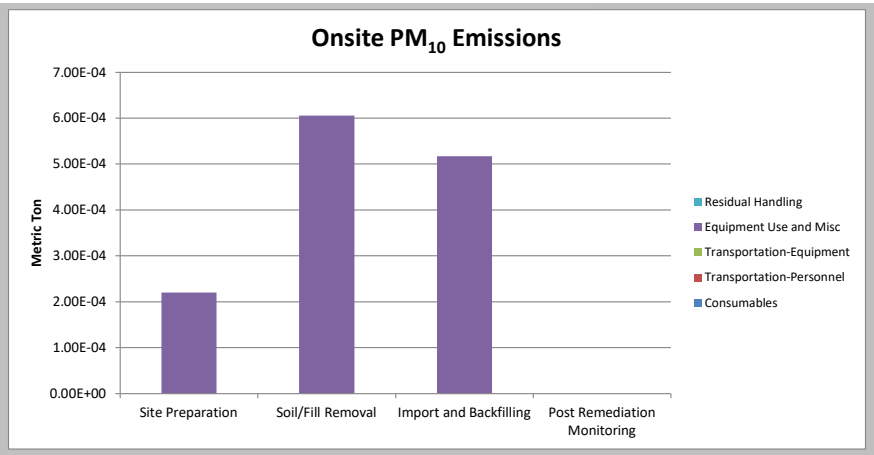

GHG Emissions
Metric Tons
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Site Preparation
Soil/Fill Removal
Import and Backfilling
Post Remediation Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables

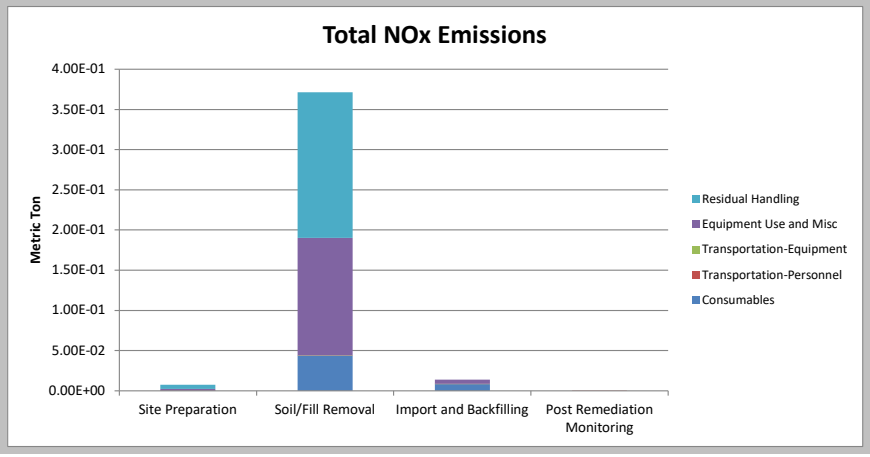

Total Energy Used
MMBTU
1.40E+03
1.20E+03
1.00E+03
8.00E+02
6.00E+02
4.00E+02
2.00E+02
0.00E+00
Site Preparation
Soil/Fill Removal
Import and Backfilling
Post Remediation Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables

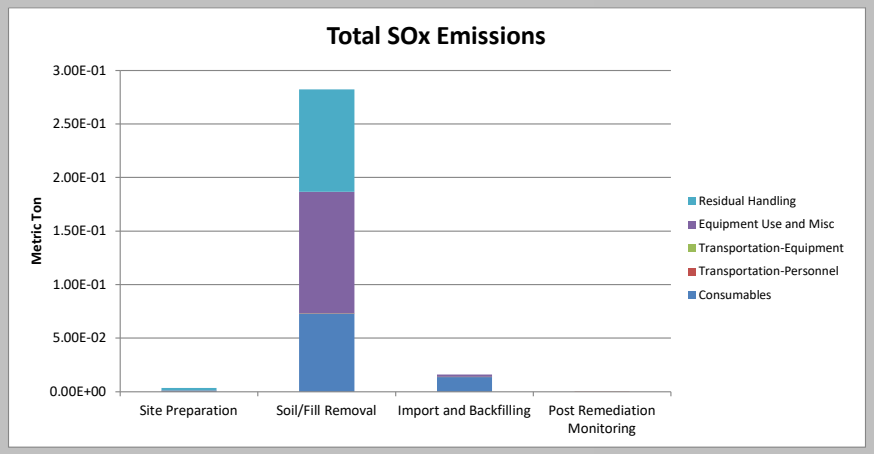

Water Consumption
Gallons
5.00E+06
4.50E+06
4.00E+06
3.50E+06
3.00E+06
2.50E+06
2.00E+06
1.50E+06
1.00E+06
5.00E+05
0.00E+00
Site Preparation
Soil/Fill Removal
Import and Backfilling
Post Remediation Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables

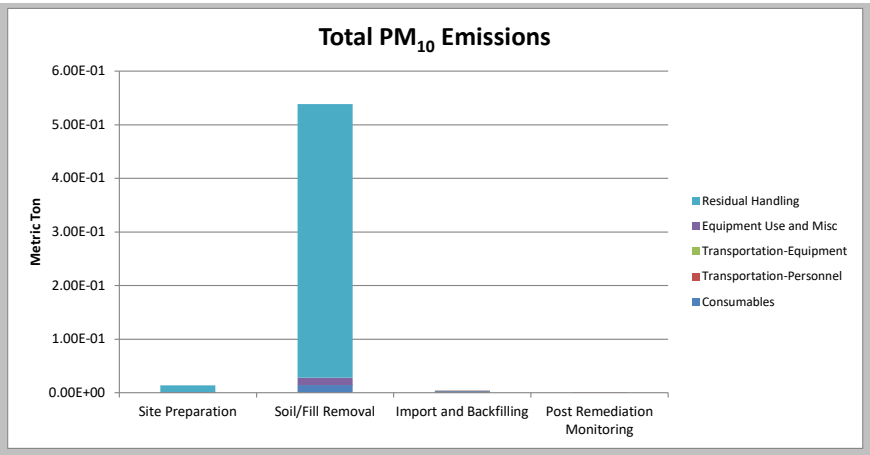

Onsite NOx Emissions
Metric Ton
5.00E-03
4.50E-03
4.00E-03
3.50E-03
3.00E-03
2.50E-03
2.00E-03
1.50E-03
1.00E-03
5.00E-04
0.00E+00
Site Preparation
Soil/Fill Removal
Import and Backfilling
Post Remediation Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables

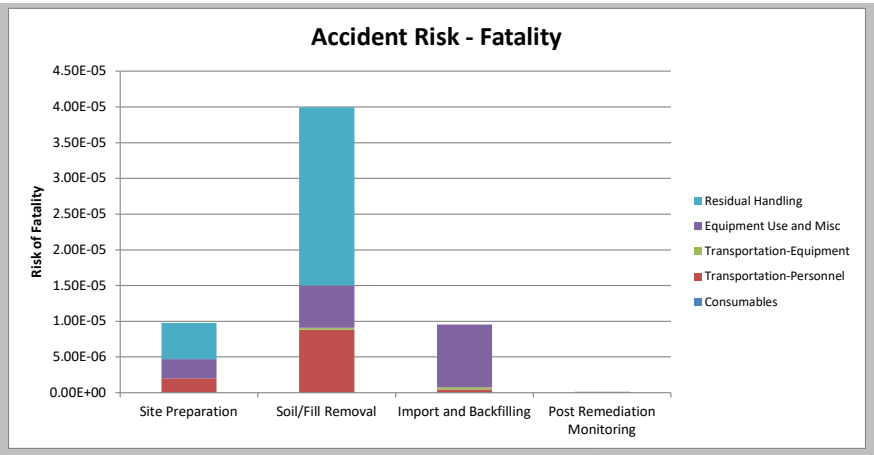

Onsite SOx Emissions
Metric Ton
1.40E-03
1.20E-03
1.00E-03
8.00E-04
6.00E-04
4.00E-04
2.00E-04
0.00E+00
Site Preparation
Soil/Fill Removal
Import and Backfilling
Post Remediation Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables

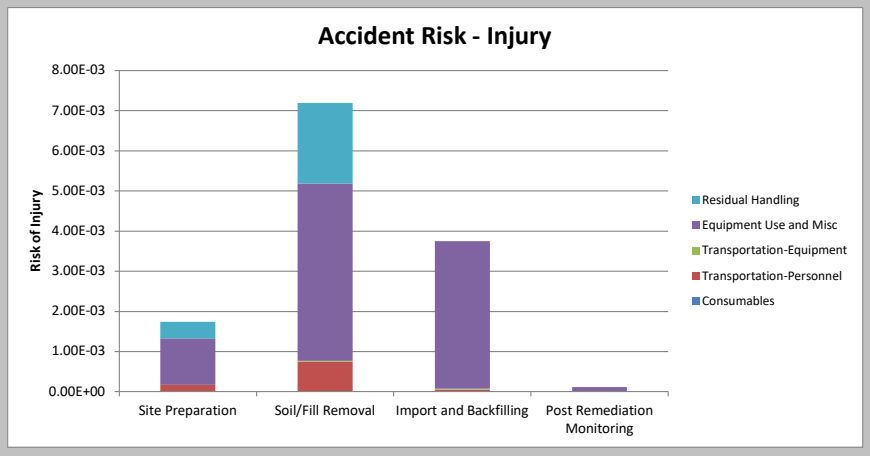

Onsite PM10 Emissions
Metric Ton
7.00E-04
6.00E-04
5.00E-04
4.00E-04
3.00E-04
2.00E-04
1.00E-04
0.00E+00
Site Preparation
Soil/Fill Removal
Import and Backfilling
Post Remediation Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables

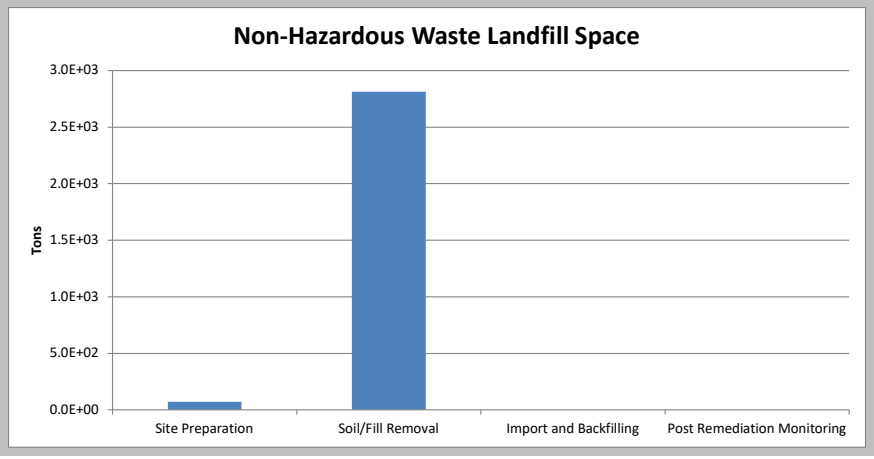

Total NOx Emissions
Metric Ton
4.00E-01
3.50E-01
3.00E-01
2.50E-01
2.00E-01
1.50E-01
1.00E-01
5.00E-02
0.00E+00
Site Preparation
Soil/Fill Removal
Import and Backfilling
Post Remediation Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables

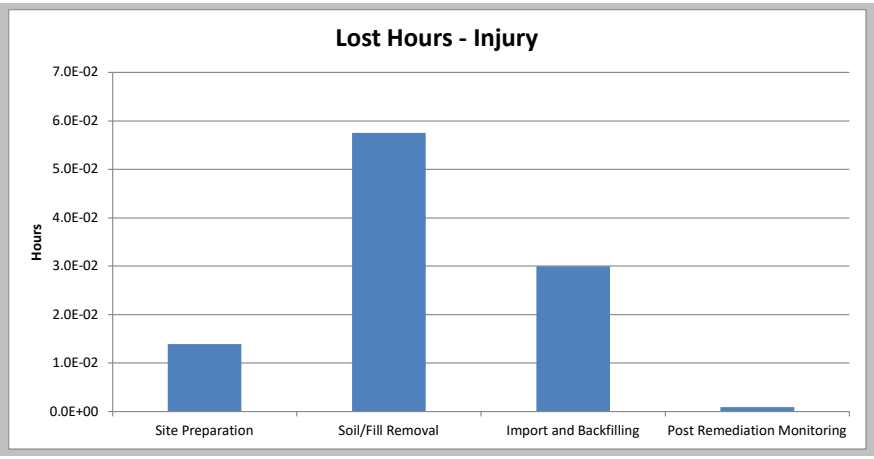

Total SOx Emissions
Metric Ton
3.00E-01
2.50E-01
2.00E-01
1.50E-01
1.00E-01
5.00E-02
0.00E+00
Site Preparation
Soil/Fill Removal
Import and Backfilling
Post Remediation Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables


Total PM10 Emissions
Metric Ton
6.00E-01
5.00E-01
4.00E-01
3.00E-01
2.00E-01
1.00E-01
0.00E+00
Site Preparation
Soil/Fill Removal
Import and Backfilling
Post Remediation Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables


Accident Risk - Fatality
Risk of Fatality
4.50E-05
4.00E-05
3.50E-05
3.00E-05
2.50E-05
2.00E-05
1.50E-05
1.00E-05
5.00E-06
0.00E+00
Site Preparation
Soil/Fill Removal
Import and Backfilling
Post Remediation Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables


Accident Risk - Injury
Risk of Injury
8.00E-03
7.00E-03
6.00E-03
5.00E-03
4.00E-03
3.00E-03
2.00E-03
1.00E-03
0.00E+00
Site Preparation
Soil/Fill Removal
Import and Backfilling
Post Remediation Monitoring
Residual Handling
Equipment Use and Misc
Transportation-Equipment
Transportation-Personnel
Consumables


Non-Hazardous Waste Landfill Space
Tons
3.0E+03
2.5E+03
2.0E+03
1.5E+03
1.0E+03
5.0E+02
0.0E+00
Site Preparation
Soil/Fill Removal
Import and Backfilling
Post Remediation Monitoring


Lost Hours - Injury
Hours
7.0E-02
6.0E-02
5.0E-02
4.0E-02
3.0E-02
2.0E-02
1.0E-02
0.0E+00
Site Preparation
Soil/Fill Removal
Import and Backfilling
Post Remediation Monitoring

Attachment 2
Climate Screening Checklist

Climate Screening Checklist

Background Information

- **Project Manager**: Hasan Ahmed, NYSDEC PM
- **Site Name:** 261 Walton Avenue
- **Site Number**: NYSDEC BCP Site No. C203135
- **Site Location**: 261 Walton Avenue, Bronx NY 10451
- **Site Elevation (average above sea level)**: Approximately 25 feet above mean sea level
- **ClimAID Region**: Region 4 - New York City and Long Island

- **Remedial Stage/Site Classification**: Remedial Design Stage, Class A
- **Contamination - Media Impacted/ Contaminants of Concern:**

  Soil with varying concentrations of semi-volatile organic compounds (SVOCs), metals, pesticides, polychlorinated biphenyls (PCB), and polyfluoroalkyl substances (PFAS), groundwater with varying concentrations of volatile organic compounds (VOC), SVOCs, pesticides, metals, and PFAS, and soil vapor with elevated concentrations of VOCs.
- **Proposed/Current Remedy:**

  A Track 1 remedy which includes excavation, stockpiling, and off-site transport of soil exceeding unrestricted use soil cleanup objectives.
- **What is the predicted timeframe of the remedy? Will components of the remedy still be in place in 10+ years?**

  The remedy will be implemented following the approval of the Remedial Action Work Plan and is anticipated to take 10 months to implement. The remedy will still be in place in 10+ years.

- **Is the site in proximity to any sensitive receptors? (e.g. wetlands, waterbodies, residential properties, hospitals, schools, drinking water supplies, etc.)**

  Yes.

- **Is the site in a disadvantaged community (DAC) or potential environmental justice area (PEJA) (Use DECinfolocator: DECinfo Locator (ny.gov))?**

  ■ **Yes** ☐ **No**

- **If the site is in a DAC or PEJA, will climate impacts be magnified? If yes, list how and why.**

  ☐ **Yes** ■ **No**

- **Should thresholds of concern be lowered to account for magnification of impacts? If yes, indicate how lower thresholds will be used in the screening.**

  ☐ **Yes** ■ **No**

Climate Screening Table*

Potential Climate Hazards	**Relevant to the Site Location** (Y/N/NA)[1]	**Projected Change** (Reference data source/Model)[3]	**Potential to Impact Remedy** (Y/N)	**Is remedy/site already resilient?** (Y/N)[4]
Precipitation	Potentially	N/A – Based on RAPT	N	Y – During construction a site-specific Stormwater Pollution Prevention Plan (SWPPP) will be followed and enhanced measures will be taken before, during and after extreme weather events.
Temperature [2] (Extreme Heat or Cold Weather Impacts)	Potentially	N/A – Based on RAPT	N	Y
Sea Level Rise	Potentially	N/A – Based on NOAA	N	Y

Potential Climate Hazards	**Relevant to the Site Location** (Y/N/NA)[1]	**Projected Change** (Reference data source/Model)[3]	**Potential to Impact Remedy** (Y/N)	**Is remedy/site already resilient?** (Y/N)[4]
Flooding	N	N	N	Y – During construction a site-specific SWPPP will be followed and enhanced measures will be taken before, during and after extreme weather events. In the long term, the redevelopment of the site will include improvement of the site drainage which will help to mitigate the effects of flooding.
Storm Surge	Y	Y	N	Y – During construction a site-specific SWPPP will be followed and enhanced measures will be taken before, during and after extreme weather events.
Wildfire	N	N/A	N/A	N/A
Drought	N	N/A	N/A	N/A
Storm Severity	Y	Y	N	Y – During construction a site-specific SWPPP will be followed and enhanced measures will be taken before, during and after extreme weather events. In the long term, the redevelopment of the site will include improvement of the site drainage which will help to mitigate the effects of flooding.
Landslides	N	N/A	N/A	N/A
Other Hazards:	N	N/A	N/A	N/A

* Links to potential data sources can be found on the following page

[1] If the first column is N --> The rest of the columns will be N/A, the hazard is not applicable to the site.

[2] Extreme Heat: periods of three or more days above 90°F- Extreme Cold: Individual days with minimum temperatures at or below 0 degrees F (NYSERDA ClimAID report)

[3] List the projected change in specific terms or units e.g. inches of rain fall, feet of sea level rise, etc.

[4] If final column is Y, provide reasoning, if the final column is N --> Climate Vulnerability Assessment (CVA) required.

Required Next Steps (If no further action is required, provide justification):

No further actions are required.

Potential Data Sources (not an exhaustive list)- from Superfund Climate Resilience: Vulnerability Assessment | US EPA

NYSERDA ClimAID report- Responding Climate Change in New York State (ClimAID) - NYSERDA

FEMA- National Flood Hazard Layer | FEMA.gov

NOAA- National Storm Surge Risk Maps - Version 3 (noaa.gov)

Department of Agriculture Forest Service Wildfire Risk to Communities
EPA Climate Change Indicators in the United States
EPA Climate Resilience Evaluation & Awareness Tool (CREAT) | U.S. Climate Resilience Toolkit

EPA National Stormwater Calculator
National Integrated Drought Information System U.S. Drought Portal
National Interagency Coordination Center National Interagency Fire Center
National Oceanic and Atmospheric Administration Coastal Services Digital Coast

- Resources to help communities assess coastal hazards, such as the Sea Level Rise Viewer for visualizing community-level impacts of flooding or sea level rise and downloadable LIDAR data National Oceanic and Atmospheric Administration National Centers for Environmental Information website

National Oceanic and Atmospheric Administration Sea Level Trends
National Weather Service Climate Prediction Center
National Weather Service National Hurricane Center
National Weather Service Sea, Lake, and Overland Surges from Hurricanes (SLOSH)
National Weather Service Storm Surge Hazard Maps
U.S. Federal Government Climate Resilience Toolkit: The Climate Explorer
U.S. Army Corps of Engineers Climate Prepardness and Resilience
U.S. Geological Survey Coastal Change Hazards Portal
U.S. Geological Survey Landslide Hazards Program
U.S. Geological Survey National Ground-water Monitoring Network Data Portal
U.S. Geological Survey National Climate Change Viewer
U.S. Geological Survey National Water Dashboard
U.S. Geological Survey StreamStats
NYS Department of State- Assess | Department of State (ny.gov)

NYSERDA NY Costal Floodplain Mapper- Home Page (ny.gov)

NYSDEC Costal Erosion Hazards- Coastal Areas Regulated By The CEHA Permit Program - NYDEC

NYSDOH Heat Index- health.ny.gov/environmental/weather/vulnerability_index/county_maps.htm