

#### Full Environmental Assessment Form Part 1 - Project and Setting

#### **Instructions for Completing Part 1**

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1 is accurate and complete.

#### A. Project and Applicant/Sponsor Information.

Name of Action or Project:			
MSE Berm Modification			
Project Location (describe, and attach a general location map):			
209 Partition Street Extension, Renesselaer, NY 12144			
Brief Description of Proposed Action (include purpose or need):			
The Dunn Mine and C&D Facility is an existing mine and construction and demolition would like to obtain approval from NYSDEC to modify the footprint to incorporate a make. The berm will increase the setback distance from the north property line and will which will provide visual screening from landfill operations for the adjacent property, not increase the maximum permitted elevation of the site above that which is already result of this project.	echanically stabilized earthen (N Il be higher in elevation than the The proposed revision will decre	MSE) berm on the north side of the current permitted berm elevation ease the total waste footprint and will	
Name of Applicant/Sponsor:	Telephone: (518) 65	0-6106	
S.A Dunn & Company, LLC			
	E-Mail:		
Address: 209 Partition Street Extension			
City/PO: Rensselaer	State:	Zip Code:	
Project Contact (if not same as sponsor; give name and title/role):	Telephone: (518) 65	Telephone: (518) 650-6106	
Curt Taylor, Region Engineer	E-Mail: Curtis.Taylor	@wasteconnections.com	
Address: 209 Partition Street Extension			
City/PO:	State:	Zip Code:	
Rensselaer	NY	12144	
Property Owner (if not same as sponsor):	Telephone:		
	E-Mail:	E-Mail:	
Address:	•	.,	
City/PO:	State;	Zip Code:	

#### B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)			
Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)	
a. City Counsel, Town Board, ☐ Yes ✓ No or Village Board of Trustees			
b. City, Town or Village ☐Yes ☑No Planning Board or Commission			
c. City, Town or ☐Yes ☑No Village Zoning Board of Appeals			
d. Other local agencies ☐Yes ☑No			
e. County agencies			
f. Regional agencies Yes No			
g. State agencies  ✓Yes□No	NYSDEC- NYSDEC Part 360 Permit, MSGP, Mining Permit	January 2022	
h, Federal agencies ☐Yes ☑No			
<ul> <li>i. Coastal Resources.</li> <li>i. Is the project site within a Coastal Area, o</li> </ul>	r the waterfront area of a Designated Inland W	/aterway?	∐Yes <b>Z</b> No
<ul><li>ii. Is the project site located in a community</li><li>iii. Is the project site within a Coastal Erosion</li></ul>		tion Program?	✓ Yes□No □ Yes☑No
C. Planning and Zoning			
C.1. Planning and zoning actions.			
Will administrative or legislative adoption, or ar only approval(s) which must be granted to enable If Yes, complete sections C, F and G.  If No, proceed to question C.2 and complete sections C.2.		-	∐Yes <b>⊠</b> No
C.2. Adopted land use plans.		***	
a. Do any municipally- adopted (city, town, vill where the proposed action would be located?	age or county) comprehensive land use plan(s	) include the site	□Yes <b>Z</b> No
If Yes, does the comprehensive plan include spe would be located?	cific recommendations for the site where the p	proposed action	□Yes□No
b. Is the site of the proposed action within any lost Brownfield Opportunity Area (BOA); designs or other?)  If Yes, identify the plan(s): Remediaton Sites:442042	ocal or regional special planning district (for e ated State or Federal heritage area; watershed		<b>∠</b> Yes□No
c. Is the proposed action located wholly or parti or an adopted municipal farmland protection If Yes, identify the plan(s):		ipal open space plan,	□Yes ✓ No

C.3. Zoning	
a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. If Yes, what is the zoning classification(s) including any applicable overlay district?  Industrial (I-2)	<b>Z</b> Yes□No
b. Is the use permitted or allowed by a special or conditional use permit?	<b>Z</b> Yes□No
c. Is a zoning change requested as part of the proposed action?  If Yes,  i. What is the proposed new zoning for the site?	□Yes☑No
C.4. Existing community services.	
a. In what school district is the project site located? Rensselaer/North Greenbush	
b. What police or other public protection forces serve the project site?  Rensselaer/North Greenbush	
c. Which fire protection and emergency medical services serve the project site? Rensselaer/North Greenbush	
d. What parks serve the project site? This project does not create any demand for park use.	
D. Project Details	
D.1. Proposed and Potential Development	
a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixe components)? The general nature of the proposed action is to incorporate a mechanically stabilized earthen (MS side of the site.	
b. a. Total acreage of the site of the proposed action?  b. Total acreage to be physically disturbed?  c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor?  5.2 acres  90.4 acres	
c. Is the proposed action an expansion of an existing project or use?  i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles square feet)? % Units:	☐ Yes  No s, housing units,
d. Is the proposed action a subdivision, or does it include a subdivision?  If Yes,  i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)	□Yes <b>☑</b> No
<ul><li>ii. Is a cluster/conservation layout proposed?</li><li>iii. Number of lots proposed?</li><li>iv. Minimum and maximum proposed lot sizes? Minimum Maximum</li></ul>	∐Yes ∏No
e. Will the proposed action be constructed in multiple phases?  i. If No, anticipated period of construction: months  ii. If Yes:  • Total number of phases anticipated • Anticipated commencement date of phase 1 (including demolition) month year  • Anticipated completion date of final phase month year  • Generally describe connections or relationships among phases, including any contingencies where progredetermine timing or duration of future phases:	¥Yes□No  ess of one phase may
Initial construction of the MSE Berm will begin after construction of Phases 10A, 10B, 10C, 9, and 8A with the installation of Phase and will be completed during construction of Phase 7B during the following construction season.	8B of the C&D Facility

	ct include new resid				☐Yes <b>Z</b> No
If Yes, show nun	nbers of units propos		enet == 11		
	One Family	Two Family	Three Family	Multiple Family (four or more)	
Initial Phase					
At completion					
of all phases	<del> </del>				
g. Does the propo	osed action include 1	new non-residenti	al construction (inclu	iding expansions)?	□Yes No
If Yes,	7000 0000000				
i. Total number	of structures				
ii. Dimensions (	in feet) of largest pr	oposed structure:	height;	width; andlength square feet	
44 1 199					
				I result in the impoundment of any	□Yes <b>Z</b> No
	s creation of a water	r supply, reservoir	, pond, lake, waste la	agoon or other storage?	
If Yes,	Dwn.	المعرفة المسالة المثالة والمرا	Deele will be avance	to the average expression containment It is a	t an han armahanat
i. Purpose of the	impoundment: Fig.	200800 NORTH ITHIIITAUC	on Basin will be excava	ted to provide stormwater containment. It is r  Ground water Surface water stream	ot an impoundment.
i. II a water mip	ounament, the princ	npai source of the	water:	☐ Ground water ☐ Surface water sucar	msomer specify.
iii. If other than v	vater, identify the ty	be of impounded/	contained liquids and	d their source.	
iv. Approximate	size of the proposed	l impoundment.	Volume:	million gallons; surface area:height;length	acres
v. Dimensions o	f the proposed dam	or impounding str	ructure:	_ height; length	
vi. Construction	method/materials for	or the proposed da	ım or impounding stı	ructure (e.g., earth fill, rock, wood, cond	crete):
D.2. Project Op	arations				
				uring construction, operations, or both?	Yes 7 No
				or foundations where all excavated	I ES INO
materials will r		HOII, gracing or in	Stantanon or demices	of foundations whore an executation	
If Yes:	Olimin Oliology				I
i. What is the pu	upose of the excava	tion or dredging?			
ii. How much ma	terial (including roc	k, earth, sediment	ts, etc.) is proposed to	o be removed from the site?	
<ul> <li>Volume</li> </ul>	(specify tons or cub	oic yards):			
<ul> <li>Over wh</li> </ul>	nat duration of time?	?			
iii. Describe natu	re and characteristic	s of materials to b	e excavated or dred	ged, and plans to use, manage or dispose	e of them.
iv Will there he	onsite dewatering o	er processing of ea	regreted materials?		Yes No
If yes, descri		a brocosme or or	ouvilla materials.		
v. What is the to	tal area to be dredge	ed or excavated?		acres	
vi. What is the m	aximum area to be	worked at any one	time?	acres	
vii. What would b	e the maximum dep	oth of excavation of		fect	
	vation require blast				∐Yes∐No
ix. Summarize sit	e reclamation goals	and plan:			
					<del></del>
				crease in size of, or encroachment	☐Yes <b>✓</b> No
•	ng wetland, waterbo	idy, shoreline, bea	ich or adjacent area?		
If Yes:	zatland or waterhody	v which would be	offeeted (by name, y	vater index number, wetland map numb	er or geographic
				vater index number, wenand map numb	or or geograpmo
doscription,					

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placen alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in so	
	1
iii. Will the proposed action cause or result in disturbance to bottom sediments?  If Yes, describe:	□Yes □No
iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation?	☐ Yes ☐ No
If Yes:	
expected acreage of aquatic vegetation remaining after project completion:	
purpose of proposed removal (e.g. beach clearing, invasive species control, boat access):	
proposed method of plant removal:	
if chemical/herbicide treatment will be used, specify product(s):	
v. Describe any proposed reclamation/mitigation following disturbance:	
c. Will the proposed action use, or create a new demand for water?	☐Yes <b>Z</b> No
If Yes:	
i. Total anticipated water usage/demand per day: gallons/day	<b></b>
ii. Will the proposed action obtain water from an existing public water supply?	□Yes □No
If Yes:	
Name of district or service area:    Description of the content of the conte	
Does the existing public water supply have capacity to serve the proposal?  In the existing public water supply have capacity to serve the proposal?	□Yes□No □Yes□No
• Is the project site in the existing district?	☐ Yes☐ No
Is expansion of the district needed?  Description lines come the project site?	☐ Yes☐ No
<ul> <li>Do existing lines serve the project site?</li> <li>iii. Will line extension within an existing district be necessary to supply the project?</li> </ul>	☐ Yes ☐No
iii. Will little extension within an existing district be necessary to supply the project?  If Yes:	
Describe extensions or capacity expansions proposed to serve this project:	
Source(s) of supply for the district:	
iv. Is a new water supply district or service area proposed to be formed to serve the project site?	☐ Yes ☐No
If, Yes:  • Applicant/sponsor for new district:	
Application submitted or anticipated:	
Proposed source(s) of supply for new district:	
v. If a public water supply will not be used, describe plans to provide water supply for the project:	
vi. If water supply will be from wells (public or private), what is the maximum pumping capacity:	_ gallons/minute,
d. Will the proposed action generate liquid wastes?	☐ Yes <b>Z</b> No
If Yes:	
i. Total anticipated liquid waste generation per day: gallons/day ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe a	
ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe a	all components and
approximate volumes or proportions of each):	<del></del>
iii. Will the proposed action use any existing public wastewater treatment facilities?  If Yes:	□Yes□No
Name of wastewater treatment plant to be used:	
Name of district:	
Does the existing wastewater treatment plant have capacity to serve the project?	□Yes□No
• Is the project site in the existing district?	□Yes □No
• Is expansion of the district needed?	□Yes□No

Do existing sewer lines serve the project site?  Will discuss the project site?	□Yes□No
Will a line extension within an existing district be necessary to serve the project?  **EXACT:**  **EXACT:**  **TEXACT:**  **TEXAC	□Yes□No
If Yes:  • Describe extensions or capacity expansions proposed to serve this project:	
Describe extensions of capacity expansions proposed to serve this project.	
iv. Will a new wastewater (sewage) treatment district be formed to serve the project site?	☐Yes ☐No
If Yes:	
Applicant/sponsor for new district:	
Date application submitted or anticipated:	
What is the receiving water for the wastewater discharge?	
v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including speci receiving water (name and classification if surface discharge or describe subsurface disposal plans):	fying proposed
vi. Describe any plans or designs to capture, recycle or reuse liquid waste:	
vi. Describe any plans or designs to capture, recycle or reuse inquid waste:	
e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point	<b>Z</b> Yes □No
sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point	
source (i.e. sheet flow) during construction or post construction?	
If Yes:	
i. How much impervious surface will the project create in relation to total size of project parcel?	
Square feet or acres (impervious surface) Square feet or acres (parcel size)	
ii. Describe types of new point sources. Swales, culverts, basin outlet pipe	
tt. Describe types of new point sources, outdoor, outdoor	
iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent pr	roperties.
groundwater, on-site surface water or off-site surface waters)?	,
North Infiltration Basin	
If to surface waters, identify receiving water bodies or wetlands:	
Will stormwater runoff flow to adjacent properties?	☐ Yes ✓ No
iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater?	
f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel	Yes No
combustion, waste incineration, or other processes or operations?	LICSMING
If Yes, identify:	
i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)	
ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)	
iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)	
g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit,	□Yes ✓ No
or Federal Clean Air Act Title IV or Title V Permit?	had ~ ** pr. (~ · -
If Yes:	
i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet	□Yes□No
ambient air quality standards for all or some parts of the year)	
ii. In addition to emissions as calculated in the application, the project will generate:	
•Tons/year (short tons) of Carbon Dioxide (CO <sub>2</sub> )	
•Tons/year (short tons) of Nitrous Oxide (N <sub>2</sub> O)	
•Tons/year (short tons) of Perfluorocarbons (PFCs)	
•Tons/year (short tons) of Sulfur Hexafluoride (SF <sub>6</sub> )	
<ul> <li>Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)</li> <li>Tons/year (short tons) of Hazardous Air Pollutants (HAPs)</li> </ul>	
• Tons/year (short tons) of Hazardous Air Politiants (HAPs)	

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)?  If Yes:  i. Estimate methane generation in tons/year (metric):  ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to gene electricity, flaring):	Yes No
i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations?  If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):	_Yes <b>⊿</b> No
j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services?  If Yes:  i. When is the peak traffic expected (Check all that apply):	_Yes <b>.</b> ∕ No
v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing accept.  Are public/private transportation service(s) or facilities available within ½ mile of the proposed site?	Yes No
or other alternative fueled vehicles?	_Yes_No _Yes_No
<ul> <li>k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy?</li> <li>If Yes: <ul> <li>i. Estimate annual electricity demand during operation of the proposed action:</li> </ul> </li> <li>ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/loca other):</li> </ul>	
iii. Will the proposed action require a new, or an upgrade, to an existing substation?	_Yes _No
I. Hours of operation. Answer all items which apply.       ii. During Construction:       iii. During Operations:         • Monday - Friday:       6:30 am - 5:30 pm       • Monday - Friday:       6:30 am - 5:30 pm         • Saturday:       8:00 am - 4:00 pm       • Saturday:       Closed         • Sunday:       Closed       • Sunday:       Closed         • Holidays:       Closed       • Holidays:       Closed	(dally cover operations complete by 6:30 pm)

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction,	☐ Yes <b>Z</b> No
operation, or both? If yes:	
i. Provide details including sources, time of day and duration:	
ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen?	□Yes□No
Describe:	
n. Will the proposed action have outdoor lighting?	∏Yes <b>Z</b> No
If yes:  i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:	
i. Describe source(s), location(s), neight of fixture(s), direction/aim, and proximity to hearest occupied structures:	
ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen?	□Yes□No
Describe:	L res Lino
o. Does the proposed action have the potential to produce odors for more than one hour per day?	☐ Yes <b>Z</b> No
If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures:	
p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons)	☐ Yes <b>Z</b> No
or chemical products 185 gallons in above ground storage or any amount in underground storage? If Yes:	
i. Product(s) to be stored ii. Volume(s) per unit time (e.g., month, year)	
ii. Volume(s) per unit time (e.g., month, year) iii. Generally, describe the proposed storage facilities:	
a. Generally, describe the proposed storage facilities.	
q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides,	☐ Yes <b>☑</b> No
insecticides) during construction or operation? If Yes:	
i. Describe proposed treatment(s):	
Will de the transfer of the tr	
<ul><li>ii. Will the proposed action use Integrated Pest Management Practices?</li><li>r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal</li></ul>	☐ Yes ☐No  ✓ Yes ☐No
of solid waste (excluding hazardous materials)?	E 100 [
If Yes:  i. Describe any solid waste(s) to be generated during construction or operation of the facility:	
• Construction: <1 tons per ~3-6 months/phase (unit of time)	
• Operation: tons per (unit of time)  ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waster	
<ul> <li>ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid wastes</li> <li>Construction:</li> </ul>	•
Operation:	
iii. Proposed disposal methods/facilities for solid waste generated on-site:	
Construction: Waste geosynthetics from construction will be disposed of in on-site C&D landfill	
Operation:	

s. Does the proposed action include construction or mod	ification of a solid waste mar	nagement facility?	✓ Yes 🗌 No
If Yes:			
i. Type of management or handling of waste proposed	for the site (e.g., recycling of	or transfer station, compostin	g, landfill, or
other disposal activities): C&D Disposal			
ii. Anticipated rate of disposal/processing:	1		
• N/A Tons/month, if transfer or other non-		nt, or	
• N/A Tons/hour, if combustion or thermal <i>iii</i> . If landfill, anticipated site life: 17			
	years years		
t. Will the proposed action at the site involve the comme	rcial generation, treatment, s	torage, or disposal of hazard	ous ∐Yes <b>⊿</b> No
waste?			
If Yes:  i. Name(s) of all hazardous wastes or constituents to be	and an arranged to a managed	and at faultien	
i. Iyame(s) of an nazardous wastes of constituents to be	e generated, handled of mana	iged at facility:	
-			<del></del>
ii. Generally describe processes or activities involving l	nazardous wastes or constitue	ents:	-
	<u></u>		
iii. Specify amount to be handled or generatedt			
iv. Describe any proposals for on-site minimization, rec	yeling or reuse of hazardous	constituents:	,
v. Will any hazardous wastes be disposed at an existing	offsite hazardous waste fac	ility?	☐Yes ✓ No
If Yes: provide name and location of facility:			-
If No: describe proposed management of any hazardous	wastes which will not be sen	t to a hazardous waste facilit	y:
There will be no hazardous waste associated with this project			
	·- ·		
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E. Site and Setting of Proposed Action			
E.1. Land uses on and surrounding the project site	V		
a. Existing land uses.	107		
i. Check all uses that occur on, adjoining and near the	project site		
☐ Urban ☑ Industrial ☑ Commercial ☑ Resid		al (non-farm)	
✓ Forest ✓ Agriculture ☐ Aquatic ✓ Other (specify): Cemetery and Schools			
ii. If mix of uses, generally describe:			,
The proposed project site is surrounded by the areas listed above	e as well as schools and a ceme	etery.	1.00
b. Land uses and covertypes on the project site.			
Land use or	Current	Acreage After	Change
Covertype	Acreage	Project Completion	(Acres +/-)
Roads, buildings, and other paved or impervious			
surfaces			
Forested	2	0	-2
Meadows, grasslands or brushlands (non-			
agricultural, including abandoned agricultural)			
Agricultural			
(includes active orchards, field, greenhouse etc.)			
Surface water features			
(lakes, ponds, streams, rivers, etc.)	0.75	2.48(North Infiltration Basin)	1.73
Wetlands (freshwater or tidal)			
Non-vegetated (bare rock, earth or fill)	0.57	0	0.57
	2,57	0	-2.57
• Other			
Describe; Vegated MSE Berm with gravel road	0.0	3.5	3.5

c. Is the project site presently used by members of the community for public recreation?  i. If Yes: explain:	□Yes☑No
d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site?	<b>✓</b> Yes No
If Yes,	
i. Identify Facilities:	
Rennselaer Junior/Senior High School is located approximately 650 feet northeast of the MSE Berm.	
e. Does the project site contain an existing dam?	☐ Yes ✓ No
If Yes:	
i. Dimensions of the dam and impoundment:	
• Dam height: feet	
<ul> <li>Dam length: feet</li> <li>Surface area: acres</li> </ul>	
<ul> <li>Surface area: acres</li> <li>Volume impounded: gallons OR acre-feet</li> </ul>	
ii. Dam's existing hazard classification:	
iii. Provide date and summarize results of last inspection:	
f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility,	<b>✓</b> Yes□No
or does the project site adjoin property which is now, or was at one time, used as a solid waste management facil	
If Yes:	
i. Has the facility been formally closed?	☐ Yes 🗹 No
If yes, cite sources/documentation:	
ii. Describe the location of the project site relative to the boundaries of the solid waste management facility: The proposed project site is an existing C&D Disposal facility.	
iii. Describe any development constraints due to the prior solid waste activities:	
Their are no development constraints.	
g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? If Yes:	∐Yes⊠No
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurre	d.
2. Describe waste(s) flancied unit waste flanagement activities, instituting approximate unit when activities vectors	
h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site?	✓ Yes No
If Yes:  i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site	<b>Z</b> Yes□No
Remediation database? Check all that apply:	<u></u>
☐ Yes - Spills Incidents database Provide DEC ID number(s):	
✓ Yes – Environmental Site Remediation database Provide DEC ID number(s): 442042	
☐ Neither database	
ii. If site has been subject of RCRA corrective activities, describe control measures:	
<ul><li>iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database?</li><li>If yes, provide DEC ID number(s): 442042</li></ul>	<b>✓</b> Yes□No
iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):	
442042-active cleanup proposed for summer 2015 and has been since classified as "C" for complete. Refer to Appendix B and D for information.	additional

Pescribe are used limitations:  Describe any used limitations:  Describe any used limitations:  Will the project affect the institutional or engineering controls in place?  Explain:  E2. Natural Resources On or Near Project Site  a. What is the average depth to bedrock on the project site?  E7 yes, what proportion of the site is comprised of bedrock outcroppings?  B have there bedrock outcroppings on the project site?  C Predominant soil type(s) present on project site?  Prodon Sit Leam  Hoose Gravely Sucy Leam  Book Gravely Su	ν. Is the project site subject to an institutional control limiting property uses?	☐ Yes <b>Z</b> No
Describe any use limitations:  Describe any use limitations:  Will the project affect the institutional or engineering controls in place?  Explain:  Will the project affect the institutional or engineering controls in place?  Explain:  Will the project affect the institutional or engineering controls in place?  Explain:  Explain:  Will the project affect the institutional or engineering controls in place?  Explain:  Describe any use Initiations:  What is the average depth to bedrock on the project site?  Predominant soil type(s) present on project site:  Predominant soil type(s) present on project site soils.  Well Drained:  Soil Position Soils  Moderately Well Drained:  Soil Position Soils Soils  Moderately Well Drained:  Soil Position Soils Soils  Prochy Drained:  Soil Position Soils  Prochy Ordinal Soils  Prochy Drained:  Soil Position Soils  Prochy Ordinal Soils  Prochy Drained:  Soil Position Soils  Prochy Ordinal Soils  Prochy Drained:  Soil Drained:  Soil Prochy Ordinal Soils  Prochy Drained:  Soil Proc	If yes, DEC site ID number:     Describe the type of institutional control (e.g., deed restriction or easement):	
Will the project affect the institutional or engineering controls in place?  Explain:  E.2. Natural Resources On or Near Project Site  a. What is the average depth to bedrock on the project site?  b. Are there bedrock outcroppings on the project site?  If Yes, what proportion of the site is comprised of bedrock outcroppings?  c. Predominant soil type(s) present on project site:  Predom Sittoam  Boole Gravely Sandy Learn	Describe any use limitations:	
E.2. Natural Resources On or Near Project Site  a. What is the average depth to bedrock on the project site?  b. Are there bedrock outcroppings on the project site:  if Yes, what proportion of the site is comprised of bedrock outcroppings?  c. Predominant soil type(s) present on project site:  Fredon Sit Loam  Books Gravelly Sardy Sardy Loam  Books Gravelly Sardy Sardy Loam  Books Gravelly Sardy Sardy Loam  Books Gravelly	Describe any engineering controls:     Will the project affect the institutional or engineering controls in place?	□ Yes <b>☑</b> No
a. What is the average depth to bedrock on the project site?  b. Are there bedrock outcroppings on the project site?  If Yes, what proportion of the site is comprised of bedrock outcroppings?  C. Predominant soil type(s) present on project site:  Fredon Sill Loam  Hoosic Gravelly Sandy Loam  Mindsor Loamy Sand  A. What is the average depth to the water table on the project site? Average:  Daily Well Drained:  Daily Well Drain		
a. What is the average depth to bedrock on the project site?  b. Are there bedrock outcroppings on the project site?  If Yes, what proportion of the site is comprised of bedrock outcroppings?  C. Predominant soil type(s) present on project site:  Fredon Sill Loam  Hoosic Gravelly Sandy Loam  Mindsor Loamy Sand  A. What is the average depth to the water table on the project site? Average:  Daily Well Drained:  Daily Well Drain		· · · · · · · · · · · · · · · · · · ·
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c. Predominant soil type(s) present on project site:  Predon Sit Leam 23.9 % Hoosis Gravelly Sandy Loam 63.1 %  d. What is the average depth to the water table on the project site? Average:  e. Drainage status of project site soils:  Well Drained:  Oralinage status of project site soils:  Well Drained:  Drainage status of project site soils:  Proofy Drained:  Drainage status of project site soils:  Note soils:  Drainage status of project site soils:  Proofy Drained:  Drainage status of project site soils:  Drainage status of project site soils:  Proofy Drained:  Drainage status of project site soils:  Drainage status of project site soils: Drainage status of project site soils: Drainage status of project site soils: Drainage status of project site soils: Drainage status of project site soils: Drainage status of project site soils: Drainage s		Ves ZNo
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e. Drainage status of project site soils:  Mell Drained:		
Moderately Well Drained:		
f. Approximate proportion of proposed action site with slopes:		
g. Are there any unique geologic features on the project site?  If Yes, describe:    Yes  No		
g. Are there any unique geologic features on the project site?    Yes   No		
h. Surface water features.  i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)?  ii. Do any wetlands or other waterbodies adjoin the project site?  iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency?  iv. For each identified regulated wetland and waterbody on the project site, provide the following information:  Streams: Name Quackenderry Crock Classification  Lakes or Ponds: Name  Wetlands: Name  Wetlands: Name  Wetlands No. (if regulated by DEC)  v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies?  If yes, name of impaired water body/bodies and basis for listing as impaired:  i. Is the project site in a designated Floodway?  j. Is the project site in the 100-year Floodplain?  k. Is the project site in the 500-year Floodplain?  Nes No  I. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer?  If yes No  I. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer?		
i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)?  ii. Do any wetlands or other waterbodies adjoin the project site?  iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency?  iv. For each identified regulated wetland and waterbody on the project site, provide the following information:  • Streams: Name Quackenderry Creek Classification  • Lakes or Ponds: Name Classification  • Wetlands: Name Approximate Size  • Wetland No. (if regulated by DEC)  v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies?  If yes, name of impaired water body/bodies and basis for listing as impaired:  i. Is the project site in a designated Floodway?  j. Is the project site in the 100-year Floodplain?  k. Is the project site in the 500-year Floodplain?  l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer?    Yes   No		☐ Yes  No
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ii. Do any wetlands or other waterbodies adjoin the project site?  If Yes to either i or ii, continue. If No, skip to E.2.i.  iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency?  iv. For each identified regulated wetland and waterbody on the project site, provide the following information:  Streams: Name Quackenderry Creek Classification  Lakes or Ponds: Name Classification  Wetlands: Name Approximate Size  Wetland No. (if regulated by DEC)  v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies?  If yes, name of impaired water body/bodies and basis for listing as impaired:  i. Is the project site in a designated Floodway?	i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers,	□Yes☑No
iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency?  iv. For each identified regulated wetland and waterbody on the project site, provide the following information:  Streams: Name Quackenderry Creek Classification  Lakes or Ponds: Name Classification  Wetlands: Name Approximate Size  Wetland No. (if regulated by DEC)  v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies?  If yes, name of impaired water body/bodies and basis for listing as impaired:  i. Is the project site in a designated Floodway?  j. Is the project site in the 100-year Floodplain?  k. Is the project site in the 500-year Floodplain?  I yes ✓No  I. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer?  Yes ✓No  If yes.	ii. Do any wetlands or other waterbodies adjoin the project site?	<b>☑</b> Yes□No
state or local agency?  iv. For each identified regulated wetland and waterbody on the project site, provide the following information:  Streams: Name Quackenderry Creek Classification  Lakes or Ponds: Name Classification  Wetlands: Name Approximate Size  Wetland No. (if regulated by DEC)  v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies?  If yes, name of impaired water body/bodies and basis for listing as impaired:  i. Is the project site in a designated Floodway?  j. Is the project site in the 100-year Floodplain?  k. Is the project site in the 500-year Floodplain?  l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer?  Yes No  IYes No  IYes No  If Yes:	l e e e e e e e e e e e e e e e e e e e	
iv. For each identified regulated wetland and waterbody on the project site, provide the following information:  • Streams: Name Quackenderry Creek Classification  • Lakes or Ponds: Name Classification  • Wetlands: Name Approximate Size  • Wetland No. (if regulated by DEC)  v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies?  If yes, name of impaired water body/bodies and basis for listing as impaired:  i. Is the project site in a designated Floodway?		<b>V</b> Yes∐No
Lakes or Ponds: Name Classification  Wetlands: Name Approximate Size  Wetland No. (if regulated by DEC)  v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies?  If yes, name of impaired water body/bodies and basis for listing as impaired:  i. Is the project site in a designated Floodway?  j. Is the project site in the 100-year Floodplain?  k. Is the project site in the 500-year Floodplain?  l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer?  □Yes ☑No  IYes ☑No  If Yes: ☑No  If	iv. For each identified regulated wetland and waterbody on the project site, provide the following information:	
• Wetlands: Name Approximate Size  • Wetland No. (if regulated by DEC)  v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies?  If yes, name of impaired water body/bodies and basis for listing as impaired:  i. Is the project site in a designated Floodway?  j. Is the project site in the 100-year Floodplain?  k. Is the project site in the 500-year Floodplain?  l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer?  □Yes ☑No  If Yes:	Lakes or Ponds: Name Classification	
v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies?  If yes, name of impaired water body/bodies and basis for listing as impaired:  i. Is the project site in a designated Floodway?  j. Is the project site in the 100-year Floodplain?  k. Is the project site in the 500-year Floodplain?  l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer?  □Yes ☑No  If Yes: ☑No	<ul> <li>Wetlands: Name Approximate Size</li> </ul>	
If yes, name of impaired water body/bodies and basis for listing as impaired:  i. Is the project site in a designated Floodway?  j. Is the project site in the 100-year Floodplain?  k. Is the project site in the 500-year Floodplain?  l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer?  IYes ✓ No  If Yes:	v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired	☐Yes <b>Z</b> No
j. Is the project site in the 100-year Floodplain?  k. Is the project site in the 500-year Floodplain?  □Yes ☑No  1. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? □Yes ☑No  If Yes:		
j. Is the project site in the 100-year Floodplain?  k. Is the project site in the 500-year Floodplain?  □Yes ☑No  1. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? □Yes ☑No  If Yes:		
k. Is the project site in the 500-year Floodplain? ☐Yes ☑No  1. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐Yes ☑No  If Yes:		□Yes <b>☑</b> No
l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐Yes ☑No If Yes:	j. Is the project site in the 100-year Floodplain?	□Yes <b>☑</b> No
If Yes:		□Yes <b>Z</b> No
		□Yes <b>Z</b> No
i. Name of aquifer:	i. Name of aquifer:	<del></del>

The the second and a second section of secti	-141-4		
m. Identify the predominant wildlife spe-		Ohlowstenico	
Rats	Mice	Chipmunks	
Squirrels	Snakes	Birds	<del></del>
Raccoons	Ducks	Opossum	
n. Does the project site contain a designate	ted significant natural community?		☐ Yes <b>Z</b> No
If Yes:			
i. Describe the habitat/community (com	position, function, and basis for designat	ion):	
	-		
ii. Source(s) of description or evaluation	n;		
iii. Extent of community/habitat;			
Currently:		acres	
	as proposed:		
المصام المصا	. da proposod.		
• Gain or loss (indicate + or -):	- 16° to 1	_ acres	
If Yes:  i. Species and listing (endangered or threat	ntain any areas identified as habitat for an	endangered or threatened spec	ies?
<ul> <li>p. Does the project site contain any speci special concern?</li> <li>If Yes: <ul> <li>i. Species and listing:</li> </ul> </li> </ul>	es of plant or animal that is listed by NY	•	□Yes <b>⁄</b> No
q. Is the project site or adjoining area curl If yes, give a brief description of how the			∐Yes <b>Z</b> No
E.3. Designated Public Resources On o	or Near Project Site		
a. Is the project site, or any portion of it, l Agriculture and Markets Law, Article If Yes, provide county plus district name	25-AA, Section 303 and 304?	•	□Yes <b>☑</b> No
b. Are agricultural lands consisting of hig	hly productive soils present?		☐Yes <b>Z</b> No
i. If Yes: acreage(s) on project site?	- A L. american parent branches		
ii. Source(s) of soil rating(s):			
		-	
<ul> <li>c. Does the project site contain all or part Natural Landmark?</li> <li>If Yes: <ol> <li>Nature of the natural landmark:</li> <li>Provide brief description of landmark</li> </ol> </li> </ul>	of, or is it substantially contiguous to, a  Biological Community Go, including values behind designation and	cological Feature	∏Yes <b>Z</b> No
J. I. Handard St. I. and C. S. S.	diain a state line 4 Oute - 5 Duty	1 A 9	
ii. Basis for designation:	djom a state listed Crifical Environmenta		

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or distribution is listed on the National or State Register of Historic Places, or that has been determined by the Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of H	Commissioner of the NYS
If Yes:  1. Nature of historic/archaeological resource:   Archaeological Site   Historic Building or District	t
ii. Name:  iii. Brief description of attributes on which listing is based:	
f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	✓ Yes □No
g. Have additional archaeological or historic site(s) or resources been identified on the project site?  If Yes:  I. Describe possible resource(s):  II. Basis for identification:	□Yes☑No
h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or scenic or aesthetic resource?  If Yes:  I. Identify resource: Revolutionary Trail and Hudson River	r local
<ol> <li>Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historietc.): Refer to Appendix B and D</li> </ol>	ic trail or scenic byway,
<ol> <li>Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Ri Program 6 NYCRR 666?</li> <li>If Yes:</li> </ol>	vérs ☐ Yes ☑ No
i. Identify the name of the river and its designation:     ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666?	□Yes□No
F. Additional Information Attach any additional information which may be needed to clarify your project.  If you have identified any adverse impacts which could be associated with your proposal, please describe measures which you propose to avoid or minimize them.	e those impacts plus any
G. Verification I certify that the information provided is true to the best of my knowledge.	
Applicant/Sponsor Name Curt Taylor Date 1/13/2022	
Signature OBJEZ Title REGION EN	UNKER

	APPENDIX B	
Additional Information S	Supporting the EAF	
Additional Information S	Supporting the EAF	
Additional Information S	Supporting the EAF	
Additional Information S	Supporting the EAF	

#### ADDITIONAL INFORMATION SUPPORTING THE EAF

#### B. GOVERNMENT APPROVALS, FUNDING, OR SPONSORSHIP

#### B.c. City Council, Town or Village Zoning Board of Appeals

The proposed MSE Berm area is located within property owned by S.A Dunn Company, LLC. The zoning map is included in Appendix D which shows that the zoning in the proposed project area is "Industrial (1-2)" which permits uses of the land as quarries, pits, filling and excavating; therefore there is not a need for zoning or use variances.

#### B.g. State Agencies

The proposed MSE Berm will require NYSDEC approval of a Mined Land Use Permit, Part 360 Solid Waste permit, and Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (GP-0-17-001). Concurrently, the facility is renewing the existing Mined Land Use Permit and Part 360 Solid Waste permit.

#### B.i. Coastal Resources

ii. As noted in the EAF Mapper Summary Report (Appendix C), dated January 7, 2021, the proposed project is located in a community with an approved Local Waterfront Revitalization Program. However, this project does not involve any disturbance within the waterfront area.

#### C. PLANNING AND ZONING

#### C.2 Adopted land use plans

C.2.b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?)?

Yes, Remediation Site: 442042 – Rensselaer Wyck Target Range – Clean up started in the summer of 2015 and by the following year, the site was completed. Refer to Appendix D for more information.

#### C.3 Zoning

C.3.a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance?

*If Yes, what is the zoning classification(s) including any applicable overlay district?* 

The proposed project area is located on property owned by S.A Dunn & Company LLC which has an adopted zoning law or ordinance. The City of Rensselaer zoning map dated June 2012 (Appendix D) classifies the C&D area as Industrial (1-2) which is an area where quarries, pits, filling and excavating are permitted.

C.3.b. Is the use permitted or allowed by a special or conditional use permit? The proposed MSE Berm area permit modification requires approval by NYSDEC.

#### D. PROJECT DETAILS

#### D.1 Proposed and potential development

D.1.a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)?

The general nature of the proposed action is construction of a mechanically stabilized earthen (MSE) berm on the northern and eastern side of the site.

#### D.1.b. Total acreage to be physically disturbed

The proposed project encompasses 5.2 acres which includes the reinforced berm geogrid embedment length, berm top width, including drainage swale, road, and planting area (where applicable). The project area also includes the North Infiltration Basin which is already approved and permitted but will be constructed concurrent with the MSE Berm. Refer to Figure 2 for limits of the project area.

D.1.c. Is the proposed action an expansion of an existing project or use?

No, the proposed action is not an expansion to the site. The proposed MSE Berm will provide additional visual screening.

D.1.e. Will proposed action be constructed in multiple phases?

Yes, the proposed action will be constructed in multiple phases. Initial construction of the MSE Berm will begin prior to installation of Phase 8B of the C&D Facility and will be completed during construction of Phase 7B during the following construction season.

#### D.2 Project operations

D.2.f.i. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? The proposed MSE Berm will not result in one or more sources of air emissions.

D.2.g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit?

The proposed action does not require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit.

D.2.j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services?

Under the current permit from NYSDEC, the site is permitted to generate up to 100 truck round trips per day. There are no proposed changes to this permit condition to facilitate the MSE Berm project; therefore, there will be no changes to the traffic impacts.

D.2.m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both?

The construction of the MSE Berm will not result in changes to the expected noise levels.

D.2.n. Will the proposed action have outdoor lighting?

No, the proposed action does not include any plans for outdoor lighting.

D.2.o. Does the proposed action have the potential to produce odors for more than one hour per day?

No, the proposed project is construction of a MSE Berm, which will not generate odors. The berm construction will not increase the amount of waste placed in the C&D disposal area; therefore, the potential for odor production remains the same as current operations and the site will continue to implement odor control procedures in compliance with the Facility Manual.

D.2.s. Does the proposed action include construction or modification of a solid waste management facility?

The construction of the MSE Berm does not change the type of management or handling of waste, nor result in any increase to the rate of disposal or anticipated site life, but it is anticipated to reduce the waste disposal site life by approximately four months.

#### E. SITE AND SETTING OF PROPOSED ACTION

- E.1 Land uses on and surrounding the project site
- E.1.d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? Appendix D includes an aerial photograph of the Site and Rensselaer Junior/Senior High School, which is located approximately 653 feet northeast. The MSE Berm will provide additional visual screening from site operations at the school property.
- E.1.f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property, which is now, or was at one time, used as a solid waste management facility?

The project site is currently a C&D disposal facility. There are no development constraints for the proposed MSE Berm.

E.1.h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site?

According to the Environmental Site Remediation Database Search Details (Appendix D), a former target range that is identified by the Environmental Site Remediation Database Search as a potential hazardous waste site (site code: 442042) is located approximately 1,210 feet from the site. The location is a class "C" facility, indicating that it has been satisfactorily completed under a remedial program. Further information about the Rensselaer Wyck Target Range can be found in the attached Environmental Site Remediation Database Search Details in Appendix D.

- E.2 Natural Resources On or Near the Project Site
- E.2.a. What is the average depth to bedrock on the project site?

Depth to bedrock on the Project site is approximately 198 feet below the ground surface.

#### E.2.c. Predominant soil type(s) present on project site

The Web Soil Survey Soil Map (Appendix D) illustrates predominant soil types present on the additional disturbance area. Based on this information, the soils in the area of the proposed action are Fredon Silt loam (23.9%), Hoosic Gravelly Sandy Loam (63.1%) and Windsor Loamy Sand (13.0%).

#### *E.2.d.* What is the average depth to the water table on the project site?

The depth to groundwater is approximately 130 to 170 feet below grade.

#### *E.2.e. Drainage status of project site soils:*

The Web Soil Survey Soil Map for the project area (Appendix D) provides the engineering properties of the predominant soil types present on the site. Using the Web Soil Survey Map Engineering Properties descriptions, the soils within the site are approximately 13.0% excessively drained, 63.1% somewhat excessively drained) and 23.9% poorly drained.

#### *E.2.f.* Approximate proportion of proposed action site with slopes:

CEE estimates the approximate proportion of the existing grade with 0-10% side slopes 39% of site, 10-15% to cover 11% of the site and 15% or greater to cover 50% of site.

#### *E.2.h.* Surface water features.

ii. Do any wetlands or other waterbodies adjoin the project site?

The facility was previously reviewed under SEQR 2012 and there are no changes in impacts to wetlands associated with the proposed modification. A wetland delineation was done on the project site by the U.S. Army Corps of Engineers and it was determined that four (4) small wetlands and four (4) streams located at the southern portion of the site. The berm is not located within previously delineated wetland areas.

#### E.2.i, j, k. Is the project site in a designated Floodway?

Is the project site in the 100 year Floodplain?

*Is the project site in the 500 year Floodplain?* 

The NEPAssist flood hazard zone map (Appendix D) does not show the berm area within a designated floodway, 100-year floodplain, or 500-year floodplain. The nearest floodway/floodplain is associated with the Hudson River, which is approximately 4,700 feet west of the MSE Berm.

E.2.m. Identify the predominant wildlife species that occupy or use the project site:

According to the New York State wildlife website, predominant wildlife species that may occupy or use the Site are snakes, mice, rats, chipmunks, birds, ducks, squirrels, raccoons, and opossum.

E.2.n. Does the project site contain a designated significant natural community?

The EAF Mapper Summary Report dated January 7, 2022 (Appendix C) indicates that the Site does not to contain a designated significant natural community.

E.2.o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species?

The EAF Mapper Summary Report dated January 7, 2022 (Appendix C) indicates that the site does not contain any species of plant or animal that is listed by the federal government or as endangered or threatened and does not contain any areas identified as habitat for an endangered or threatened species.

E.2.p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern?

The EAF Mapper Summary Report dated January 7, 2022 (Appendix C) indicates the project site does not contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern.

#### E.3 Designated Public Resources On or Near Project Site

E.3.a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304?

The EAF Mapper Summary Report dated January 7, 2022 (Appendix C) indicates that the project site is not located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304.

#### E.3.b. Are agricultural lands consisting of highly productive soils present?

The Web Soil Survey Soil Map for the site (Appendix D) provides the engineering properties of the predominant soil types present on the project site. The predominant soil types are described as a Hoosic gravelly sandy loam, Windsor loamy sand, and Fredon silt loam, which are not designated as an agricultural land consisting of highly productive soils.

E.3.c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark?

The EAF Mapper Summary Report dated January 7, 2022 (Appendix C) indicates that the project site does not contain, partially contain, and is not substantially contiguous to a registered National Natural Landmark.

E.3.d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? The EAF Mapper Summary Report dated January 7, 2022 (Appendix C) indicates the project area is not located in or adjacent to a state listed Critical Environmental Area.

E.3.e Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?

The EAF Mapper Summary Report dated January 7, 2022 (Appendix C) indicates that mapping of National or State Register of Historic Places within the project area is incomplete. A study was prepared and submitted with the 2012 FEIS for the facility, and cultural impacts from the facility were previously reviewed under SEQR. The potential for impact of this project to have an effect on an archaeological site had been determined to be low.

E.3.f Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?

The EAF Mapper Summary Report dated January 7, 2022 (Appendix C) indicates that the proposed site is adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory. A study was prepared and submitted with the 2012 FEIS for the facility, and cultural impacts from the facility were previously reviewed under SEQR. The potential for impact of this project to have an effect on potentially significant cultural resources has been evaluated by Columbia Heritage, LTD, who determined that the potential for impact is low. The approximate area that will be under construction has been already disturbed by historical mining operations, which date back more than 100 years.

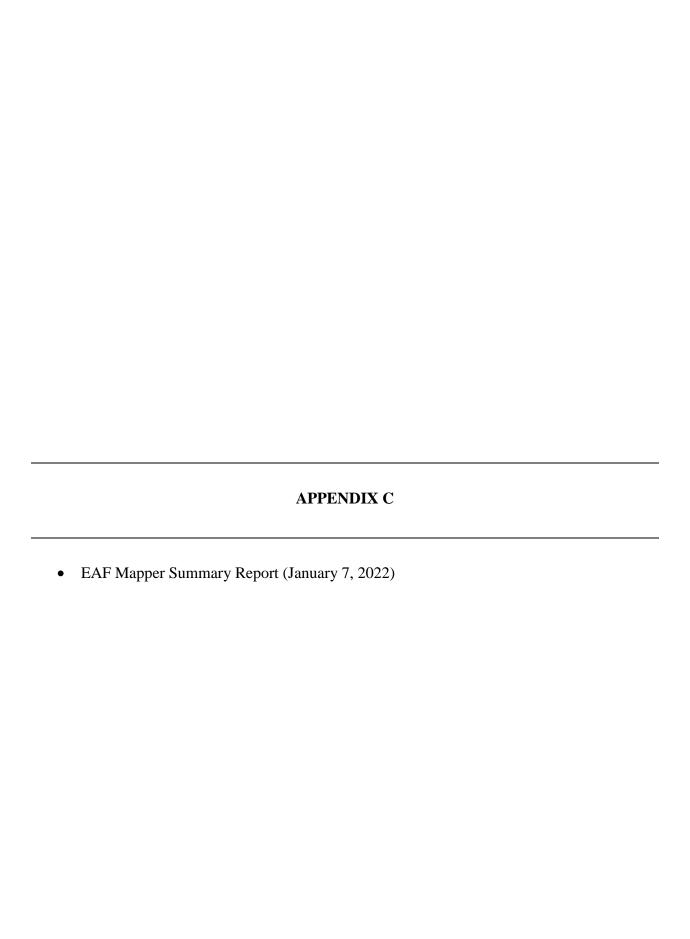
E.3.h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource?

The links and information provided in the New York State Department of Environmental Conservation website identified two publically accessible federal, state, or local scenic or aesthetic resources within 5 miles of the MSE Berm. The City of Rensselaer Local Water front Revitalization Program identifies the land adjacent to the Hudson River as a "waterfront revitalization area" which nearest point to the MSE Berm is approximately 0.76 miles. The NYS DOT Scenic Byways identifies the revolutionary Trail as a "scenic byway" ending in Albany NY, approximately on the corner of Dove St. and Washington Ave., which is approximately 1.70 miles from the MSE Berm. Refer to the "Publically Accessible Federal, State, or Local Scenic or Aesthetic Resources" table, map and supporting documents in Appendix D for specific information.

Local Scenic or Aesthetic Resources within 5 miles of Project Site					
Name	Description	Distance From Project	Approximate	City	Source
		Site (miles)	Location		
					The City of
Hudson River	Waterfront	0.76	Forbes Ave.	Rensselaer	Rensselaer
	Revitalization				Waterfront
	Area				Revitalization
					Program
			Dove St. /		NYS DOT
Revolutionary	Scenic Byway	1.70	Washington	Albany	Scenic
Trail			Ave.		Byways

E.3.i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666?

The EAF Mapper Summary Report dated January 7, 2022 (Appendix C) indicates that the project area is not located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666.





**Disclaimer:** The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	Yes
C.2.b. [Special Planning District]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	Yes
E.1.h.iii [Within 2,000' of DEC Remediation Site - DEC ID]	442042
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	No
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.2.j. [100 Year Floodplain]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.2.k. [500 Year Floodplain]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.2.I. [Aquifers]	No

E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	No
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No

#### APPENDIX D

- Environmental Site Remediation Database Search Details 442042
- Final Zoning Map 2012
- Rensselaer Zoning Bylaws Excerpt
- Google Earth Aerial View and Distance to School
- Web Soil Survey Soil Map
- Web Soil Survey Drainage Class
- Web Soil Survey Engineering Properties
- NEPAssist Floodplain Map
- Map Local Scenic or Aesthetic Resources within 5 miles
- Table Local Scenic or Aesthetic Resources within 5 miles
- The City of Rensselaer Local Waterfront Revitalization Program
- Revolutionary Byway



## Environmental Site Remediation Database Search Details

## Site Record

## Administrative Information

Site Name: Rensselaer Wyck Target Range

Site Code: 442042

Program: State Superfund Program

Classification: C EPA ID Number:

### Location

DEC Region: 4

Address: 10th Street

City:Rensselaer Zip: 12144

County:Rensselaer Latitude: 42.655949812 Longitude: -73.724138648

Site Type:

Estimated Size: 2.5 Acres

## Site Owner(s) and Operator(s)

Current Owner Name: City of Rensselaer

Current Owner(s) Address: 62 Washington Street, Room 2

Rensselaer, NY, 12144

## Site Description

Location: The Non-Department of Defense owned, Non-Operational Defense Site (NDNODS) known as "NDNODS Rensselaer Wyck Target Range" is a former Army National Guard small arms range located in the City of Rensselaer, NY. The target range occupied an 11-acre section of a 60-acre undeveloped woodland parcel known to the City of Rensselaer residents as ¿the Hollow.¿ The Hollow consists of steep woodled ridges on either side of the Quackenderry Creek and the vegetated valley through which the creek flows. The steep terrain provided a natural backstop for bullets. The line of fire was from SE to NW. A concrete

bunker, which served as the target-mounting location for the range, remains at the foot of a steep, earthen embankment (Bunker Hill) on the northern end of the Hollow parcel. The portion of the former range which had been considered by DEC to be a potential inactive hazardous waste disposal site (the Site) is the 2,5 acre area centered on the former target berm, bunker and natural backstop. Current Zoning/Uses: The Site and surrounding woodland parcels are owned by the city of Rensselaer and zoned as playground and residential vacant land. The property is currently used by residents for passive recreation and bird watching, and by community members operating unregulated All-Terrain Vehicles (ATVs). Some residents also use the partially-developed trails in the Hollow to access Van Rensselaer Drive, which is the entry road for the Rensselaer City School District High School. The intended future use of the property is as a city park and wildlife corridor. Historic Uses: The site was used by the New York Army National Guard as the Rensselaerwyck Target or Rifle Range from approximately 1894 to 1938. The property comprising the target range and Hollow was transferred to the City of Rensselaer in 1959 from the State of New York. In a September 2011 Preliminary Assessment (PA), the Army National Guard defined the area of concern as a MRS (Munitions Response Site), noting that the target berm and shelter were still present. The target berm was approximately six feet wide by eight feet deep and 120 feet long. The berm was located in the eastern portion of the MRS boundary. Additionally, the team observed a shelter that was 30 feet long and 10 feet wide. The direction of fire was to the northeast with a target berm located in front of a natural backstop. Potential munitions used were small arms (.22, .30, .38 and .45 caliber). The site was deemed a low priority for remediation by the Guard. The City of Rensselaer received a \$200,000 Brownfields grant from USEPA in 2013 to clean up the metals contaminated soils (primarily lead and copper) and support community outreach. Implementation of the clean-up project was completed in June 2016.

## **Site Environmental Assessment**

Army National Guard Assessment: - No MEC (Munitions and Explosives of Concern) were observed during the Army National Guard's field work in 2011. A munitions debris (MD) item, a.30 caliber bullet, was observed during sample collection. - Four biased surface soil, two biased sediment, two ambient surface soil, and one ambient sediment sample were collected and analyzed for antimony, copper, and lead during the 2,941 meters (1.83 miles) of visual survey completed. - The maximum detected copper concentrations slightly exceeded the calculated background and human health screening values. New York State Department of Environmental Conservation (NYSDEC)/NY State Department of Health (NYSDOH) noted that for lead, three of the soil samples had concentrations of lead that were above 300 mg/kg,

close to the 400 mg/kg Soil Cleanup Objective. This site is in a park setting where exposures are likely (evidence of people using area) and also adjacent to a school. Therefore, the 2.5 acre portion of NDNODS Rensselaer Wyck Target Range MRS was recommended by the National Guard (with State concurrence) for a Remedial Investigation/Feasibility Study for MC (Munitions Constituents). Remedial Activities: The city of Rensselaer entered into a Cooperative Agreement with the EPA to enter EPA's Brownfield Cleanup Program (BCP)in 2013. Rensselaer contracted with ARCADIS to oversee all environmental activities at the site. The selected remedy was to remediate all lead and copper contaminated soils to NYS Part 375 Restricted Residential Soil Cleanup Objectives (RRSCOs) and to develop the site and surrounding property into a city park known as "the Hollow. DEC and DOH concurred with the selected remedy in August 2015 and remedial construction began in September 2015. By May 2016, remediation (soil removal) was complete and site restoration was underway. All excavated soil (~500 tons) was disposed of as non-hazardous waste at Albany's Rapp Road landfill. By way of email dated 7/14/16, ARCADIS confirmed that all site work is complete. The final engineering report (dated December 2016) was accepted by DEC and DOH in March 2017.

### **Site Health Assessment**

As information for this site becomes available, it will be reviewed by the NYSDOH to determine if site contamination presents public health exposure concerns.

For more Information: E-mail Us

Refine This Search

# City of RENSSELAER Zoning Zoning Update 2012 STERLING RIDGE CONTRACT OF AVE City of RENSSELAER Legend Historic Overlay District **Proposed Zoning** General Commercial (C-1) Light Industrial (I-1) Industrial (I-2) Downtown Mixed-Use (MU-1) Waterfront Mixed-Use (MU-2) Open Space and Conservation (OS) Planned Development District (PDD) Residential District #1 (R-1) Residential District #2 (R-2) 2,000 3,000 Map Prepared By: Bergmann June 2012

#### §179-18. I-2 Industrial.

- A. Purpose and intent. The purpose of the Industrial District (I-2) is to provide for areas where industrial uses have historically been concentrated and will be continued into the future. Industrial operations, which are largely tied to the City's southern waterfront, must respect adjacent transitional areas through the incorporation of buffers, design guidelines, and compliance with performance standards as set forth elsewhere in this chapter.
- B. Permitted Uses.

The following uses are permitted in the I-2 District:

- (1) Animal Hospital;
- (2) Building, Accessory;
- (3) Building, Office;
- (4) Cultural Use Facility or Museum;
- (5) Greenhouse, Commercial;
- (6) Manufacturing, Light;
- (7) Manufacturing Operations;
- (8) Motor Vehicle Service Stations;
- (9) Open Space;
- (10) Personal Storage Facility;
- (11) Place of Worship;
- (12) Quarries and Pits;
- (13) Filling and Excavating;
- (14) Restaurant; and
- (15) Warehouse, Wholesale or Distribution Center.
- C. Uses requiring a special use permit. Certain uses require a special use permit from the Planning Commission, subject to the requirements of §179-24.

The following uses are allowed as special permit uses in the I-2 District:

- (1) Adult Use;
- (2) Drive-In Facility;
- (3) Parking Garage; and
- (4) Telecommunication Facility or Tower(s).
- D. Prohibited uses. Uses that are not expressly permitted in this section are prohibited.
- E. Lot size. Please see the City of Rensselaer Bulk and Use Table, §179-19. Uses not listed in the Bulk and Use Table are not subject to lot size requirements.
- F. Setbacks. Please see the City of Rensselaer Bulk and Use Table, §179-19. Uses not listed in the Bulk and Use Table are not subject to setback requirements.
- G. Impervious surface coverage. Please see the City of Rensselaer Bulk and Use Table, §179-19. Uses not listed in the Bulk and Use Table are not subject to impervious surface regulations.
- H. Height limitations. Please see the City of Rensselaer Bulk and Use Table, §179-19. Uses not listed in the Bulk and Use Table are not subject to height requirements.

- I. Off-street parking requirements. Please see the City of Rensselaer Bulk and Use Table, §179-19. Uses not listed in the Bulk and Use Table are not subject to off-street parking requirements. In addition, all uses permitted in this district are subject to the additional parking and loading requirements set forth in §179-55 of this chapter.
- J. Supplementary regulations. Uses are subject to the requirements specified elsewhere in these regulations including, but not limited to, Regulations Applicable to All Zoning Districts in accordance with Article III, Site Plan Review and Approval in accordance with Article VI, and Subdivision of Land, if applicable, in accordance with Article VII.
- K. Signs. Please refer to §179-IV.

## Distance From MSE Berm to Local School





#### MAP LEGEND

#### Area of Interest (AOI)

Area of Interest (AOI)

#### Soils

Soil Map Unit Polygons



Soil Map Unit Lines



Soil Map Unit Points

#### Special Point Features

Blowout O



Barrow Pit Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



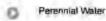
Lava Flow Marsh or swamp



Mine or Quarry



Miscellaneous Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Sin



Sedic Spot

Spoil Area



Stony Spot Very Stony Spot



Wet Spot

Other



Special Line Features

#### Water Features

Streams and Canals

#### Transportation



Rails



Interstate Highways



US Routes



Major Roads Local Roads

#### Background



Aerial Photography

#### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1/15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Rensselaer County, New York Survey Area Data: Version 15, Sep 3, 2018

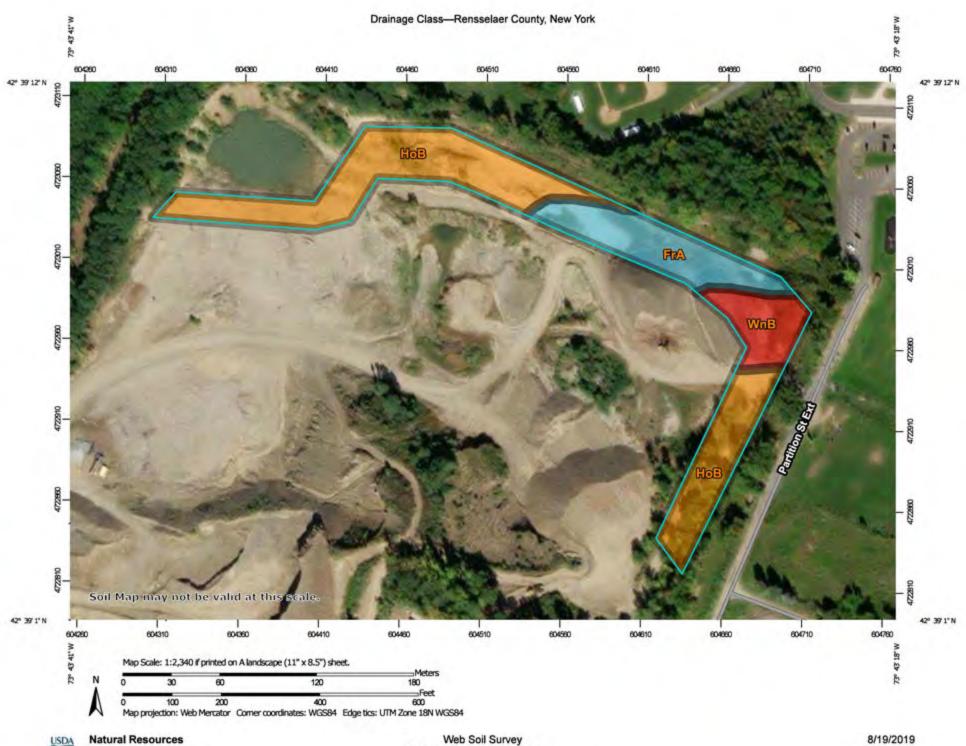
Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) serial images were photographed: Jul 1, 2014—Sep 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
FrA	Fredon silt loam, 0 to 4 percent slopes	0.9	23.9%
НоВ	Hoosic gravelly sandy loam, 3 to 8 percent slopes	2,5	63.1%
WnB	Windsor loamy sand, 3 to 8 percent slopes	0,5	13.0%
Totals for Area of Interest		3.9	100.0%



## MAP LEGEND

#### Area of Interest (AOI) Excessively drained Area of Interest (AOI) Somewhat excessively drained Soils Well drained Soll Rating Polygons Excessively drained Moderately well drained Somewhat excessively Somewhat poorly drained drained Poorly drained Well drained Very poorly drained Moderately well drained Subaqueous Samewhat poorly drained Not rated or not available Poorly drained Water Features Very poorly drained Streams and Canals Subaqueous Transportation Not rated or not available Rails Soil Rating Lines Interstate Highways Excessively drained US Routes Somewhat excessively drained Major Roads Well drained Local Roads Moderately well drained Background Samewhat poorly drained Aerial Photography Poorly drained Very poorly drained Subaqueous Not rated or not available Soil Rating Points

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1/15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Rensselaer County, New York Survey Area Data: Version 15, Sep 3, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) serial images were photographed: Jul 1, 2014—Sep 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## **Drainage Class**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
FrA	Fredon silt loam, 0 to 4 percent slopes	Poorly drained	0.9	23.9%
НоВ	Hoosic gravelly sandy loam, 3 to 8 percent slopes	Somewhat excessively drained	2.5.	63.1%
WnB	Windsor loamy sand, 3 to 8 percent slopes	Excessively drained	0.5	13.0%
Totals for Area of Inter	rest		3.9	100.0%

## Description

"Drainage class (natural)" refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized-excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and very poorly drained. These classes are defined in the "Soil Survey Manual."

## Rating Options

Aggregation Method: Dominant Condition Component Percent Cutoff: None Specified

Tie-break Rule: Higher

## **Engineering Properties**

This table gives the engineering classifications and the range of engineering properties for the layers of each soil in the survey area.

Hydrologic soil group is a group of soils having similar runoff potential under similar storm and cover conditions. The criteria for determining Hydrologic soil group is found in the National Engineering Handbook, Chapter 7 issued May 2007(http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx? content=17757.wba). Listing HSGs by soil map unit component and not by soil series is a new concept for the engineers. Past engineering references contained lists of HSGs by soil series. Soil series are continually being defined and redefined, and the list of soil series names changes so frequently as to make the task of maintaining a single national list virtually impossible. Therefore, the criteria is now used to calculate the HSG using the component soil properties and no such national series lists will be maintained. All such references are obsolete and their use should be discontinued. Soil properties that influence runoff potential are those that influence the minimum rate of infiltration for a bare soil after prolonged wetting and when not frozen. These properties are depth to a seasonal high water table, saturated hydraulic conductivity after prolonged wetting, and depth to a layer with a very slow water transmission rate. Changes in soil properties caused by land management or climate changes also cause the hydrologic soil group to change. The influence of ground cover is treated independently. There are four hydrologic soil groups, A, B, C, and D, and three dual groups, A/D, B/D, and C/D. In the dual groups, the first letter is for drained areas and the second letter is for undrained areas.

The four hydrologic soil groups are described in the following paragraphs:

*Group A.* Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

*Group B.* Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

*Group C.* Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

*Group D.* Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

Depth to the upper and lower boundaries of each layer is indicated.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly."

Classification of the soils is determined according to the Unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Percentage of rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an ovendry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Liquid limit and plasticity index (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

### References:

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

## **Report—Engineering Properties**

Absence of an entry indicates that the data were not estimated. The asterisk '\*' denotes the representative texture; other possible textures follow the dash. The criteria for determining the hydrologic soil group for individual soil components is found in the National Engineering Handbook, Chapter 7 issued May 2007(http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba). Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

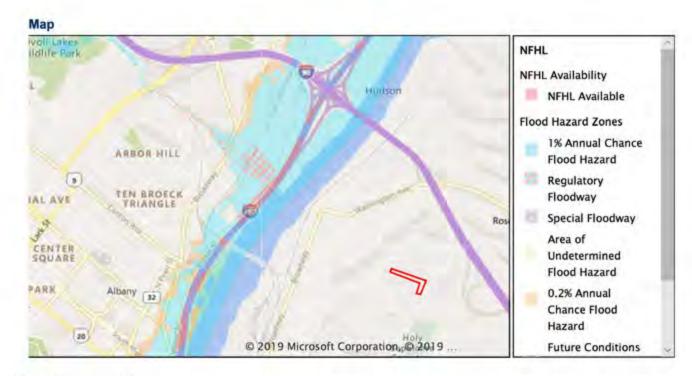
				Engineering	Properties-	Rensselaer	County, N	New York						
Map unit symbol and	Pct. of	Hydrolo	Depth	USDA texture	Classi	fication	Pct Fra	gments	Percent	age passi	ng sieve	number-	Liquid	Plastici
soil name	map	gic			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200	limit	y Index
			In				L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H
FrA—Fredon silt loam. 0 to 4 percent slopes														
Fredon, poorly drained	50	B/D	0-8	Silt loam	CL, ML, SC, SM, CL- ML	A-2, A-4	0-0-0	0-0-2	75-95- 95	60-92- 92	40-85- 90	25-70- 80	20-25 -30	NP-5 -10
			8-23	Loam, sandy loam, gravelly silt loam	CL, GC, ML, SM, CL- ML	A-1, A-2, A-4	0-0-0	0-0-2	75-85- 95	60-75- 92	35-65- 90	15-55- 80	20-25 -30	NP-5 -10
			23-60	Stratified very gravelly sand to loamy fine sand, sand	GM, GP, GW, GW- GM, SW-SM	A-1, A-2	0-0-0	0-0-5	45-95- 95	25-92- 92	10-50- 60	0- 5- 35	-	NP
Fredon, somewhat poorly drained	35	B/D	0-8	Silt loam	CL, ML, SC, SM, CL- ML	A-2, A-4	0- 0- 0	0-0-2	75-95- 95	60-92- 92	40-85- 90	25-70- 80	20-25 -30	NP-5 -10
			8-23	Loam, sandy loam, gravelly silt loam	CL, GC. ML, SM, CL- ML	A-1, A-2. A-4	0-0-0	0-0-2	75-85- 95	60-75- 92	35-65- 90	15-55- 80	20-25 -30	NP-5 -10
			23-60	Stratified very gravelly sand to loamy fine sand, sand	GM, GP, GW, GW- GM, SW-SM	A-1. A-2	0-0-0	0-0-5	45-95- 95	25-92- 92	10-50- 60	0-5-35	-	NP

				Engineering	Properties-	Rensselaer	County, N	New York						
Map unit symbol and soil name	Pct. of map unit	Hydrolo	Depth	USDA texture	Classi	fication	Pct Fra	gments	Percent	age passi	ng sieve	number-	Liquid	Plastici
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200	limit	y Index
			In				L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H
HoB—Hoosic gravelly sandy loam, 3 to 8 percent slopes														
Hoosic	85	A	0-9	Gravelly sandy loam	SM, ML, GM	A-1, A-2, A-4	0-0-0	0-5-10	50-70- 90	35-60- 75	15-35- 70	10-20- 60	30-38 -45	2-6 -10
			9-23	Gravelly sandy loam, very gravelly sandy loam, gravelly loam	GM, SM, SP-SM, SC-SM	A-1, A-2, A-4	0-0-0	0-8-10	50-65- 90	35-50- 75	15-30- 65	10-20- 50	20-25 -30	2-5 -8
			23-60	Very gravelly sand, very gravelly loarny sand	GM, SM. GP	A-1	0-0-0	0-8-15	40-50- 70	25-35- 50	10-15- 30	0- 2- 15	7	NP

				Engineering I	Properties-	Rensselaer	County, N	New York						
Map unit symbol and	Pct. of	Hydrolo	Depth	USDA texture	Classification		Pct Fra	gments	Percentage passing sieve number-				Liquid	Plasticit
soil name	map gic unit group		Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200	- limit y	y index		
			In				L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H
WnB—Windsor loamy sand, 3 to 8 percent slopes														1
Windsor, loamy sand	85	A	0-1	Slightly decomposed plant material, highly decomposed plant material, moderately decomposed plant material		A-8	0-0-0	0-0-0						
		- 1	1-3	Loamy sand, loamy fine sand, fine sand, sand	SP-SM, SW- SM, SM	A-2-4	0-0-0	0- 0- 0	85-100- 100	70-100- 100	50-83-1 00	12-25- 37	0-0 -30	NP-0 -2
			3-25	Loamy sand, loamy fine sand, fine sand, sand, coarse sand, loamy coarse sand	SW-SM, SP-SM, SM	A-3, A-2-4	0-0-0	0-0-0	86-100- 100	72-100- 100	45-75- 98	10-22- 36	0-0 -23	NP-0 -4
			25-65	Loamy fine sand, fine sand, sand, loamy sand, coarse sand, gravelly coarse sand	SW, SP, SM, SP-SM, SW-SM	A-3, A-1- b, A-2-4	0-0-0	0-0-0	81-100- 100	63-100- 100	40-78-1 00	4-12-33	0-0 -20	NP-0 -4

## **Data Source Information**

Soil Survey Area: Rensselaer County, New York Survey Area Data: Version 15, Sep 3, 2018



## Geographic coordinates:

### LINE

(42.652921,-73.726386,42.653198,-73.726182,42.652219,-73.722502,42.651130,-73.7 23146,42.651241,-73.723575,42.652038,-73.723167,42.652929,-73.726418,42.652937,-73.726407)

with buffer 0.5 miles

Note: The information in the following reports is based on publicly available databases and web services. The National Report uses nationally available datasets and the State Reports use datasets available through the EPA Regions. Click on the hyperlinked question to view the data source and associated metadata.

Error occurred when calling analysis web service.

## Local Scenic or Aesthetic Resources within 5 miles

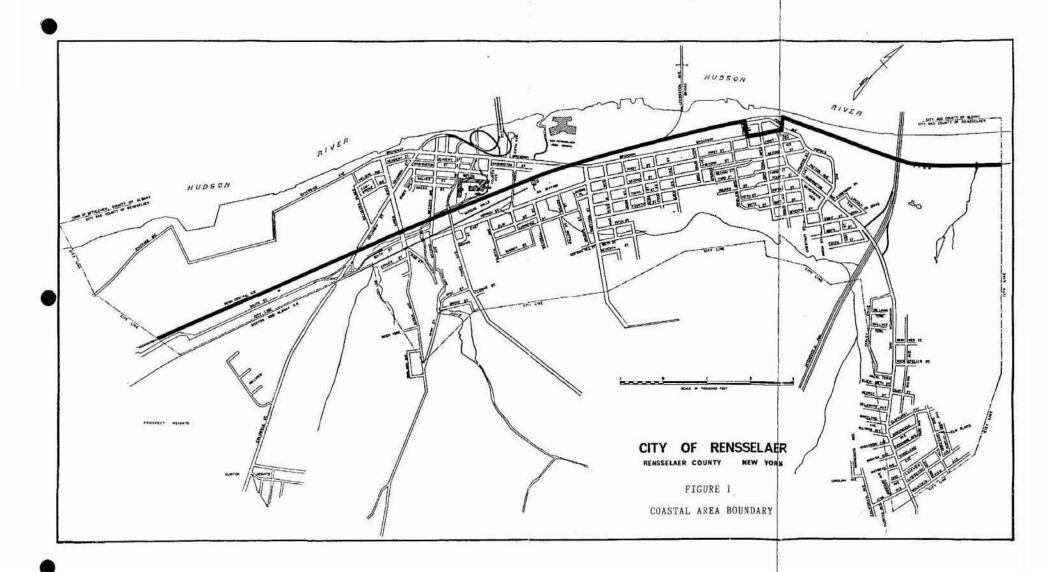


	Publically Accessible Federal, State, or Local Scenic or Aesthetic Resources								
Name	Description	Distance from Proposed Site (miles)	Approximate Location	City	Source				
Name	Description		Approximate Location	City					
Hudson River	Waterfront revitalization Area	0.76	Forbes Ave.	Rensselaer	The City of Rensselaer Local Waterfront Revitalization Program				
Revolutionary Trail	Scenic Byway	1.70	Dove St. / Washington Ave.	Albany	NYS DOT Scenic Byways				

The State's Coastal Management Program has established statewide coastal boundaries in accordance with the requirements of the Coastal Zone Management Act of 1972, as amended, and its subsequently-issued rules and regulations. This previously-designated waterfront revitalization area boundary for the City has been reviewed and reaffirmed during the Local Waterfront Revitalization Program planning process.

Specifically, as illustrated on Figure 1, the inland coastal area boundary in Rensselaer generally follows the landward (eastern) edge of the right-of-way of the Conrail tracks, which extend from south to north throughout the City. This boundary has been selected for several of its characteristics: (1) being generally coincident with the 100-year flood hazard area boundary; (2) being the point at which the land begins to slope upward from the level Hudson River plain; and (3) further being a distinct land use boundary between commercial/industrial uses on the River (seaward) side of the tracks and more residential uses on the landward side. Where the limit of the 100-year flood extends landward (generally easterly) of the right-of-way of the tracks, the waterfront revitalization area boundary instead follows the 100-year flood boundary. The boundary makes one detour from this course to encompass the historic district in Bath.

The seaward boundary of Rensselaer's coastal area is coincident with the City's legal jurisdiction. The Rensselaer City Charter (1915) specifically defines the City's legal jurisdiction as coincident with the westernmost boundary of Rensselaer County; this boundary assumedly is the approximate centerline of the Hudson River.



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### The Revolutionary Trail

The Revolutionary Trail runs east-west between the state capital of Albany and the shores of the Great Lake Ontario. As it traverses scenic valleys and woodlands, the route offers exceptional museums, historic sites, hiking, picnicking and cycling. Adirondack lakes and Lake Ontario accommodate all kinds of water sports, including fishing, boating, and swimming.







Themes: Historic, Scenic, Recreational

Length: 158 miles

Region: Great Lakes/Central Connects: Port Ontario and Albany

Information: Mohawk Valley Heritage Corridor Commission (MVHCC) (518) 873-1045

Corridor Management Plan:

- Pages 001-050
- Pages 051-100
- Pages 101-150
- Pages 151-200
- Pages 201-226

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Visual Resource Assessment Re		



# VISUAL RESOURCE ASSESSMENT

NORTH BERM MODIFICATION

DUNN MINE AND C&D FACILITY

TOWN OF NORTH GREENBUSH, New YORK

Prepared for: S.A. Dunn & Company 315 Partition Street Rensselaer, New York 12144

June, 15 2021

### Introduction

S.A. Dunn & Company is proposing modification of the existing S.A Dunn C&D Landfill (NYSDEC Facility 4-3899-00006/00001) ("Existing Facility"). The proposed project, known as the North Berm Modification (or the "Project"), includes modifying the northern perimeter berm to include a mechanically stabilized earthen (MSE) berm.

The purpose of the proposed MSE berm is to provide an improved visual barrier to mine operations and to reclamation land-use solid waste operations as compared to the currently approved land-use plans ("Existing Facility)". With the North Berm in place, Facility operations would not be seen from the areas north of the Facility except at the final stages of reclamation. Without the North Berm (i.e., operations consistent with the approved Existing Facility), direct line-of-sight views of Facility operations would exist for a longer duration.

The North Berm Modification will reduce the currently approved C&D filling area by approximately 1.2 acres and total land disturbance will be reduced by 0.66 acres. The proposed MSE Berm will not substantially change the final reclamation plan as the MSE berm is to be incorporated into the design of the reclamation land-use landfill. The maximum elevation of the Existing Facility (currently approved landfill at completion) is 324 feet above mean sea level (amsl). The proposed North Berm Modification will maintain this currently approved maximum elevation of 324 feet amsl, however the final grading along and immediately adjacent to the berm are proposed to change which may alter the visual characteristic of the Existing Facility. Additional details about the Project can be found in the Part 360 Permit Application.

This report compares degree of visibility and visual character of the Existing Facility (currently approved landfill at completion) with the proposed North Berm Modification (at completion). The process follows basic New York State Department of Environmental Conservation's ("NYSDEC") Program Policy on Assessing and Mitigating Visual Impact (DEP-00-02 [revised 12/13/2019) ("DEC Visual Policy") criteria for evaluating visual impact.



## **VIEWSHED ANALYSIS**

Viewshed mapping identifies the geographic area within which there is a relatively high probability that some portion of the Project could be visible. A viewshed map illustrating the area of theoretical visibility of the Project considering the screening effect of existing topography, woodland vegetation and buildings is provided as Figure A1 in Appendix A.

Global Mapper v.20 GIS software was used to generate the viewshed area based on publicly available topographic and digital orthophoto datasets. Topographic data was derived from 2-meter resolution digital elevation models (DEM) acquired from the New York State GIS Clearinghouse. Using Global Mapper's viewshed analysis tool, the Project's location and height were input and a conservative offset of six feet was applied to account for the observer's eye level. The resulting viewshed identifies grid cells with a direct line-of-sight to Project high points.

For comparative purposes, individual viewshed overlays were prepared illustrating the potential viewshed areas of the Existing Facility (currently approved landfill at completion) and the proposed North Berm Modification (at completion).

The viewshed maps were calculated based on potential visibility of multiple control points. Control points were placed at the topographical crest (i.e., 324 feet amsl), as well as along the "military crest" (e.g., outward edge of landform top just below the topographic crest) of the Existing Facility and proposed North Berm contours. 42 control points each were used to represent high point elevations of these two development scenarios. The resulting composite viewshed maps identify the geographic area where some portion of the Project is theoretically visible.

The screening effect of existing vegetation and built structures was incorporated by conservatively allocating 50 feet in vertical height to woodland areas and 35 feet to building footprints (e.g., the height of a typical 2 story structure) for low-rise structures and 75 feet for high-rise buildings in downtown Albany. Existing woodland vegetation and building footprints were manually digitized from 1 and ½-foot resolution digital ortho-photographs (2017) acquired from NYS Orthos On-line. Woodland areas and building footprints were removed from the viewshed result to account for areas located within structures or densely wooded cover.

The viewshed maps are not meant to gauge how much of the proposed Facility would be visible above intervening landform or vegetation (e.g., 100%, 50%, 10% etc. of Facility height), but

<sup>&</sup>lt;sup>2</sup> https://orthos.dhses.ny.gov/



<sup>&</sup>lt;sup>1</sup> https://orthos.dhses.ny.gov/

rather identify the geographic area within which there is a relatively high probability (theoretical visibility) that some portion of the Existing Facility (at completion of currently approved operations) and the North Berm Modification (at completion) would be visible.

<u>Distance Limit</u> — Viewshed mapping was developed incrementally by digitizing existing vegetation and buildings outward from the Project site and periodically recalculating the viewshed result to identify the distance limit where Project visibility no longer occurs. Due to dense urban development in the Cities of Albany and Rensselaer, and significant woodland vegetation in outlying areas, viewshed analysis demonstrates that theoretical Project visibility is largely limited to within a radius of approximately three miles. Therefore, the study distance for aesthetic resource analysis is limited to a the three-mile radius from the central highpoint of the Northern Berm Modification. Beyond this distance Project visibility will be rare.

<u>Viewshed Interpretation</u> - Table 1 indicates the degree of theoretical visibility illustrated on the viewshed maps within the 5-mile radius study area.

Table 1 - Viewshed Summary

		Percent of
	Acres	3-Mile Study Area
Existing Facility (currently approved landfill at completion)	492	2.72%
North Berm Modification (at completion) Development	500	2.76%

Note: Calculations exclude the land area within the boundary of the Dunn Mine & C&D Facility.

As illustrated in Figure A1, some portion of the Existing Facility is already visible, or will be theoretically visible upon completion of currently permitted operations, from approximately 2.72 percent of the three-mile study area. From these areas the Project does not represent a new visual impact, but rather a continuation of the existing approved visibility of Dunn Mine C&D Facility operations. As shown, the mapped areas of new visibility are virtually indistinguishable from the areas of existing approved visibility.

Upon completion of the proposed North Berm Modification, approximately 2.76 percent of the three-mile study area would be affected. This is an increase of approximately 0.04 percent (approximately 8 acres) of the three-mile study area. These areas are generally small geographic extensions of adjacent lands that are already affected by views of the Existing Facility. In newly affected areas, views will be limited to the upper portions of the North Berm Modification appearing low to the foreground tree line.

At a minimum, 97.2 percent of the study area will have no visibility of the Existing Facility or the proposed North Berm Modification.

### **INVENTORY OF AESTHETIC RESOURCES**

## **Resources of Statewide Significance**

The DEC Visual Policy defines an "aesthetically significant place" as a place formally designated and visited because of its beauty. Aesthetically significant places are established by federal or state government pursuant to statutory authority, are a matter of public record and are not arbitrarily or subjectively determined. The DEC Visual Policy contains specific criteria defining places considered to be aesthetic resources of statewide significance. These places are high value sites including state parks, scenic roads, wild, scenic and recreational rivers, state forests, wildlife management areas, scenic areas of statewide significance, Heritage Areas, National Natural Landmarks, state or federally designated trails, properties or districts listed on the National Register of Historic Places, among others.

The DEC visual Policy notes "[n]ot all individual resources contained in the foregoing inventory of Aesthetic Resources were designated because of an associated aesthetic value or quality. Therefore, only those resources that have an aesthetic value associated with them should be considered as part of the assessment of the potential significance of the impact".<sup>4</sup>

Table 2 identifies places within the three -mile study area meeting this criterion. Inventoried places which were likely designated all, or in part, because of associated aesthetic value or quality <u>and</u> are within, or close to, the affected viewshed are highlighted in grey. These potentially impacted resources are evaluated in more detail below.

Table 2 – Aesthetic Resource Inventory

Resource Name	Resource Type	Potential Project Visibility	Designated for aesthetic value or quality
Albany Urban Heritage Area	Urban Heritage Area	Yes	Yes
Revolutionary Trail	Scenic Byway	No	Yes
Mohawk Hudson Bike Trail (Empire State Trail)	State Bike Route	Yes	Yes
Madison Ave/Western Ave Bike Route	State Bike Route	No	Yes
Albany-Helderberg Hudson Rail Trail	State Bike Route	Yes	Yes
Broadway Bike Route	State Bike Route	No	Yes
Route 9J Bike Route	State Bike Route	No	Yes
Hudson River Valley Greenway - Corning Preserve Trail	Greenway Trail	Yes	Yes
Hudson River Valley Greenway - State Bike Route 9	Greenway Trail	Yes	Yes
Rensselaer Riverfront Trail	Greenway Trail	No	Yes

<sup>&</sup>lt;sup>3</sup> DEC Visual Policy, p.15.

<sup>&</sup>lt;sup>4</sup> Dec Visual Policy, p. 6-7.



Table 2 – Aesthetic Resource Inventory

	,		Designated
		Project	for aesthetic value or
Resource Name	Resource Type	Project Visibility	quality
Papscanee Island Preserve Trail	Greenway Trail	No	Yes
Corning Preserve Boat Launch	Greenway Water Trail	No	Yes
Rensselaer Riverfront Park	Greenway Water Trail	No	Yes
Crailo	State Historic Site	No	Yes
Schuyler Mansion	State Historic Site	Yes	No
Abrams Building	Ntl Reg of Hist Places	No	No
Aiken House	Ntl Reg of Hist Places	No	No
Albany Academy	Ntl Reg of Hist Places	No	No
Albany City Hall	Ntl Reg of Hist Places	No	No
Albany Institute of History and Art	Ntl Reg of Hist Places	No	No
Albany Union Station	Ntl Reg of Hist Places	No	No
Arbor Hill Hist DistTen Broeck Triangle	Ntl Reg of Hist Places	No	No
Arbor Hill Hist DistTen Broeck Triangle (Boundary Inc)	Ntl Reg of Hist Places	No	No
Arnold, Benjamin Walworth, House and Carriage House	Ntl Reg of Hist Places	No	No
Beverwyck Manor	Ntl Reg of Hist Places	No	No
BroadwayLivingston Avenue Historic District	Ntl Reg of Hist Places	No	No
Buildings at 744, 746, 748, 750 Broadway	Ntl Reg of Hist Places	No	No
Cathedral of All Saints	Ntl Reg of Hist Places	No	No
Cathedral of the Immaculate Conception	Ntl Reg of Hist Places	No	No
Center Square/Hudson-Park Historic District	Ntl Reg of Hist Places	No	No
Cherry Hill	Ntl Reg of Hist Places	No	No
Church of the Holy Innocents	Ntl Reg of Hist Places	No	No
Clinton Avenue Historic District	Ntl Reg of Hist Places	No	No
Defreest Homestead	Ntl Reg of Hist Places	No	No
Delaware and Hudson Railroad Company Building	Ntl Reg of Hist Places	No	No
Downtown Albany Historic District	Ntl Reg of Hist Places	No	No
First Reformed Church	Ntl Reg of Hist Places	No	No
First Trust Company Building	Ntl Reg of Hist Places	No	No
Fort Crailo	Ntl Reg of Hist Places	No	No
Fort Orange Archeological Site	Ntl Reg of Hist Places	No	No
Fuller, Royal K., House	Ntl Reg of Hist Places	No	No
Hall, James, Office	Ntl Reg of Hist Places	No	No
Harmanus Bleecker Library	Ntl Reg of Hist Places	No	No
HenryRemsen House	Ntl Reg of Hist Places	No	No
Hook and Ladder No. 4	Ntl Reg of Hist Places	No	No
Jamestown Armory	Ntl Reg of Hist Places	No	No
Lafayette Park Historic	Ntl Reg of Hist Places	No	No
Lil's Diner	Ntl Reg of Hist Places	No	No
Mansion Historic District	Ntl Reg of Hist Places	No	No
Menands Manor	Ntl Reg of Hist Places	No	No
Mendelson, A., and Son Company Building	Ntl Reg of Hist Places	No	No
· · · ·	_		



Table 2 – Aesthetic Resource Inventory

		Potential Project	Designated for aesthetic value or
Resource Name	Resource Type	Visibility	quality
Merchant, Walter, House	Ntl Reg of Hist Places	No	No
Myers, Stephen and Harriet, House	Ntl Reg of Hist Places	No	No
New Scotland Avenue (Troop B) Armory	Ntl Reg of Hist Places	No	No
New York Executive Mansion	Ntl Reg of Hist Places	No	No
New York State Capitol	Ntl Reg of Hist Places	No	No
New York State Court of Appeals Building	Ntl Reg of Hist Places	No	No
New York State Department of Education Building	Ntl Reg of Hist Places	No	No
Nut Grove	Ntl Reg of Hist Places	No	No
Old Post Office	Ntl Reg of Hist Places	No	No
Palace Theatre	Ntl Reg of Hist Places	No	No
Pastures Historic District	Ntl Reg of Hist Places	No	No
Patroon Agent's House and Office	Ntl Reg of Hist Places	No	No
Quackenbush House	Ntl Reg of Hist Places	No	No
Quackenbush Pumping Station, Albany Water Works	Ntl Reg of Hist Places	No	No
Schuyler, Philip, Mansion	Ntl Reg of Hist Places	No	No
Sharpe Homestead and Cemetery	Ntl Reg of Hist Places	No	No
South End-Groesbeckville Historic District	Ntl Reg of Hist Places	No	No
St. Mary's Church	Ntl Reg of Hist Places	No	No
St. Peter's Church	Ntl Reg of Hist Places	No	No
Ten Broeck Mansion	Ntl Reg of Hist Places	No	No
United Traction Company Building	Ntl Reg of Hist Places	No	No
USS Slater (Destroyer Escort)	Ntl Reg of Hist Places	Yes	No
Van Alen, John Evert, House	Ntl Reg of Hist Places	No	No
Washington Avenue (Tenth Battalion) Armory	Ntl Reg of Hist Places	No	No
Washington Park Historic District	Ntl Reg of Hist Places	No	No
Young Men's Christian Association Building	Ntl Reg of Hist Places	No	No

## Summary of Affected Aesthetic Resources or Statewide Significance

<u>Albany Urban Heritage Area</u> - The Heritage Area system is a state-local partnership established to preserve, interpret, and promote special places in the State. The Albany Urban Heritage Area visitor center is located in the former Quackenbush Pumping Station at 25 Quackenbush Square in downtown Albany.

Visual Character - The Albany Urban Heritage Area encompasses much of downtown Albany area including the Broadway, Pearl Street, State Street and Washington Avenue commercial districts. This area is highly urban and is characterized by a mix of high-rise and low-rise buildings, parking lots and garages and heavily trafficked urban streets. The Heritage Area includes Washington and Lincoln Parks, the Empire State Plaza, the NYS Capitol building, Times



Union Center, Palace Theater, neighborhood shopping and entertainment districts, as well as multifamily residential neighborhoods. The downtown segment of the Heritage area may be considered to generally be of low to moderate visual quality. Areas of architectural interest, (i.e., State Capitol, Empire State Plaza, SUNY Plaza, etc.) offer enhanced visual quality.

The Heritage Area also includes the City of Albany Corning Preserve, a popular linear waterfront park and public greenspace on the west bank of the Hudson River. The Corning Preserve landscape is an attractive urban riverfront park setting with the Albany city skyline visually prominent to the west. Views to the east across the Hudson River to the City of Rensselaer include the open water of the Hudson River and a mix of wooded riverfront and low-rise urban development on the opposite shore. I-787 and other high traffic roadways paralleling Corning Preserve somewhat diminish the visual experience. River views from this portion of the Heritage Area may be considered to be of moderate to high visual quality.

Viewer Characteristics - The Albany Urban Heritage Area covers a broad urban area that is recognized for its historic, cultural, architectural, governmental and social importance to the State of New York. The downtown area is densely populated. Viewers include city residents, daily workers, shoppers, though travelers and other visitors with business interest in the city. For these viewer types the visual and cultural importance of the Heritage Area is indirect and generally of secondary consideration in their daily activities.

The district also attracts visitors who come to the area to specifically to experience the history and culture of the City. Viewers who visit the Heritage Area to take advantage of interpretive and social resources may be more sensitive to the aesthetic quality of the urban landscape than residents, workers, shoppers or through travelers who are within the boundaries of the Heritage Area for more utilitarian reasons.

*Project Visibility* – The Albany Urban Heritage Area visitor center is located within the downtown area. Outward views are fully enclosed by urban structures and the elevated section of I-787. The Existing Facility (currently approved landfill at completion) is not currently, nor will it not become visible from the visitor center. Similarly, the proposed North Berm Modification will not be visible from the visitor center.

Intermittent glimpses of the Existing Facility are found in isolated locations in the eastern portion of the downtown area through narrow view corridors between buildings and vegetation. Such views are not common. Views are found from the eastern edge of the Empire State Plaza - Plaza Level. Direct views also occur from upper story east facing windows in downtown buildings.



Figures B-1(a-c) include a photograph of the present visual condition (October 2020) and photo simulations illustrating the degree of visibility and visual character of the Existing Facility (currently approved landfill at completion) and proposed Northern Berm Modification (at completion) from the downtown portion of the Heritage Area as viewed from the steps of the NYS Museum at the Empire State Plaza. These photo simulations demonstrate that both the Existing Facility (currently approved landfill at completion) and the proposed North Berm Modification (at completion) are visually similar and display no difference in the degree of visibility or aesthetic character as viewed from this location.

At present, the Existing Facility largely falls below the tree line on the eastern shore of the Hudson River as viewed from most locations along riverfront segment of the Albany Urban Heritage Area. The degree of Project visibility will slowly increase over time until currently approved operations reach the maximum permitted elevation (324 feet amsl). At completion, the Existing Facility will be visible at, or slightly above tree line from the waterfront segment of the Heritage Area between the Livingston Avenue railroad bridge and the Dunn Memorial Bridge. As the proposed North Berm Modification will maintain this currently approved maximum elevation, the proposed Project will be similarly visible from affected areas within along this section of the Heritage Area.

Figures B-2(a-c) include a photograph of the present visual condition (October 2020) and photo simulations illustrating the degree of visibility and visual character of the Existing Facility (currently approved landfill at completion) and proposed Northern Berm Modification (at completion) from the portion of the Heritage Area along the Hudson River waterfront. These photo simulations demonstrate that both the Existing Facility (currently approved landfill at completion) and the proposed North Berm Modification (at completion) are visually similar and display no difference in the degree of visibility or aesthetic character as viewed from this location.

Empire State Trail/Hudson River Valley Greenway Trail (Corning Preserve Trail and Empire State Bike Route 9) – Segments of the Empire State Trail (Mohawk Hudson Bike Trail segment) and the Hudson River Valley Greenway Trail (Corning Preserve Trail and State Bike Route 9) are coterminous along the Hudson River waterfront in the City of Albany. The Hudson River Valley Greenway is a system of parks, trails, kayak/canoe routes, etc. along New York's Hudson River. The Empire State Trail is a 750-mile bike/hike trail network extending from Manhattan north to the Canadian border, and also from Buffalo to Albany.

These trails follow the west side of the Hudson River though the study area from Menands southward through the Corning Preserve. From the Corning Preserve, the trails cross the Dunn Memorial Bridge connecting to an on-road segment along 3rd Avenue in the City of Rensselaer.



At this point the Greenway Trail (State Bike Route 9) continues on-road southward along NY Rte. 9J. The Empire Trail continues on-road southeast along Rte. 151 through the Town of East Greenbush.

The Hudson River Valley Greenway Trail also includes on-water access for paddling opportunities. Boat launches at the Corning Preserve and Rensselaer Riverfront Park are designated Greenway Water Trail access points. The Project is not expected to be visible from either of these boat launches. The project is expected to be minimally visible, if at all, above shoreline vegetation from on-water vantage points.

Visual Character - The waterfront segment of the Empire State Trail/Greenway Trail (Corning Preserve Trail) takes advantage of scenic river views within the linear park setting of the Corning Preserve. The trail landscape is an attractive riverfront urban park setting with the Albany city skyline visually prominent to the west. Views to the east across the Hudson River to the City of Rensselaer include the open water of the river and a mix of wooded riverfront and low-rise urban development on the opposite shore. I-787 and other high traffic roadways paralleling the Corning Preserve somewhat diminish the visual experience. River views from this segment of the Empire State Trail/Greenway Trail (Corning Preserve Trail) may be considered to be of moderate to high visual quality.

The on-road trail segments (Empire State Trail and State Bike Route 9) pass over the high traffic Dunn Memorial Bridge. Sidewalk views from the bridge include the river below, the Albany City skyline, industrial uses in the Ports of Albany and Rensselaer and low-rise residential/commercial uses in the City of Rensselaer. Views from the bridge are filtered through a chain-link fence safety barrier. On-road segments in the City of Rensselaer pass through commercial, retail and industrial sections of the city. Views from the bridge and on-road segments are generally of low visual quality.

*Viewer Characteristics* – Empire State Trail/Greenway Trail users are typically recreational bicyclists, joggers, walkers or passive recreational park visitors. The visual quality of the landscape is typically an important part of the recreational experience.

Project Visibility - At present, the Existing Facility largely falls below the tree line on the eastern shore of the Hudson River as viewed from most locations along riverfront segment of the Empire State Trail/Greenway Trail. The degree of Project visibility will increase over time as currently approved operations reach the maximum permitted elevation (324 feet amsl). At completion the Existing Facility will be visible at, or slightly above tree line from the waterfront segment of these trails between the Livingston Avenue bridge and the Dunn Memorial Bridge. As the proposed North Berm Modification will maintain this currently approved maximum



elevation, the proposed Project will be similarly visible from affected areas within along this section of the Empire State Trail/Greenway Trail.

Figures B-2(a-c) include a photograph of the present visual condition (October 2020) and photo simulations illustrating the degree of visibility and visual character of the Existing Facility (currently approved landfill at completion) and proposed Northern Berm Modification (at completion) from the waterfront segment of the Empire State Trail/Greenway Trail. These photo simulations demonstrate that both the Existing Facility (currently approved landfill at completion) and the proposed North Berm Modification (at completion) are visually similar and display no difference in the degree of visibility or aesthetic character as viewed from this location.

From the Dunn Memorial Bridge the Existing Facility is visible above the tree line. This degree of Project visibility will slowly increase over time until currently approved operations reach the maximum permitted elevation (324 feet amsl). As the proposed North Berm Modification will maintain this currently approved maximum elevation, the proposed Project will be similarly visible from affected areas within along this section of the Empire State Trail/Greenway Trail.

Figures B-3(a-c) include a photograph of the present visual condition (October 2020) and photo simulations illustrating the degree of visibility and visual character of the Existing Facility (currently approved landfill at completion) and proposed Northern Berm Modification (at completion) from the on-road segment of the Empire State Trail/Greenway Trail on the Dunn Memorial Bridge. These photo simulations demonstrate that both the Existing Facility (currently approved landfill at completion) and the proposed North Berm Modification (at completion) are visually similar and display no difference in the degree of visibility or aesthetic character as viewed from this location.

The Project will be fully screened from on-road trail segments in the City of Rensselaer.

<u>Albany-Helderberg Hudson Rail Trail</u> – The Albany Helderberg Rail Trail is a connector trail to the Empire State Trail system. A short on-street segment extends southward from the Corning Preserve along Broadway and South Pearl Street, connecting with the off-road segment trailhead on South Pearl Street near the Normanskill River.

*Visual Character* - South of the Corning Preserve the Albany Helderberg Rail Trail travels on-road along Broadway and South Pearl Street between an elevated section of I-787 and the Kenwood railyards. The visual character of this trail segment is urban industrial with low visual quality.



*Viewer Characteristics* – Albany Helderberg Rail Trail users are typically recreational bicyclists, joggers, walkers or passive recreational park visitors. The visual quality of the landscape is typically an important part of the recreational experience.

Project Visibility – The project will be minimally visible through existing buildings from a short segment of Broadway south of the Corning Preserve. Figures B-4(a-c) include a photograph of the present visual condition (October 2020) and photo simulations illustrating the degree of visibility and visual character of the Existing Facility (currently approved landfill at completion) and proposed Northern Berm Modification (at completion) from the on-road segment of the Albany Helderberg Rail Trail. The project will not be visible from off-road segments of the rail trail. These photo simulations demonstrate that both the Existing Facility (currently approved landfill at completion) and the proposed North Berm Modification (at completion) are visually similar and display no difference in the degree of visibility or aesthetic character as viewed from this location.

## Other Resources of Local Interest

Although not meeting the NYS DEC Visual Policy definition "aesthetically significant place", several other affected locations are included in order to assess project visibility from places of high viewership and/or direct Project visibility. These places include Holy Sepulchre Cemetery, Albany-Rensselaer Amtrak Station and Rensselaer Jr./Sr. High School.

<u>Holy Sepulchre Cemetery</u> – The Holy Sepulchre Cemetery is an informal greenspace located on Partition Street directly adjacent to the existing Dunn Mine C&D Facility. Viewers typically visit the cemetery to visit grave sites, although the cemetery is known for views of the Albany skyline.

At present, the Existing Facility is directly within the foreground view. This degree of Project visibility will slowly increase over time until currently approved operations reach the maximum permitted elevation (324 feet amsl). As the proposed North Berm Modification will maintain this currently approved maximum elevation, the proposed Project will be similarly visible from affected areas within along this section of the cemetery. Photo Simulations from this location are provided in Figures B-5(a-c). These photo simulations demonstrate that both the Existing Facility (currently approved landfill at completion) and the proposed North Berm Modification (at completion) are visually similar and display no difference in the degree of visibility or aesthetic character as viewed from this location.

<u>Albany Rensselaer Amtrak Station</u> – The Albany-Rensselaer Amtrak Station, located on East Street in the City of Rensselaer, is the eight busiest station in the Amtrak system with over



800,000 passengers per year.<sup>5</sup> Although the rail trip south from Albany is known for its scenic views of the Hudson River, visitors to the Amtrak station typically have low sensitivity to its visual setting. The station is located within a mixed use residential and commercial district. The Amtrak railyard/maintenance facility is immediately adjacent to the station.

At present, the Existing Facility is screened by the existing foreground tree line. The Existing Facility (currently approved landfill) will become visible above the tree line over time until currently approved operations reach the maximum permitted elevation (324 feet amsl). Such visibility from the vicinity of the Amtrak Station is not prevalent. Views are limited to a portion of the Herrick Street bridge over the railroad tracks and a small section of the upper deck of the station's parking garage. As the proposed North Berm Modification will maintain this currently approved maximum elevation, the proposed Project will be similarly visible from this affected area. Photo Simulations from this location are provided in Figures B-6(a-c). These photo simulations demonstrate that both the Existing Facility (currently approved landfill at completion) and the proposed North Berm Modification (at completion) are visually similar and display no difference in the degree of visibility or aesthetic character as viewed from this location.

Rensselaer Jr./Sr. High School – The Rensselaer Jr./Sr. High School campus is located on Van Rensselaer Drive directly adjacent to the existing Dunn Mine C&D Facility. The proposed MSE berm was specifically intended to provide an improved visual barrier from school grounds to mine operations and to reclamation land-use solid waste operations as compared to the currently approved land-use plans. With the North Berm in place, Facility operations would not be seen from the areas north of the Facility except at the final stages of reclamation. Without the North Berm (i.e., operations consistent with the approved Existing Facility), direct line-of-sight views of Facility operations would exist for a longer duration.

Viewers are typically students, parents, faculty, staff and other visitors to school grounds. While visitors to the school typically have a low sensitivity to the visual setting, the presence of the adjacent Existing Facility has been identified as a visual distraction. In a Notice of Incomplete Application from the NYS DEC dated September 11, 2019 related to a prior North Berm proposal, the Department commented "[a] narrative evaluation and line of sight profiles should be submitted for 1) the current hillside facing the school, 2) the capped landfill upon completion, and 3) when phase 8 is nearly full but not yet capped (i.e., worst-case scenario; when the waste is 80 feet higher than MSE berm. The evaluation should include simulated photos of the constructed berm including queued trucks, tipper, water cannon and bulldozers,

<sup>&</sup>lt;sup>5</sup> https://en.wikipedia.org/wiki/Albany%E2%80%93Rensselaer station



etc. that might be visible from the school. Several viewpoints should be considered, including the existing baseball field, 3<sup>rd</sup> floor windows, and top of bleachers at the track." <sup>6</sup>

Photo simulations of the requested scenarios are provided as Figures B-7(a-d), B-8(a-d), B-9(a-d). Line-of-sight profiles from the requested locations are provided as Figure C-1 in Appendix C.

## **PHOTO SIMULATIONS**

To illustrate how the Project will appear photo simulations were prepared from nine representative locations. Photo simulation locations are identified in Figure A1 - Photo Simulation Location/Viewshed Map - 3 Mile Radius.

For each location the photo simulation is provided to illustrate the present visual condition and degree of visibility and visual character of the Existing Facility (currently approved landfill at completion) and proposed Northern Berm Modification (at completion). Simulations for locations at Rensselaer Jr./Sr. High School also include Phase 8 operational conditions as specifically requested by NYSDEC.

Photo simulations were developed by superimposing a rendering of a three-dimensional digital terrain model of the Existing Facility (currently approved landfill at completion) and proposed North Berm Modification (at completion) into the base photograph taken from each corresponding visual receptor. The three-dimensional computer model was developed using *Autodesk Civil 3D* and *3D Studio Max Design®* software.

Simulated perspectives (camera views) were matched to the corresponding base photograph for each simulated view by replicating the precise coordinates of the field camera position (as recorded by handheld GPS) and the focal length of the camera lens used (e.g., 50mm). Precisely matching these parameters assures scale accuracy between the base photograph and the subsequent simulated view. The camera's elevation (Z) value is derived from digital elevation model (DEM) data plus the camera's height above ground level. The camera's target position was set to match the bearing of the corresponding existing condition photograph as recorded in the field. With the existing conditions photograph displayed as a "viewport background," and the viewport properties set to match the photograph's pixel dimensions, minor camera adjustments were made (horizontal and vertical positioning, and camera roll) to align the horizon in the background photograph with the corresponding features of the 3D model.

To verify the camera alignment, elements visible within the photograph (e.g., buildings, utility poles, regional terrain, etc.) were identified and digitized from digital orthophotos as needed. Each element was assigned a Z value based on DEM data and then imported into 3D Studio

<sup>&</sup>lt;sup>6</sup> NYSDEC letter to Curt Taylor, S.A. Dunn & Company, September 11, 2019, p.3.



Max. A 3D terrain model was also created (using DEM data) to replicate the existing local topography. The digitized elements were then aligned with corresponding elements in the photograph by adjusting the camera target. If necessary, slight camera adjustments were made for accurate alignment. A daylight system was created matching the exact date and time of each baseline photograph to assure proper shading and shadowing of modeled elements.

Once the camera alignment was verified, a to-scale 3D digital terrain model of the Existing Facility (currently approved landfill at completion) and the proposed North Berm Modification (at completion) was merged into the model space. The 3D model of the Project was constructed in sufficient detail to accurately convey visual character and reveal impacts. The scale, alignment, elevations and location of the visible elements of the Project are true to the conceptual design. Post-production editing (i.e., airbrush out portion of Project that falls below or behind foreground topography and vegetation) was completed using Adobe Photoshop software. The methodology accurately represents the location, height and visual character of the Project.

Photo simulations illustrating the visibility and visual character of the Project from affected vantage points are provided in Appendix B.

## Visual Character of the Proposed Project

The proposed Project would result in a steep-sided meadowed landform that, although consistent in the pattern elements of form, line, color and texture with the visual character of the Existing Facility, is somewhat distinct from the natural topographic and vegetative patterns found in the study region. Consistent with the Existing Facility, when visible within the foreground distance zone (0 to 1/2 mile) the proposed Project may be a dominant or codominant visual element; clearly identifiable as a man-made landform within the context of the surrounding landscape. From middle ground viewing locations (½ mile to 3 miles) the landform low on the horizon will be viewed within the context to the regional landscape and be perceived as less visually distinct.

Consistent with visibility of the Existing Facility during the operational activities, periodically visible construction vehicles and relatively small areas of active land filling would create a contrast in color and texture with the vegetative patterns of the surrounding visible landscape. This contrast would be particularly noticeable from viewpoints located within the foreground distance zone (within ½ mile). With increasing distance visual elements tend to visually merge or join and colors and textures become more muted. When visible from middle ground viewing locations (1/2 to 3 miles) the landform is low to the horizon and viewed within the context to the regional landscape with visual distinctiveness increasingly reduced.



## **SUMMARY AND CONCLUSIONS**

The proposed North Berm Modification includes modifying the northern perimeter berm to include a mechanically stabilized earthen (MSE) berm. The MSE berm will provide an improved visual barrier from areas north and proximate to mine operations and to reclamation land-use solid waste operations as compared to the currently approved land-use plans. With the North Berm in place, Facility operations would not be seen from the areas north of the Facility except at the final stages of reclamation. Without the North Berm (i.e., operations consistent with the approved Existing Facility), direct line-of-sight views of Facility operations would exist for a longer duration.

The North Berm Modification will maintain the maximum elevation of the currently approved landfill (324 feet amsl). The North Berm Modification will remain within the footprint area of the currently approved landfill and will, in fact, reduce the affected footprint. Any visual difference between the Existing Facility and the proposed North Berm Modification is the result of modified final grading along and immediately adjacent to the berm.

Some portion of the Existing Facility is already visible, or will be theoretically visible upon completion of currently permitted operations, from approximately 2.72 percent of the three-mile study area. From these areas the Project does not represent a new visual impact, but rather a continuation of existing approved visibility of Dunn Mine C&D Facility operations. Upon completion of the proposed North Berm Modification, approximately 2.76 percent of the three-mile study area would be affected. This is an increase of approximately .04 percent (approximately 8 acres). These areas are generally small geographic extensions of adjacent lands that are already affected by views of the Existing Facility. In newly affected areas, views will be limited to the upper portions of the North Berm Modification appearing low to the foreground tree line. At a minimum, 97.4 percent of the study area will have no visibility of the Existing Facility or the proposed North Berm Modification.

At present, the Existing Facility largely falls below the tree line on the eastern shore of the Hudson River as viewed from most locations along the City of Albany waterfront. The degree of Project visibility from riverfront vantage points will slowly increase over time until currently approved operations reach the maximum permitted elevation (324 feet amsl). At completion, the Existing Facility will be visible at, or slightly above tree line from the waterfront between the Livingston Avenue railroad bridge and the Dunn Memorial Bridge. As the proposed North Berm Modification will maintain this currently approved maximum elevation, the proposed Project will be similarly visible from affected areas within along this section of the Heritage Area.



Intermittent glimpses of the Existing Facility are found in isolated locations in the eastern portion of downtown Albany through narrow view corridors between buildings and vegetation. Such views are not common. Direct views also occur from upper story east facing windows in downtown buildings.

The proposed North Berm Modification represents a continuation of the visibility of the approved Existing Facility operations. As such the visual patterns and composition of the proposed North Berm Modification will be substantially consistent with what is already seen and/or approved. In most areas, the effect of the proposed action on the surrounding landscape is negligible compared to the Existing Facility (at the end of currently permitted operations). Areas of new visibility are typically small geographic extensions of adjacent lands that are already affected by views of the Existing Facility. In such areas, the upper portions of the proposed Project will appear low to intervening tree line and similar in form, line color and texture with the local landscape.

Impact on Visual Resources of Statewide Significance – The Project will be directly visible from portions of the Albany Urban Heritage Area and short segments of the Empire State Trail and Hudson Valley Greenway Trail (Corning Preserve Trail and State Bike Route 9) along the City of Albany waterfront. These areas are currently affected (or will be affected at completion of the currently approved landfill). In all cases views of the currently approved landfill are low on the visible horizon. Because the proposed North Berm Modification will maintain the currently approved maximum elevation of 324 feet amsl, visibility of the proposed Project will be consistent with portions of the Facility already in view (or will be in view at the end of currently approved operations). From these affected areas the Project does not represent a new visual impact, but rather a continuation of existing visibility of currently approved Dunn Mine C&D Facility operations.

### The NYSDEC Visual Policy states:

"Aesthetic impact occurs when there is a detrimental effect on the perceived beauty of a place or structure. Mere visibility a project should not be a threshold for decision making Instead a project, by virtue of its visibility, must clearly interfere with or reduce the public's enjoyment or appreciation of the appearance of a significant place or structure." Significant aesthetic impacts are those that may cause a diminishment of the public enjoyment and appreciation of an inventoried resource, or one that impairs the character or quality of such a place.

<sup>&</sup>lt;sup>7</sup> NYSDEC Visual Policy (DEP-00-2), p15.



Proposed large facilities by themselves should not be a trigger for a declaration of significance."8

In other words, the DEC Visual Policy recognizes that not everything that is visible rises to the level of an Aesthetic Impact, and not all Aesthetic Impacts rise to the level of a Significant Aesthetic Impact that may diminish public enjoyment of the resource.

When considered within the framework of the DEC Visual Policy's definition of "significant adverse visual impact", it is clear the proposed North Berm Modification will not cause a diminishment of the public enjoyment and appreciation of any scenic or historic resource, or one that impairs the character or quality of such a place. As such, the proposed Project will not result in any adverse visual impact.

Submitted by:

\_\_\_\_\_

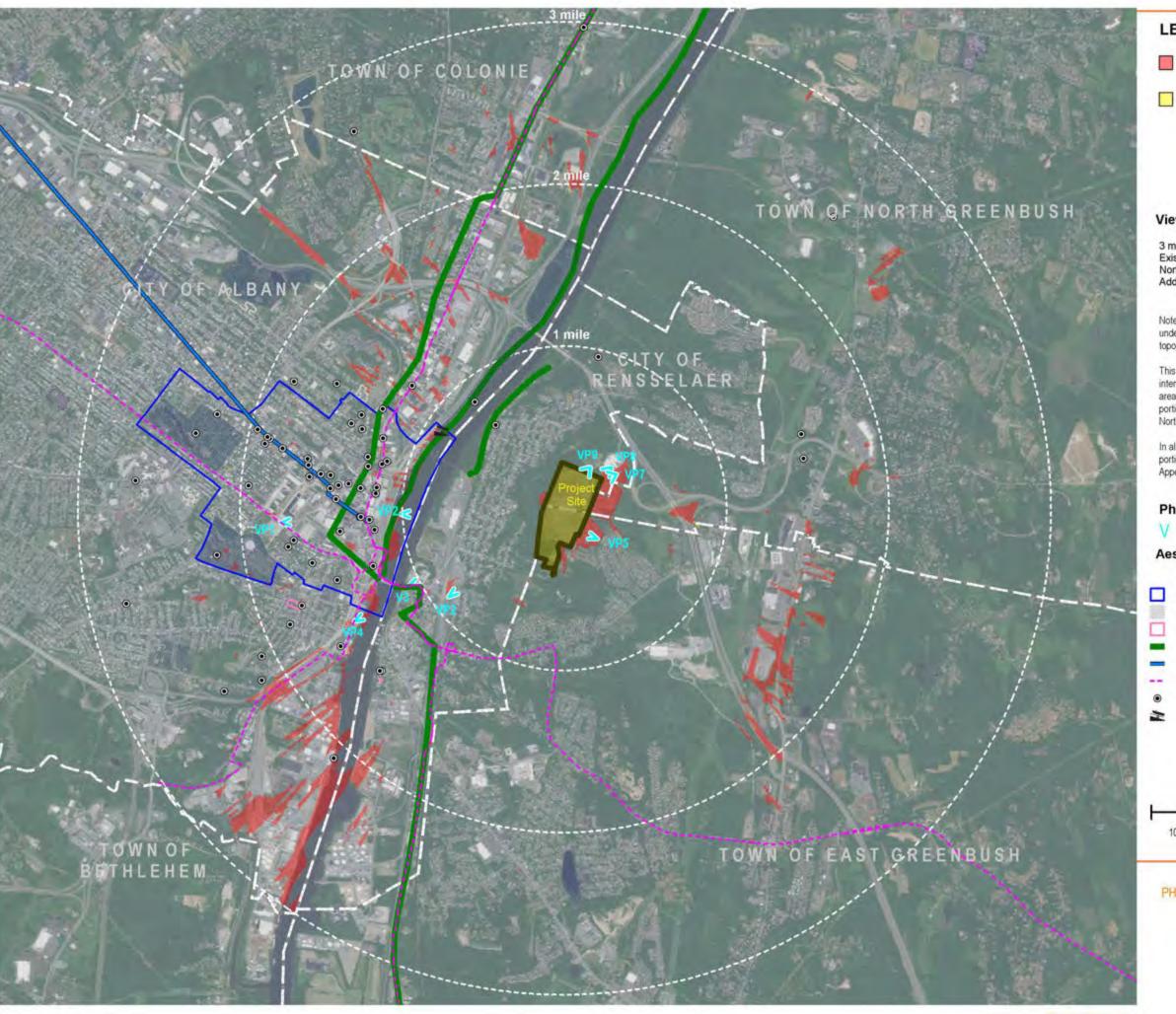
Matthew W. Allen, RLA

<sup>&</sup>lt;sup>8</sup> *Id.* p.5.



## APPENDIX A Viewshed Map





### LEGEND

Theoretical Visibility - Existing Facility & North Berm Modification

Theoretical Visibility - Northern Berm Modification Note: The area of new visibility resulting from construction of the Northern Berm is approximately 8 acres (<0.1 percent of the total land area within the 3- mile study area). These areas are generally small geographic extensions of adjacent lands that are already affected by views of the Existing Facility.

As such areas of increased visibility are virtually indistiguishable on this viewshed map.

### Viewshed Area Summary

Percent Cover Acres 3 mile Study Area 18,094 **Existing Facility** 492 2.72% North Berm Modification 500 2.76% Additional Viewshed Area

Note: Viewshed areas are not definitive. Viewshed mapping provides a general understanding of where the proposed project is theoretically visible based on regional topographic, forest and building cover data sources.

This viewshed map does not gauge how much of the Project would be visible above intervening landform or vegetation, the viewshed maps simply identifies the geographic area within which there is a relatively high probability (theoretical visibility) that some portion of the Existing Facility (at completion of currently approved operations) and the North Berm Modification (at completion) would be visible.

In almost all cases where project visibility is indicated views are limited to the upper portions of the Project landform appearing low to the foreground tree line. Refer to Appendix B for photo simulations illustrating the degree and character of Project visibility.

### **Photo Locations**



Photo Simulation

### **Aesthetic Resources**

Albany Urban Heritage Area

Municipal Recreation Area

State Historic Site

Designated Greenway Trail

Revolutionary Trail Scenic Byway State Bike Route

National Register of Historic Places Site

State Boat Launch

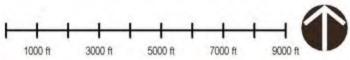


FIGURE A-1 PHOTO SIMULATION LOCATION/VIEWSHED MAP - 3 MILE RADIUS

> Visual Resource Assessment NORTH BERM MODIFICATION Dunn Mine C&D Facility Rensselaer, NY

### APPENDIX B Photo Simulations





**EXISTING CONDITION VIEW** VP1 - Albany Urban Heritage Area (Empire State Plaza)

SARATOGA ASSOCIATES

Photograph Information
Date: October 15, 2020
Time: 4:06PM
Focal Length: 50 mm
Camera: Canon EOS 6D Ma

Canon EOS 6D MarkII

42° 38' 55.4028" N 73° 45' 40.2192" W Photo Location: 8,480 Feet Distance:

This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.

FIGURE B-1a Visual Resource Assessment **NORTH BERM MODIFICATION** Dunn Mine C&D Facility

Rensselaer, NY



SIMULATED VIEW - CURRENTLY PERMITTED LANDFILL FINAL COVER VP1 - Albany Urban Heritage Area (Empire State Plaza)

Photograph Information
Date: October 15, 2020
Time: 4:06PM

Focal Length: Camera: 50 mm Canon EOS 6D MarkII

42° 38' 55.4028" N 73° 45' 40.2192" W Photo Location: 8,480 Feet Distance:

This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.

FIGURE B-1b Visual Resource Assessment **NORTH BERM MODIFICATION** Dunn Mine C&D Facility Rensselaer, NY



SIMULATED VIEW - PROPOSED LANDFILL FINAL COVER VP1 - Albany Urban Heritage Area (Empire State Plaza)

Photograph Information
Date: October 15, 2020
Time: 4:06PM
Focal Length: 50 mm
Camera: Canon EOS 6D Ma

Canon EOS 6D MarkII

42° 38' 55.4028" N 73° 45' 40.2192" W Photo Location: 8,480 Feet Distance:

Visual Resource Assessment **NORTH BERM MODIFICATION** Dunn Mine C&D Facility This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper. Rensselaer, NY



VP2 - Albany Urban Heritage Area/Empire State Trail/Hudson river Valley Greenway Trail (Corning Preserve) - City of Albany

 $S\Lambda RATOG\Lambda$ **ASSOCIATES** 

Photograph Information
Date: October 15, 2020
Time: 3:03PM Focal Length: 50 mm Canon EOS 6D MarkII

Photo Location: Distance:

42° 38' 57.9084" N 73° 44' 48.0336" W 4,570 Feet

Visual Resource Assessment **NORTH BERM MODIFICATION** Dunn Mine C&D Facility This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper. Rensselaer, NY



SIMULATED VIEW - CURRENTLY PERMITTED LANDFILL FINAL COVER VP2 - Albany Urban Heritage Area/Empire State Trail/Hudson river Valley Greenway Trail (Corning Preserve) - City of Albany

 $S\Lambda RATOG\Lambda$ **ASSOCIATES** 

Photograph Information
Date: October 15, 2020
Time: 3:03PM Focal Length: 50 mm Canon EOS 6D MarkII

Photo Location: Distance:

42° 38' 57.9084" N 73° 44' 48.0336" W 4,570 Feet

This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.

FIGURE B-2b Visual Resource Assessment **NORTH BERM MODIFICATION** Dunn Mine C&D Facility Rensselaer, NY



SIMULATED VIEW - PROPOSED LANDFILL FINAL COVER VP2 - Albany Urban Heritage Area/Empire State Trail/Hudson river Valley Greenway Trail (Corning Preserve) - City of Albany

 $S\Lambda RATOG\Lambda$ **ASSOCIATES** 

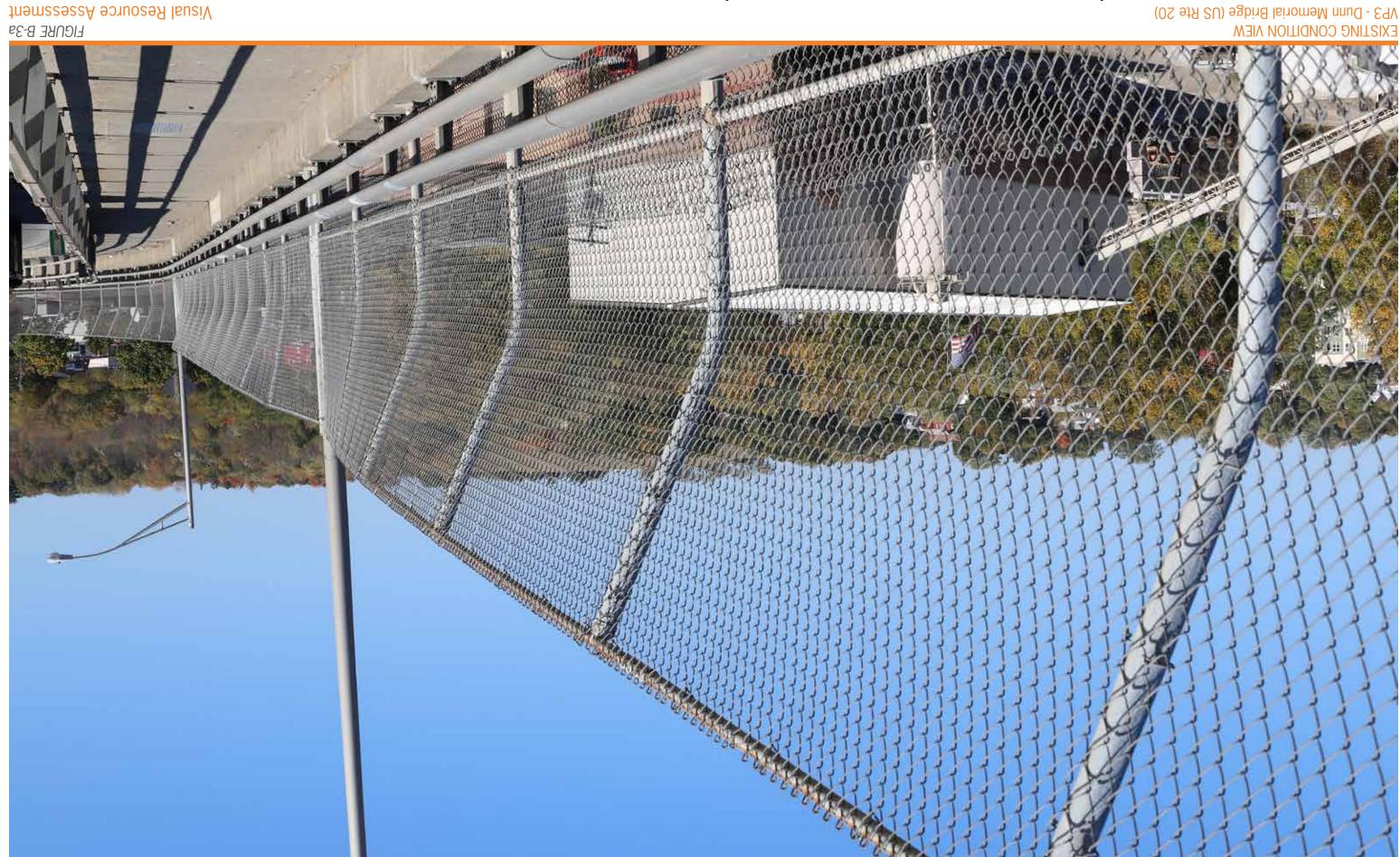
Photograph Information
Date: October 15, 2020
Time: 3:03PM Focal Length: 50 mm Canon EOS 6D MarkII

Photo Location: Distance:

42° 38' 57.9084" N 73° 44' 48.0336" W 4,570 Feet

This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.

FIGURE B-2c Visual Resource Assessment **NORTH BERM MODIFICATION** Dunn Mine C&D Facility Rensselaer, NY



This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.

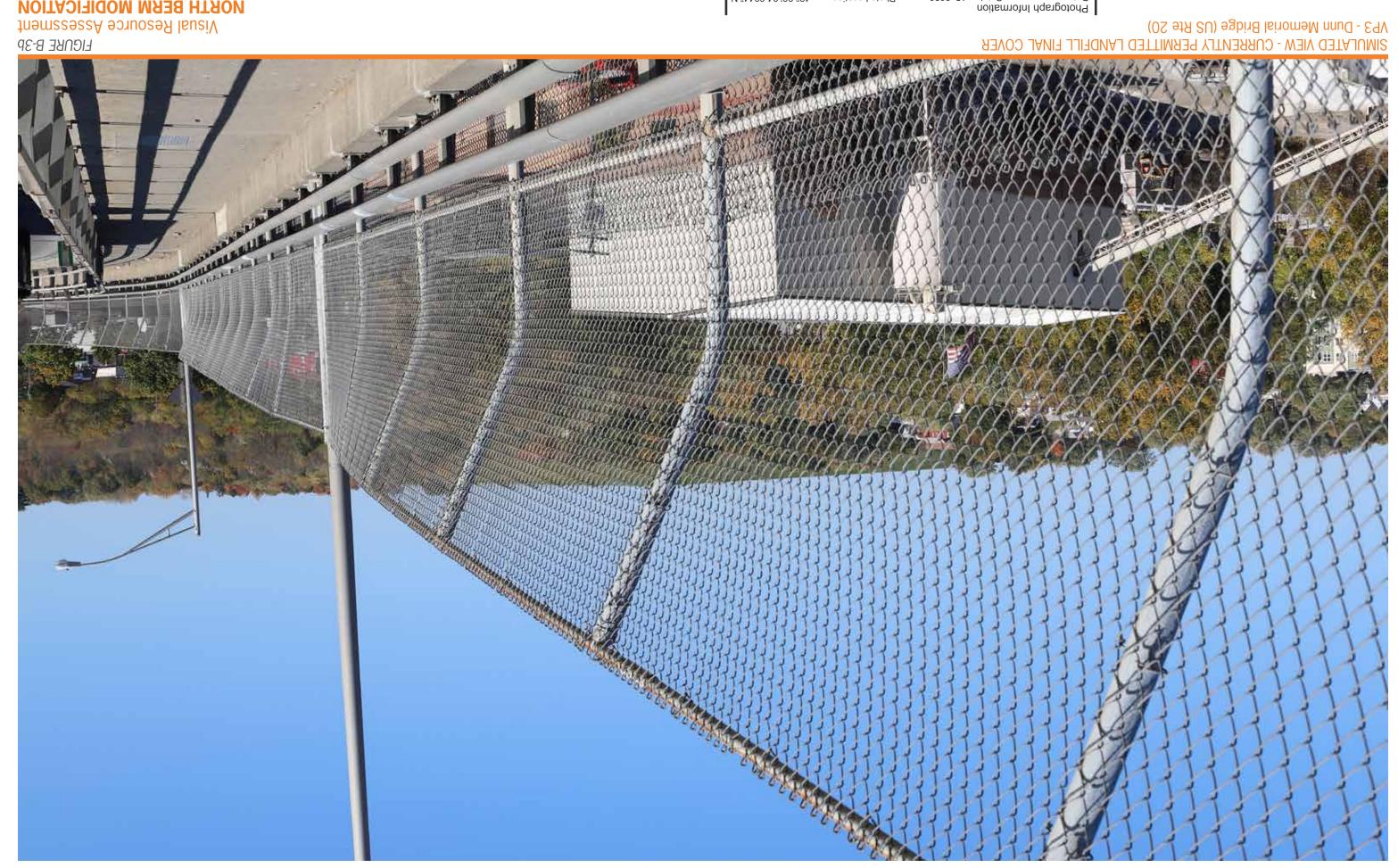
73° 44' 44.6964" W 45° 38' 34.6344" N

Photo Location:

20 mm :əmiT 1:07PM October 15, 2020 Photograph Information

Rensselaer, NY

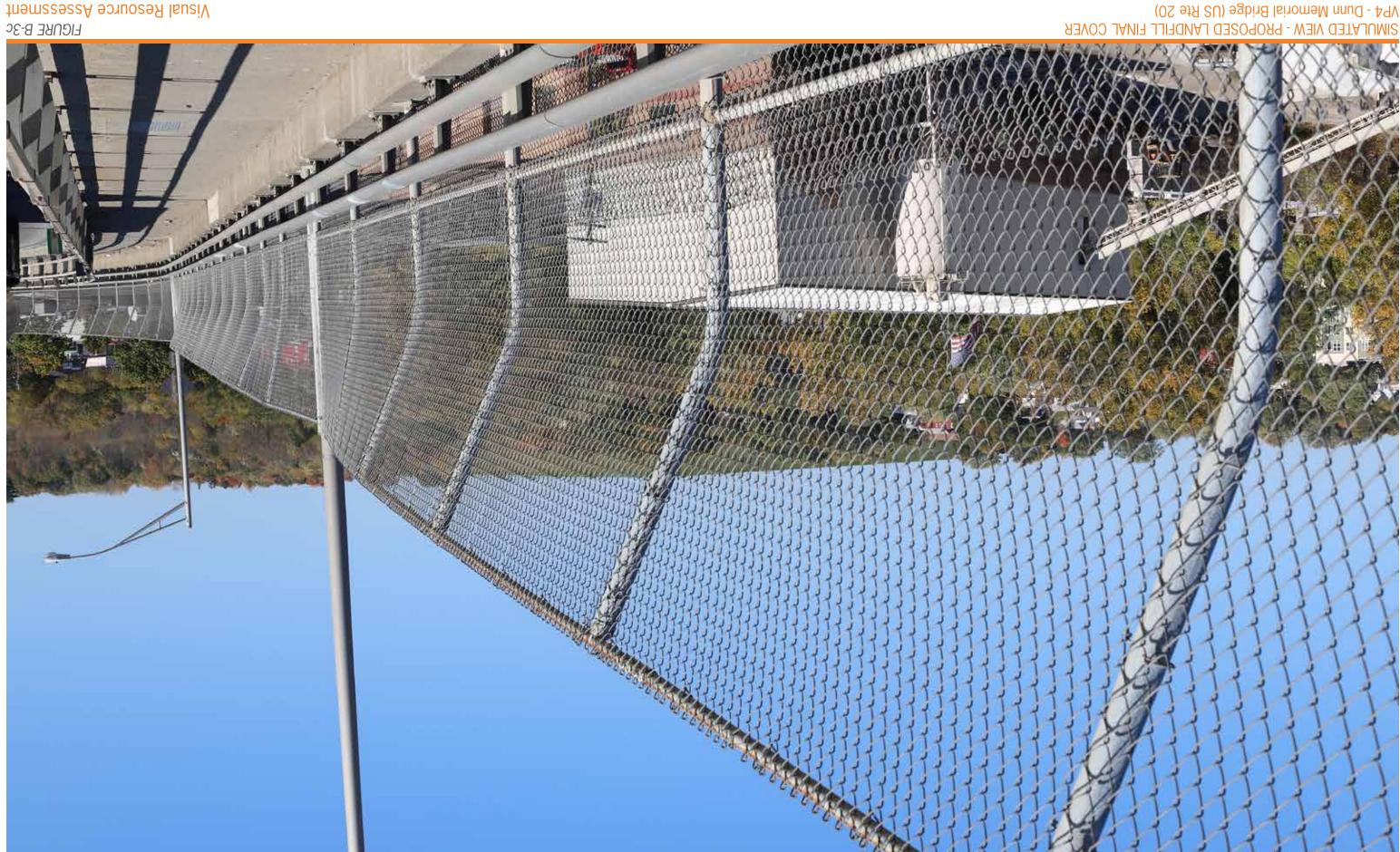
Dunn Mine C&D Facility **NORTH BERM MODIFICATION** 



This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.

73° 44' 44.6964" W Photo Location: 45° 38' 34.6344" N

20 mm :əmiT 1:07PM October 15, 2020



Photograph Information VP4 - Dunn Memorial Bridge (US Rte 20)

This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.

73° 44' 44.6964" W 45° 38' 34.6344" N

Photo Location:

Focal Length: 20 mm :əmiT 1:07PM October 15, 2020

SARATOGA ASSOCIATES



VP4 - Albany-Helderberg Bike Trail (Broadway) - City of Albany

 $S\Lambda RATOG\Lambda$ **ASSOCIATES** 

Photograph Information
Date: October 15, 2020
Time: 2:26PM Focal Length:

Canon EOS 6D MarkII

42° 38' 23.5248" N 73° 45' 08.5536" W Photo Location: 7,010 Feet Distance:

This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.

FIGURE B-4a Visual Resource Assessment **NORTH BERM MODIFICATION** Dunn Mine C&D Facility Rensselaer, NY



SIMULATED VIEW - CURRENTLY PERMITTED LANDFILL FINAL COVER VP4 - Albany-Helderberg Bike Trail (Broadway) - City of Albany

Photograph Information
Date: October 15, 2020
Time: 2:26PM

Focal Length: Canon EOS 6D MarkII

42° 38' 23.5248" N 73° 45' 08.5536" W 7,010 Feet Distance:

Photo Location:

This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.

FIGURE B-4b Visual Resource Assessment **NORTH BERM MODIFICATION** Dunn Mine C&D Facility Rensselaer, NY



SIMULATED VIEW - PROPOSED LANDFILL FINAL COVER VP4 - Albany-Helderberg Bike Trail (Broadway) - City of Albany

Photograph Information
Date: October 15, 2020
Time: 2:26PM

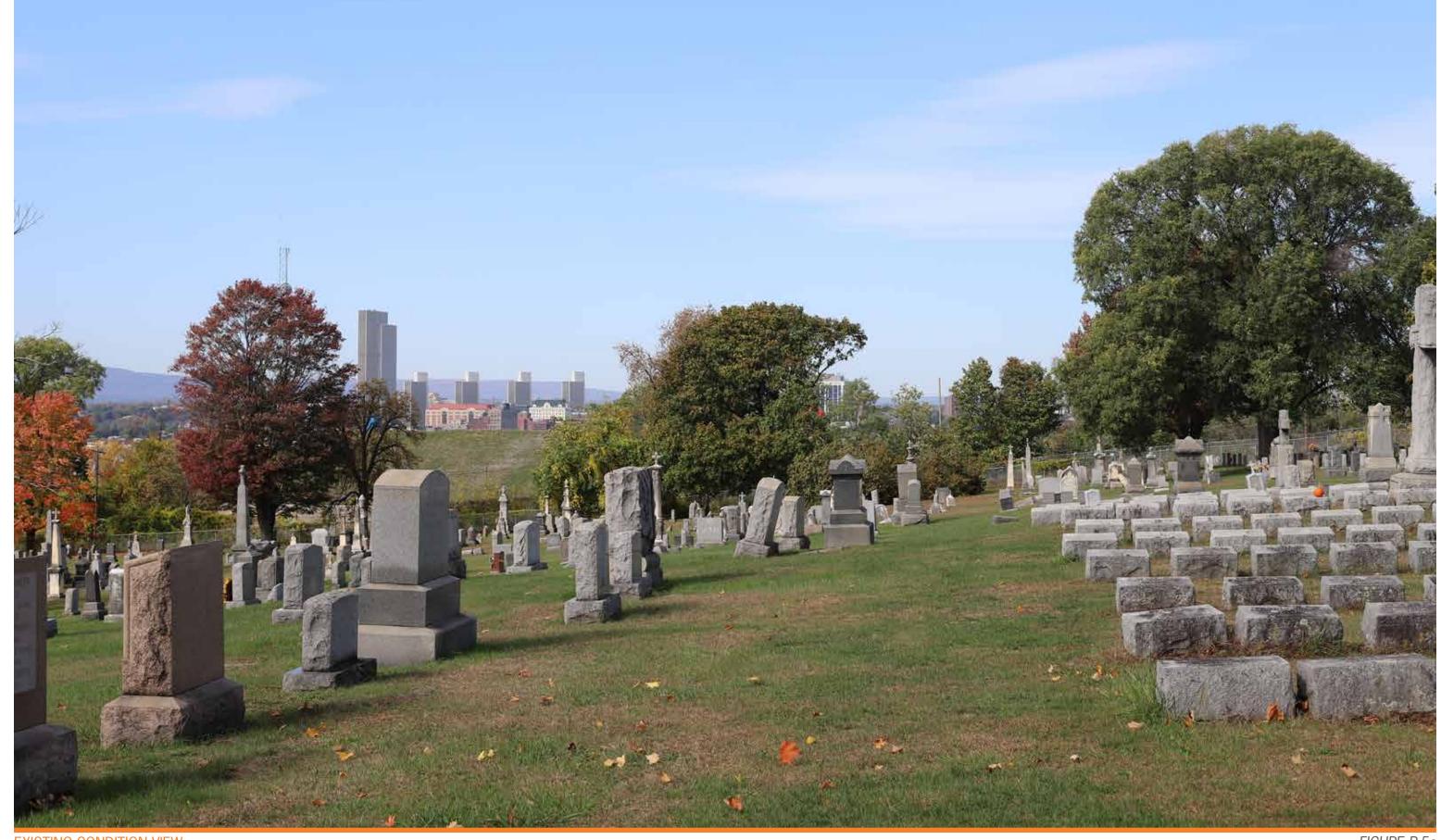
Focal Length: Canon EOS 6D MarkII

42° 38' 23.5248" N 73° 45' 08.5536" W Photo Location: 7,010 Feet

Distance:

This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.

FIGURE B-4c Visual Resource Assessment **NORTH BERM MODIFICATION** Dunn Mine C&D Facility Rensselaer, NY



**EXISTING CONDITION VIEW** VP5 - Holy Sepulchre Cemetery

SARATOGA ASSOCIATES

Photograph Information
Date: October 15, 2020
Time: 11:17AM
Focal Length: 50 mm
Camera: Canon EOS 6D Ma

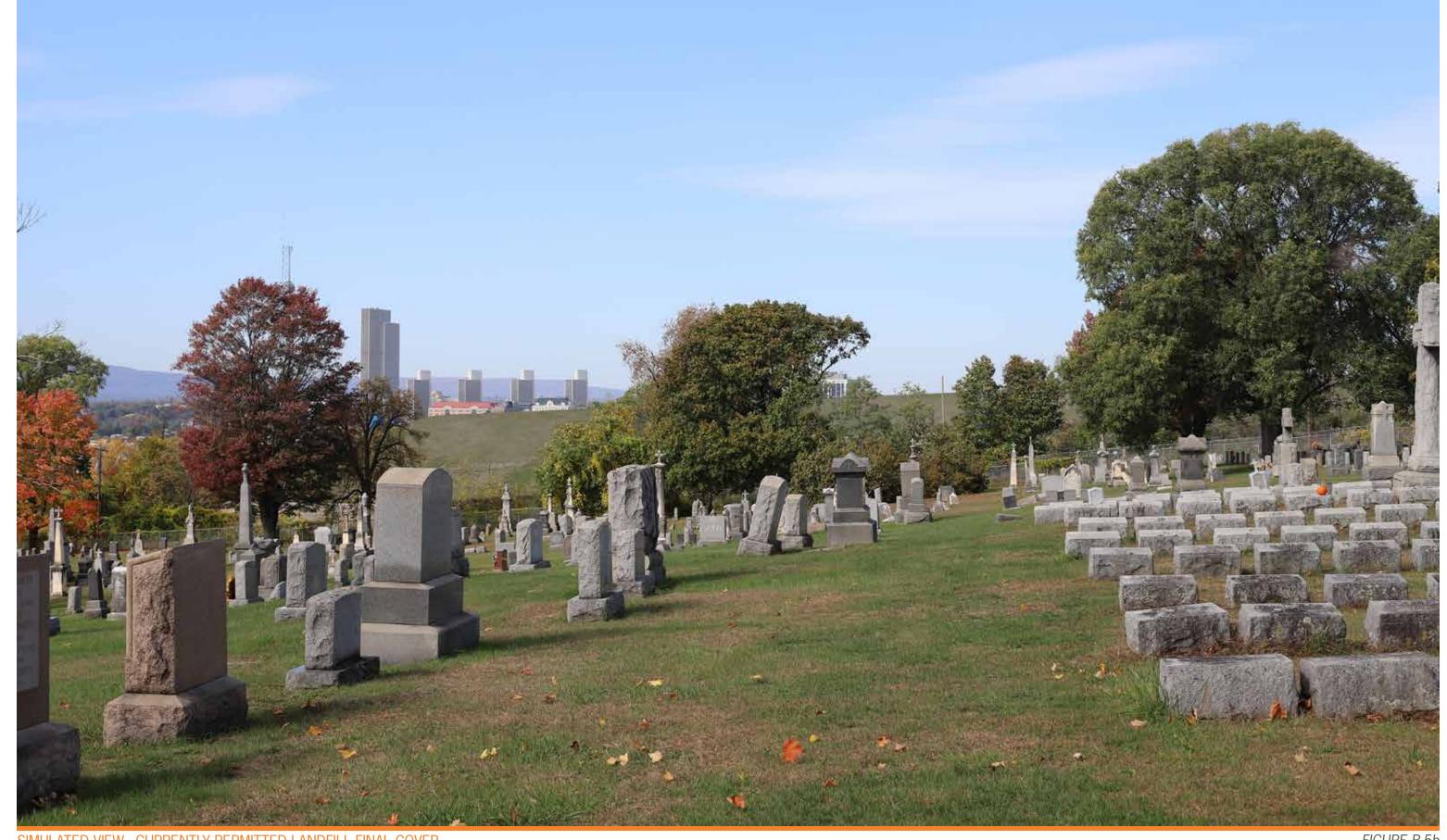
Canon EOS 6D MarkII

Photo Location: Distance:

42° 38' 49.2252" N 73° 43' 22.1484" W 660 Feet

This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.

FIGURE B-5a Visual Resource Assessment **NORTH BERM MODIFICATION** Dunn Mine C&D Facility Rensselaer, NY



SIMULATED VIEW - CURRENTLY PERMITTED LANDFILL FINAL COVER VP5 - Holy Sepulchre Cemetery

SARATOGA ASSOCIATES

Photograph Information
Date: October 15, 2020
Time: 11:17AM
Focal Length: 50 mm
Camera: Canon EOS 6D Ma

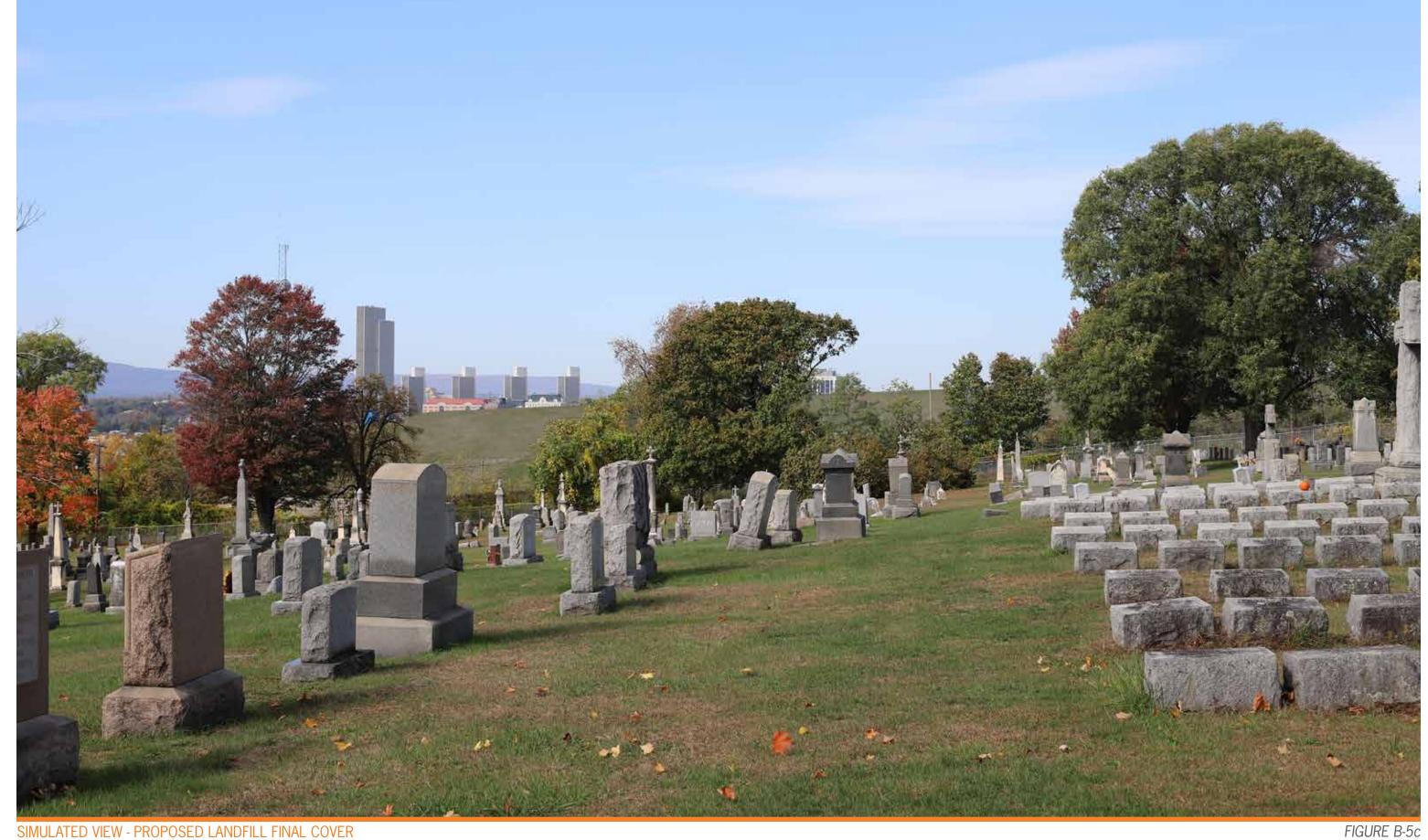
Canon EOS 6D MarkII

Photo Location:

42° 38' 49.2252" N 73° 43' 22.1484" W

This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.

FIGURE B-5b Visual Resource Assessment **NORTH BERM MODIFICATION** Dunn Mine C&D Facility Rensselaer, NY



SIMULATED VIEW - PROPOSED LANDFILL FINAL COVER VP5 - Holy Sepulchre Cemetery

Photograph Information
Date: October 15, 2020
Time: 11:17AM
Focal Length: 50 mm
Camera: Canon EOS 6D Ma

Canon EOS 6D MarkII

Photo Location:

42° 38' 49.2252" N 73° 43' 22.1484" W

**NORTH BERM MODIFICATION** This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.

Visual Resource Assessment

Dunn Mine C&D Facility

Rensselaer, NY



**EXISTING CONDITION VIEW** VP6 - Albany-Rensselaer Amtrak Station

SARATOGA ASSOCIATES

Photograph Information
Date: October 15, 2020
Time: 12:45PM
Focal Length: 50 mm
Camera: Canon EOS 6D Ma

Canon EOS 6D MarkII

Photo Location: Distance:

42° 38' 31.0128" N 73° 44' 27.3624" W 3,760 Feet

Visual Resource Assessment **NORTH BERM MODIFICATION** Dunn Mine C&D Facility This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper. Rensselaer, NY



SIMULATED VIEW - CURRENTLY PERMITTED LANDFILL FINAL COVER VP6 - Albany-Rensselaer Amtrak Station

Photograph Information
Date: October 15, 2020
Time: 12:45PM
Focal Length: 50 mm
Camera: Canon EOS 6D Ma

Canon EOS 6D MarkII

Distance:

Photo Location:

42° 38' 31.0128" N 73° 44' 27.3624" W 3,760 Feet

FIGURE B-6b Visual Resource Assessment **NORTH BERM MODIFICATION** Dunn Mine C&D Facility Rensselaer, NY



SIMULATED VIEW - PROPOSED LANDFILL FINAL COVER VP6 - Albany-Rensselaer Amtrak Station

Photograph Information
Date: October 15, 2020
Time: 12:45PM
Focal Length: 50 mm
Camera: Canon EOS 6D Ma

Canon EOS 6D MarkII

42° 38' 31.0128" N 73° 44' 27.3624" W Photo Location: 3,760 Feet Distance:

This photograph was taken using a 50mm normal lens. To appear at the correct scale this page is intended to be viewed approximately 18 inches from the reader's eye when printed on 11"x17" paper.

FIGURE B-6c Visual Resource Assessment **NORTH BERM MODIFICATION** Dunn Mine C&D Facility Rensselaer, NY



EXISTING CONDITION VIEW VP7 - Rensselaer High School Bleachers

Photograph Information
Date: October 03, 2019
Time: 9:27AM
Focal Length: 24 mm
Camera: Canon EOS 6D Ma

Distance: Canon EOS 6D MarkII

Photo Location:

42° 39' 10.0000" N 73° 43' 13.7000" W 560 Feet

Visual Resource Assessment NORTH BERM MODIFICATION Dunn Mine C&D Facility Rensselaer, NY This photograph was taken using a 24mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 11 inches from the reader's eye when printed on 11"x17" paper.



SIMULATED VIEW - CURRENTLY PERMITTED LANDFILL FINAL COVER VP7 - Rensselaer High School Bleachers

Photograph Information
Date: October 03, 2019
Time: 9:27AM

Focal Length: 24 mm Canon EOS 6D MarkII

42° 39' 10.0000" N 73° 43' 13.7000" W Photo Location: 560 Feet Distance:

This photograph was taken using a 24mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 11 inches from the reader's eye when printed on 11"x17" paper.

FIGURE B-7b Visual Resource Assessment NORTH BERM MODIFICATION Dunn Mine C&D Facility Rensselaer, NY



SIMULATED VIEW - PHASE 8 BERM CONSTRUCTION & LANDFILL OPERATION VP7 - Rensselaer High School Bleachers

Photograph Information
Date: October 03, 2019
Time: 9:27AM

Focal Length:

24 mm Canon EOS 6D MarkII

42° 39' 10.0000" N 73° 43' 13.7000" W Photo Location: 560 Feet Distance:

This photograph was taken using a 24mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 11 inches from the reader's eye when printed on 11"x17" paper.

FIGURE B-7c Visual Resource Assessment NORTH BERM MODIFICATION Dunn Mine C&D Facility Rensselaer, NY



SIMULATED VIEW - COMPLETED LANDFILL CONSTRUCTION VP7 - Rensselaer High School Bleachers

Photograph Information
Date: October 03, 2019
Time: 9:27AM
Focal Length: 24 mm
Camera: Canon EOS 6D Ma

Canon EOS 6D MarkII

Photo Location: Distance:

42° 39' 10.0000" N 73° 43' 13.7000" W 560 Feet

Visual Resource Assessment NORTH BERM MODIFICATION Dunn Mine C&D Facility Rensselaer, NY This photograph was taken using a 24mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 11 inches from the reader's eye when printed on 11"x17" paper.



**EXISTING CONDITION VIEW** VP8 - Rensselaer High School Main Building

SARATOGA ASSOCIATES

Photograph Information
Date: October 03, 2019
Time: 9:12AM

Focal Length:

24 mm Canon EOS 6D MarkII

42° 39' 12.2277" N 73° 43' 15.9756" W Photo Location: 520 Feet Distance:

This photograph was taken using a 24mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 11 inches from the reader's eye when printed on 11"x17" paper.

FIGURE B-8a Visual Resource Assessment NORTH BERM MODIFICATION Dunn Mine C&D Facility Rensselaer, NY



SIMULATED VIEW - CURRENTLY PERMITTED LANDFILL FINAL COVER VP8 - Rensselaer High School Main Building

SARATOGA ASSOCIATES

Photograph Information
Date: October 03, 2019
Time: 9:12AM Focal Length:

24 mm Canon EOS 6D MarkII

42° 39' 12.2277" N 73° 43' 15.9756" W Photo Location: 520 Feet Distance:

This photograph was taken using a 24mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 11 inches from the reader's eye when printed on 11"x17" paper.

FIGURE B-8b Visual Resource Assessment **NORTH BERM MODIFICATION** Dunn Mine C&D Facility Rensselaer, NY



SIMULATED VIEW - PHASE 8 BERM CONSTRUCTION & LANDFILL OPERATION VP8 - Rensselaer High School Main Building

Photograph Information
Date: October 03, 2019
Time: 9:12AM Focal Length:

42° 39' 12.2277" N 73° 43' 15.9756" W 520 Feet

FIGURE B-8c Visual Resource Assessment **NORTH BERM MODIFICATION** Dunn Mine C&D Facility Rensselaer, NY



SIMULATED VIEW - COMPLETED LANDFILL CONSTRUCTION VP8 - Rensselaer High School Main Building

SARATOGA ASSOCIATES

Photograph Information
Date: October 03, 2019
Time: 9:12AM

Focal Length: 24 mm Canon EOS 6D MarkII Photo Location: Distance:

42° 39' 12.2277" N 73° 43' 15.9756" W 520 Feet

Visual Resource Assessment **NORTH BERM MODIFICATION** Dunn Mine C&D Facility This photograph was taken using a 24mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 11 inches from the reader's eye when printed on 11"x17" paper. Rensselaer, NY



**EXISTING CONDITION VIEW** VP9 - Rensselaer High School Ball Field

Photograph Information
Date: October 03, 2019
Time: 9:20AM
Focal Length: 24 mm
Camera: Canon EOS 6D Ma

Canon EOS 6D MarkII

42° 39' 12.3000" N 73° 43' 25.1000" W 220 Feet Photo Location:

This photograph was taken using a 24mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 11 inches from the reader's eye when printed on 11"x17" paper.

FIGURE B-9a Visual Resource Assessment **NORTH BERM MODIFICATION** Dunn Mine C&D Facility Rensselaer, NY



SIMULATED VIEW - CURRENTLY PERMITTED LANDFILL FINAL COVER VP9 - Rensselaer High School Ball Field

Photograph Information
Date: October 03, 2019
Time: 9:20AM
Focal Length: 24 mm
Camera: Canon EOS 6D Ma

Canon EOS 6D MarkII

42° 39' 12.3000" N 73° 43' 25.1000" W Photo Location: 220 Feet

This photograph was taken using a 24mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 11 inches from the reader's eye when printed on 11"x17" paper.



SIMULATED VIEW - PHASE 8 BERM CONSTRUCTION & LANDFILL OPERATION VP9 - Rensselaer High School Ball Field

Photograph Information
Date: October 03, 2019
Time: 9:20AM
Focal Length: 24 mm
Camera: Canon EOS 6D Ma

Canon EOS 6D MarkII

42° 39' 12.3000" N 73° 43' 25.1000" W

Photo Location:

Visual Resource Assessment **NORTH BERM MODIFICATION** Dunn Mine C&D Facility Rensselaer, NY



SIMULATED VIEW - COMPLETED LANDFILL CONSTRUCTION VP9 - Rensselaer High School Ball Field

Photograph Information
Date: October 03, 2019
Time: 9:20AM
Focal Length: 24 mm
Camera: Canon EOS 6D Ma

Canon EOS 6D MarkII

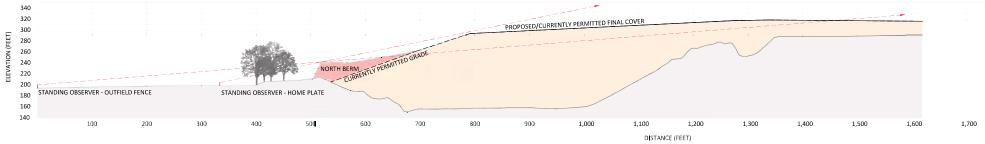
42° 39' 12.3000" N 73° 43' 25.1000" W 220 Feet

Photo Location:

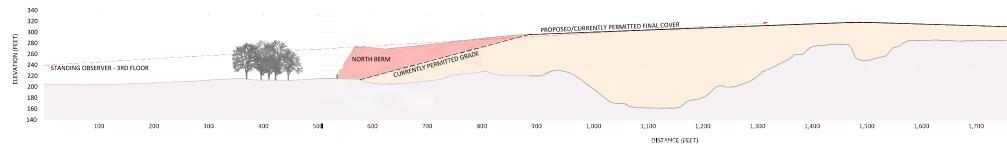
This photograph was taken using a 24mm wide angle lens. To appear at the correct scale this page is intended to be viewed approximately 11 inches from the reader's eye when printed on 11"x17" paper.

# APPENDIX C Rensselaer Jr./Sr. High School Line-of-Sight Profiles

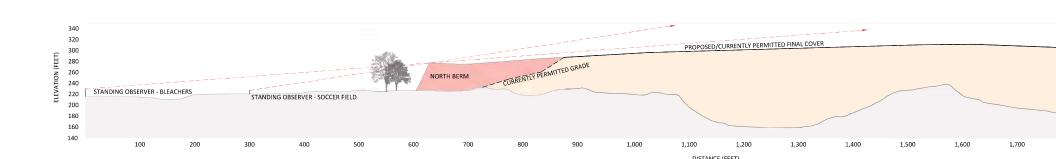




Line-of-Sight A - Ball Field



**Line-of-Sight B - School Building** 



# APPENDIX F

- Current Mitigation of Off-site Impacts
  - O Appendix F1: VOC and Particulate Sampling
  - O Appendix F2: Lead Hazard Screening

### **Dunn Mining and Construction & Demolition Debris Facility**

# **Appendix F to the EAF: Current Mitigation of Potential Offsite Impacts**

#### I. Overview of the Dunn Mining and Construction & Demolition Debris Facility

S.A. Dunn & Company, LLC (S.A. Dunn) owns and operates a sand and gravel mine and construction and demolition debris (C&D) disposal facility (Dunn Facility or Facility). The Facility, which spans about 90 acres, is located in the City of Rensselaer and the Town of North Greenbush, New York. Sand and gravel mining has occurred on the site since at least the late nineteenth century, and C&D disposal operations commenced in 2015. C&D disposal supports reclamation of the mine in accordance with State law.

#### **II.** Mitigation of Potential Offsite Impacts

The Dunn Facility currently employs numerous means of controlling air emissions and dust and mitigating the potential for offsite impacts, and is subject to strict oversight by the New York State Department of Environmental Conservation (NYSDEC). These and other measures set forth in the Facility's permit and dust control plan are described below.

#### A. Requirements of the Current NYSDEC Permit

The Dunn Facility operates in accordance with a permit issued by NYSDEC under Article 23, Title 27, Mined Land Reclamation, and Article 27, Title 7, Solid Waste Management, of the Environmental Conservation Law (NYSDEC Permit #4-3899-00006). The permit imposes the following conditions on the Facility's operations:

- Only permitted C&D may be accepted at the Facility, including bricks, concrete and other masonry materials, soil and rock, wood, land clearing debris, wall coverings, plaster, drywall, plumbing fixtures, non-asbestos insulation, roofing shingles and other roof coverings, asphalt pavement, glass, plastics not containing other waste, electrical wiring, piping, metal. Materials not accepted for disposal include friable asbestos waste, municipal solid waste, electrical fixtures containing hazardous liquids such as fluorescent light ballasts or transformers, appliances, tires drums or other containers greater than ten gallons in size, fuel tanks or any other material not meeting the regulatory definition of construction and demolition debris. All waste loads are inspected to identify and reject unacceptable wastes.
- The Facility operates in accordance with agency-approved solid waste management and mine land reclamation plans.
- The Facility funds a full-time independent environmental monitor, who is hired and overseen by NYSDEC.

- Construction and operation of the Facility is limited to Monday through Friday from 6:30 am to 5:30 pm, excluding federal holidays.
- The Facility has a leachate collection system. Accumulated leachate is removed for proper treatment.
- The Facility has installed an enhanced gas collection and control system to control fugitive emissions of hydrogen sulfide (H<sub>2</sub>S) and other landfill gases. The system is comprised of vertical gas collection wells in the waste mass, as well as gas collection from the leachate collection system. Gas is collected and sent to a permanent flare to destroy odorous gases. The system is adjusted and monitored to ensure continuous removal and destruction of landfill gases.
- The Facility has developed and implements a state-of-the-art dust control plan (described in further detail below).
- The Facility has established a 24-hour odor complaint telephone and email reporting hotline, and investigates all complaints received.
- The Facility is limited to 100 truck round trips per day for the purpose of mining activities, C&D disposal, and construction activities (except light duty or smaller trucks) or leachate hauling.

#### **B.** Dust Control Plan

In consultation with a nationally recognized dust control expert, the Dunn Facility has developed and implements an enhanced dust control plan that helps prevent and minimize fugitive dust and particulates. The dust control plan is being submitted with this permit renewal application. As a principle measure of dust control, the Facility places matting, hydromulch or other cover (e.g., stone, grass) on inactive areas. In excess of 75% of the Facility is protected in this manner, greatly minimizing the potential for dust creation. These cover systems are regularly inspected and maintained.

In addition to cover systems, S.A. Dunn implements the following dust control measures consistent with the Facility's permit and dust control plan:

- Internal speed limit of 10 miles per hour.
- Tire washing of outbound vehicles prior to exiting the site.
- Street sweeping on Partition Street twice daily, and on the internal paved roadways at the Facility.
- Use of water truck on internal paved and unpaved roads, as well as along a portion of Partition Street during dry conditions.

- Use of alternative, approved dust palliatives during freezing conditions when use of water for dust control is not feasible.
- Use of truck tipper sprayer and/or misting cannon during C&D disposal operations.
- Stabilization of exposed slopes.
- Installation of snow and/or sand fencing along the crest of the west-facing mine slope.
- Installation of litter control fencing around the perimeter of the facility, which also acts as a windbreak that can provide additional dust control.
- Installation of vegetative buffer along the southern perimeter of the Facility, and proposed installation of an elevating berm (with vegetative components) along the northern perimeter, which will provide additional visual and dust control.
- Regular design review and inspection of internal truck routes to minimize the potential for dust creation.
- High wind mitigation, such as reduced or temporary cessation of operations.
- Use of meteorological monitoring station to assist in identifying potential dust conditions (e.g., wind velocity) and necessity of implementing additional dust mitigation measures.
- Additional limitations on mining operations during seasonable high-wind periods, including in relation the open mine area, mine face height, and stock pile locations and size.

#### **III. Sampling and Air Monitoring Efforts**

Under the Dunn Facility's current permit, dust control plan, and operations, S.A. Dunn effectively mitigates the potential for offsite impacts. Recent monitoring and sampling by state and city agencies and S.A. Dunn for hydrogen sulfide, particulates, lead, and per-and polyfluoroalkyl substances (PFAS) confirm the efficacy of these measures.

#### A. Hydrogen Sulfide Monitoring

H<sub>2</sub>S is the primary odorous gas generated from the decomposition of organic matter, including organic components of C&D. New York State has established an ambient air quality standard for H<sub>2</sub>S of 0.010 parts per million (ppm), averaged over any one-hour period.

Beginning in 2019, NYSDEC has installed monitors called Acrulog samplers at several locations near the perimeter of the Dunn Facility (shown in the figure below) as a screening tool for detecting H<sub>2</sub>S odor episodes in the surrounding community.



The results of this monitoring for 2019, 2020, and 2021 (also summarized below) are reported on NYSDEC's website: <a href="https://www.dec.ny.gov/chemical/117071.html#Odor">https://www.dec.ny.gov/chemical/117071.html#Odor</a>. According to NYSDEC, the monitors can register diesel exhaust and some common gases such as carbon monoxide, nitrogen oxides, and sulfur dioxide that can interfere with the accuracy of their results by increasing the apparent H<sub>2</sub>S concentration. Thus the readings are likely conservative and overestimate H<sub>2</sub>S from the Dunn Facility. The monitors are not used during colder periods as they do not function well in freezing conditions.

#### 1. 2019 Results

From April to November 21, 2019, NYSDEC collected  $H_2S$  measurements from five locations around the Dunn Facility. NYSDEC noted that the number of occurrences when  $H_2S$  was even detected was very low. On only a few dates did the monitors measure  $H_2S$  above 0.010 ppm for consecutive 10-minute readings. NYSDEC summarized its 2019 results as follows:

- Cemetery location: 0.29% (88 of 30,325 observations) of the readings detected H<sub>2</sub>S, and the maximum 10-minute reading was 0.050 ppm.
- Soccer Field location: 0.31% (96 of 31,323 observations) of the readings detected H<sub>2</sub>S, and the maximum 10-minute reading was 0.052 ppm.
- Baseball Field location: 0.86% (268 of 31,333 observations) of the readings detected H<sub>2</sub>S and the maximum 10-minute reading was 0.420 ppm.

- 9th Street location: 0.011% (2 of 18,141 observations) of the readings detected H<sub>2</sub>S, and the maximum 10-minute reading was 0.003 ppm. On August 14, this monitor was moved to the Garden Place location.
- Garden Place location: 0.24% (28 of 11,850 observations) of the readings detected H<sub>2</sub>S, and the maximum 10-minute reading was 0.009 ppm.

#### 2. 2020 Results

From April 6, 2020, to October 28, 2020, NYSDEC collected H<sub>2</sub>S measurements from three locations around the Dunn Facility. NYSDEC explained that the number of occurrences and concentrations when H<sub>2</sub>S was detected—summarized below—continued to be very low:

- Soccer Field location: 2.0% (521 of 26,101 observations) of the readings detected H<sub>2</sub>S and the maximum 10-minute reading was 0.016 ppm.
- Baseball Field location: 3.5% (907 of 25,785 observations) of the readings detected H<sub>2</sub>S and the maximum 10-minute reading was 0.036 ppm.
- Cemetery location: 1.3% (288 of 22,468 observations) of the readings detected H<sub>2</sub>S and the maximum 10-minute reading was 0.128 ppm.

#### 3. 2021 Results

On June 30, 2021, NYSDEC re-installed Acrulog samplers at three locations around the Dunn Facility. NYSDEC has reported data through August 30, 2021, and stated that the number of occurrences and concentrations when H<sub>2</sub>S was detected continued to be very low:

- Soccer Field location: 0.40% (35 of 8,728 observations) of the readings detected H<sub>2</sub>S and the maximum 10-minute reading was 0.031 ppm.
- Baseball Field location: 0.42% (37 of 8,740 observations) of the readings detected H<sub>2</sub>S and the maximum 10-minute reading was 0.039 ppm.
- Cemetery location: 0.04% (1 of 2,741 observations) of the readings detected H<sub>2</sub>S and the maximum 10-minute reading was 0.003 ppm.

Again, although very low to begin with, these reported results likely overestimate  $H_2S$  from the Facility as the monitors can also register diesel exhaust and other common gases that can artificially increase the apparent  $H_2S$  concentration.

#### B. Dust, Particulate, and VOC Monitoring

In addition to regular visits to the Dunn Facility to inspect for potential dust releases, on July 27, 2019, NYSDEC began monitoring for offsite particulate concentrations at the Rensselaer City School to the north of the Facility. The monitor collects hourly measurements of particulate matter less than 10 microns in size ( $PM_{10}$ ). The location of the  $PM_{10}$  monitor is shown

in the figure above. The National Ambient Air Quality Standard (NAAQS) for  $PM_{10}$  is 150 micrograms per cubic meter ( $\mu g/m^3$ ) for a 24-hour average (daily).

Because particles in this size range are light enough to remain suspended, they can travel from upwind areas. Thus, a portion of the  $PM_{10}$  measured reflects transport of particles from activities outside the area that are not related to the Dunn Facility. To determine local particulate concentrations, a comparison was made with particulate measurements collected at the Albany County Health Department (directly across the Hudson River from the Facility).

During 2019 and 2020, both monitors measured concentrations well below the NAAQS for  $PM_{10}$ . And the data collected to date at the Rensselaer City School show, with minor exceptions,  $PM_{10}$  concentrations to be consistently lower than current measurements across the Hudson River in the City of Albany. This indicates that the Dunn Facility is not a significant source of local  $PM_{10}$ .

NYSDEC also conducted air sampling for volatile organic compounds (VOCs) from October 30, 2019, to January 16, 2020, and speciated analysis (for specific elemental components) of  $PM_{10}$  from October 12, 2019, to December 8, 2019, on the roof of the Rensselaer City School. NYSDEC concluded that the VOC samples showed that the air quality at the school is typical of the general air quality for a suburban area; and the air concentrations for the  $PM_{10}$  mass and associated elemental components were low and similar to measurements at an identical monitor in Loudonville, New York, during the same time period. According to NYSDEC, the sampling results do not appear to indicate that Facility operations are measurably increasing the levels of  $PM_{10}$  and VOCs monitored at the school above levels measured at other NYSDEC monitors.

The results of the dust, particulate, and VOC monitoring are summarized on the NYSDEC website (<a href="https://www.dec.ny.gov/chemical/117071.html#Odor">https://www.dec.ny.gov/chemical/117071.html#Odor</a>) and in an April 28, 2020 letter from the NYSDEC to the Rensselaer City School District. The April 28 letter can be found at <a href="https://cdn.wasteconnections.com/cms/sa-dunn-landfill/DEC\_Dunn\_Letter04-28-2020.PDF">https://cdn.wasteconnections.com/cms/sa-dunn-landfill/DEC\_Dunn\_Letter04-28-2020.PDF</a> and is also included in Appendix B for convenience.

#### C. Lead Testing

In April 2019, the Rensselaer Department of Health conducted a lead hazard screen at internal locations at the Rensselaer City School following U.S. EPA approved protocols. Exterior samples were also analyzed to reflect "worst-case" conditions. No lead was found in any of the samples, which were considered representative of other areas throughout the school property. The results of the lead hazard screen are included in Appendix C.

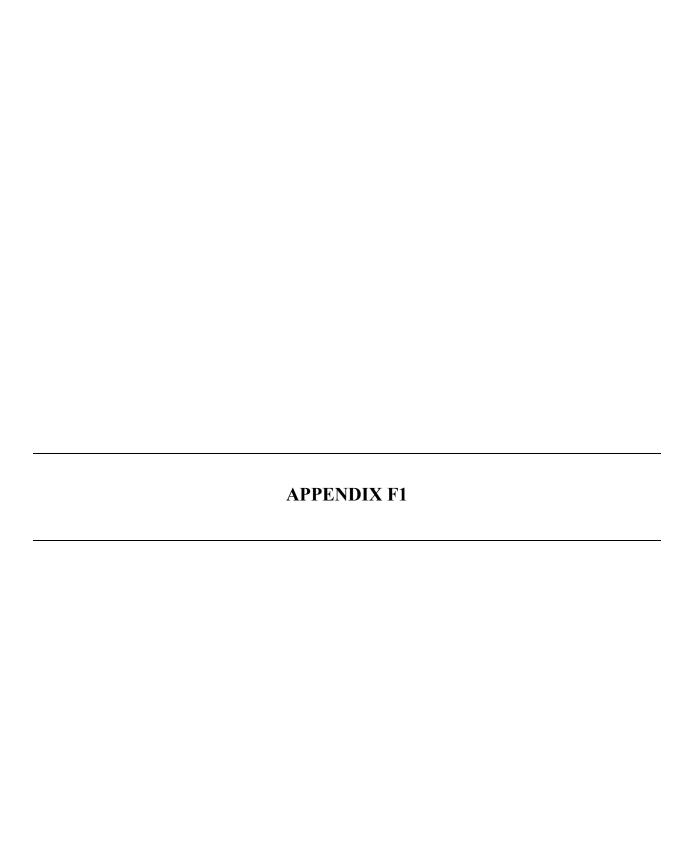
#### **D. PFAS Sampling**

In response to community concerns, NYSDEC commissioned surface water sampling in the vicinity of the Dunn Facility, as well as on-site groundwater and leachate sampling, to test for PFAS and other contaminants. NYSDEC explains that its assessment is occurring in two phases: the first phase during wet conditions, and the second phase during dry conditions. The first sampling phase (wet conditions) was conducted in the spring and summer of 2021. NYSDEC planned to conduct the second sampling phase (dry conditions) in December 2021.

The surface water and groundwater sampled in the NYSDEC study do not serve as sources of drinking water. However, NYSDEC explains that when sampling surface water or groundwater, NYSDEC often uses the State's established Maximum Contaminant Levels (MCLs) for public drinking water systems to consider whether additional investigation is necessary. New York has MCLs of 10 parts per trillion (ppt) for perfluroctanoic acid (PFOA) and perfluoroctane sulfonic acid (PFOS) for public drinking water systems.

According to NYSDEC, the MCL of 10 ppt for both PFOA and PFOS was not exceeded in any groundwater or surface water sample collected at or near the Dunn Facility. While NYSDEC's first phase of the investigation found low levels of PFAS in some nearby surface water and groundwater, these results did not support a direct link to the Dunn Facility as a contributor of PFAS or other off-site contamination. NYSDEC has not yet reported the result of its planned December 2021 sampling event. The PFAS sampling is summarized on the NYSDEC website: <a href="https://www.dec.ny.gov/chemical/117071.html#Odor">https://www.dec.ny.gov/chemical/117071.html#Odor</a>.

S.A. Dunn also retained an outside consultant to conduct PFAS sampling in response to community concerns. In January 2021, samples were collected from groundwater monitoring wells and surface water monitoring locations. Those samples, which were analyzed by an independent and accredited lab, confirmed that S.A. Dunn is not contributing to any PFAS concentrations in groundwater or surface water. Detections of all PFAS compounds, including PFOA and PFOS, were well below the State's 10 ppt MCL, and in many cases were non-detectable, or otherwise consistent with background readings for PFAS found across New York State. Results can be found at <a href="https://cdn.wasteconnections.com/cms/sa-dunn-landfill/J179920-2UDSLevel2ReportFinalReport.pdf">https://cdn.wasteconnections.com/cms/sa-dunn-landfill/J179920-2UDSLevel2ReportFinalReport.pdf</a>.



#### NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Air Resources 625 Broadway, Albany, New York 12233-3250 P: (518) 402-8452 | F: (518) 402-9035 www.dec.ny.gov

April 28, 2020

Superintendent Joseph Kardash Rensselaer City School District 25 Van Rensselaer Drive Rensselaer, NY 12144

Dear Joe:

At your request, staff from the New York State Department of Environmental Conservation (DEC) conducted air sampling for volatile organic compounds (VOCs) and speciated analysis (for specific elemental components) of particulate matter (10 microns and less in size (PM<sub>10</sub>)) on the roof of the elementary school. The results for the fourteen VOC samples, which were collected every sixth day from October 30, 2019 to January 16, 2020, show that the air quality at the school is typical of the general air quality for a suburban area. The air concentrations for the PM<sub>10</sub> mass and associated elemental components, which were collected from October 12, 2019 to December 8, 2019, were low and similar to measurements at an identical monitor in Loudonville during the same time period. In particular arsenic and lead air concentrations were also low and similar for the two locations. While landfill operations can have the potential to increase short-term particulate levels near the school, DEC actions to curtail this influence, particularly on windy days, may have helped to keep the PM<sub>10</sub> levels at the school similar to levels measured at the Loudonville monitor. These data collected do not appear to indicate that landfill operations were measurably increasing the levels of PM<sub>10</sub> and VOCs monitored at the school above levels measured at other DEC monitors.

#### Details About the Sampling Results for Volatile Organic Compounds

The volatile pollutants measured in the air samples represent chemicals that can be typically found in outdoor air, including in suburban communities. The list includes chemicals identified as hazardous air pollutants and toxic air contaminants by the EPA and DEC.

VOC sampling results were compared to DEC's short-term health-based guideline concentrations (SGCs). SGCs are used by the DEC to protect the general population from adverse exposure to toxic air contaminants for short-term exposure periods of one hour. We also compared the results to DEC's annual health-based guideline concentrations (AGCs). The AGCs and SGCs are set at levels below those that cause health effects. AGCs are used by the DEC to protect the general population from adverse health effects from long-term (lifetime) exposure to the toxic air contaminant. While these values are used for comparisons to ambient measurements taken over the course of an entire year, in this case we also compared the 24-hour sampling results



measured at your school to assess potential long-term exposure, assuming the limited samples collected are representative of long-term exposures.

None of the VOC results were above the SGC. The results for four VOCs were detected above the AGC: 1,2-dichloroethane, 1,3-butadiene, benzene, and carbon tetrachloride. These four VOCs are commonly detected above the AGC across the State, including in the rural areas of Whiteface Mountain and Pinnacle State Park.

The following VOCs were detected in the air samples we collected and also were reported as detected in the leachate at Dunn Landfill in the facility's solid waste annual report for 2018 or 2019: 1,2-dichloroethane, dichloromethane, benzene, ethylbenzene, toluene, trichloroethylene, trichlorofluoromethane, vinyl chloride, *m,p*-xylene, and *o*-xylene. All of these compounds were found at levels commonly found in outdoor air samples from other areas of the State.

More detailed information about the results can be found in the **VOC Technical Notes** section which describes the collection and analysis method used for the samples. We used the same methods to collect and analyze the school samples as we use in the network monitoring conducted across the State. Also included are the results for all VOCs detected and graphs of comparisons to the State monitoring network for the four VOCs which were found above the AGC.

#### Details about the PM<sub>10</sub> Mass and Elemental Speciation Results

Activities that create a lot of noticeable dust typically create  $PM_{10}$  particles. Because some particles in this size range are light enough to remain suspended, they can travel from distant upwind areas so a portion of the  $PM_{10}$  measured locally would reflect transport of particles from activities outside the area, and would therefore not be related to the Dunn Landfill. To determine if local particulate concentrations at the Rensselaer City School (RCS) were elevated compared to another location in the Capital District, DEC installed an identical monitor in Loudonville to collect samples to evaluate speciated elemental constituents in  $PM_{10}$ . The  $PM_{10}$  samples were collected in a manner consistent with EPA's sampling guidelines and on the same 1-in-3 day, 24-hour sampling schedule as used in the State's monitoring network.

The results in Figure 1 show that the PM $_{10}$  concentrations were low and similar at both locations. Closer inspection shows that the results can vary substantially from day to day depending upon meteorological factors (e.g., wind speed and direction), traffic and other local factors, and there were a few days when concentrations were higher at either the RCS or Loudonville monitor. The results for both monitors were well below the daily average National Ambient Air Quality Standard (NAAQS) for PM $_{10}$  of 150 micrograms per cubic meter of air ( $\mu$ g/m $^3$ ).

More information about the  $PM_{10}$  analysis and specific elemental results (including metals) can be found in the  $PM_{10}$  Technical Notes section.

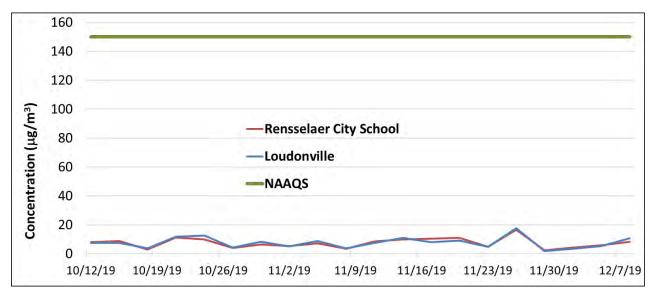


Figure 1. PM<sub>10</sub> Concentrations compared to the NAAQS

If you have any further questions, please don't hesitate to contact me at (518) 402-8452.

Sincerely,

Steven E. Flint, PE

Director, Division of Air Resources

Keith Goertz – DEC Region 4, Regional Director
 Victoria Schmitt - DEC Region 4, Regional Engineer
 Brian Maglienti - DEC Region 4, Engineer
 Benjamin Potter - DEC Region 4, Regional Air Pollution Control Engineer
 Gary Ginsberg – New York State Department of Health
 Brian Lay - DEC
 Dirk Felton - DEC
 Margaret LaFarr – DEC
 Tom Gentile - DEC
 Randi Walker - DEC

#### **VOC Technical Notes**

#### Monitoring instrument and analysis method

Air samples were collected for 24-hours using an evacuated pre-cleaned 6-liter stainless steel canister. The canisters were sent to DEC's Bureau of Air Quality Surveillance (BAQS) laboratory in Rensselaer, for analysis of 43 target compounds consistent with NYS Toxics Air Monitoring Network. The canister samples were analyzed using a modified version of EPA method TO-15. The analytical process is described as follows: air samples are taken from the canister at a controlled flow and temperature by an Entech Model 7100A pre-concentrator. The sample was injected into an Agilent gas chromatograph/mass spectrometer.

#### Results for all air toxics

Of the 43 target compounds analyzed, only 26 were detected. Tables 1 and 2 list all VOCs detected with associated SGCs and AGCs. None of the VOCs were found above the SGC. Four VOCs (1,2 dichloroethane, 1,3-butadiene, benzene, carbon tetrachloride) had at least one result above the AGC. These four VOCs are commonly found above the long-term guideline concentration in all areas of the State. Figure 2 illustrates how the concentrations for these four VOCs measured at the Rensselaer Public School were within the range found in other areas of the State. Two monitors have been designated as source collection. One is adjacent to a formerly active coke oven facility and the other is located on a large landfill and near chemical manufacturing, petroleum storage and refining facilities in New Jersey.

Table 1. Air Sample Results for October 30, 2019 - December 5, 2019

Chemical (all results in units of ppb)	10/30/2019	11/5/2019	11/11/2019	11/17/2019	11/23/2019	11/29/2019	12/5/2019	Short-Term Health-Based Guideline Conc. (SGC) (ppb)	Long-Term Health-Based Guideline Conc. (AGC) (ppb)
1,2,4-Trimethylbenzene	0.021	0.0095	0.013	0.012	0.0077	0.0051	0.0097		1.2
1,2-Dichloroethane	0.016	0.014	0.015	0.017	0.015	0.015	0.018		0.0093
1,2-Dichloropropane	nd	nd	nd	nd	nd	nd	0.0045		0.87
1,3,5-Trimethylbenzene	0.0052	nd	0.0034	0.0032	nd	nd	nd		59
1,3-Butadiene	0.012	nd	0.013	0.019	0.0082	nd	nd		0.015
1,4-Dichlorobenzene	nd	nd	nd	nd	nd	nd	nd		0.015
Acrolein	0.065	0.054	0.073	0.076	0.055	0.036	0.040	1.1	0.15
Benzene	0.10	0.082	0.12	0.14	0.094	0.085	0.12	400	0.04
Bromomethane	0.0071	0.0069	0.0074	0.0068	0.0076	0.0068	0.0075	1,000	1.3
Carbon tetrachloride	0.081	0.077	0.080	0.080	0.078	0.077	0.080	300	0.027
Chlorobenzene	0.013	nd	nd	nd	nd	nd	nd		13
Chloroethane	nd	nd	nd	nd	nd	nd	nd		3,800
Chloroform	0.019	0.017	0.021	0.021	0.016	0.016	0.017	31	3
Chloromethane	0.51	0.51	0.50	0.57	0.51	0.49	0.49	11,000	44
Dichlorodifluoromethane	0.51	0.49	0.50	0.49	0.50	0.48	0.48		2,400
Dichloromethane	0.093	0.069	0.072	0.072	0.067	0.068	0.077	4,000	13
Dichlorotetrafluoroethane	0.016	0.015	0.017	0.016	0.016	0.015	0.015		2,400
Ethylbenzene	0.025	0.012	0.017	0.017	0.011	0.009	0.016		230
<i>m,p</i> -Xylene	0.061	0.027	0.040	0.038	0.021	0.017	0.033	5,100	23
o-Xylene	0.026	0.011	0.017	0.015	0.0099	0.0072	0.013	5,100	23
Styrene	0.0048	nd	0.0052	0.0044	nd	nd	0.0028	4,000	230
Tetrachloroethylene	0.015	0.0076	0.0067	0.0085	0.0052	0.0050	0.0070	44	0.59
Toluene	0.17	0.076	0.14	0.13	0.069	0.052	0.097	9,800	1,300
Trichloroethylene	nd	nd	nd	nd	nd	nd	nd	4	0.037
Trichlorofluoromethane	0.23	0.20	0.21	0.20	0.20	0.20	0.20	1,600	900
Trichlorotrifluoroethane	0.073	0.065	0.070	0.070	0.069	0.069	0.069	130,000	23,000

<sup>- -</sup> indicates no short-term health-based air concentration value has been developed for this chemical nd - results are below analytical method detection limit

Table 2. Air Sample Results for December 11, 2019 - January 16, 2020

Chemical (all results in units of ppb)	12/11/2019	12/17/2019	12/23/2019	12/29/2019	1/4/2020	1/10/2020	1/16/2020	Short-Term Health-Based Guideline Conc. (SGC) (ppb)	Long-Term Health-Based Guideline Conc. (AGC) (ppb)
1,2,4-Trimethylbenzene	0.0049	0.017	0.016	0.022	0.037	0.012	0.022		1.2
1,2-Dichloroethane	0.016	0.018	0.019	0.020	0.021	0.019	0.020		0.0093
1,2-Dichloropropane	0.0050	nd	0.0039	0.0039	0.0046	0.0045	0.0045		0.87
1,3,5-Trimethylbenzene	nd	0.0049	0.0031	0.0061	0.0099	0.0032	0.0064		59
1,3-Butadiene	nd	0.029	0.012	0.022	0.034	0.012	0.019		0.015
1,4-Dichlorobenzene	nd	nd	nd	nd	0.0036	nd	nd		0.015
Acrolein	0.037	0.075	0.13	0.088	0.091	0.078	0.065	1.1	0.15
Benzene	0.094	0.20	0.30	0.19	0.28	0.15	0.20	400	0.04
Bromomethane	0.0071	0.0066	0.007	0.0074	0.0072	0.0077	0.007	1,000	1.3
Carbon tetrachloride	0.077	0.080	0.082	0.080	0.080	0.084	0.083	300	0.027
Chlorobenzene	nd	nd	nd	nd	nd	nd	nd		13
Chloroethane	nd	nd	nd	nd	0.024	nd	nd		3,800
Chloroform	0.016	0.019	0.020	0.022	0.023	0.018	0.020	31	3
Chloromethane	0.50	0.52	0.52	0.58	0.60	0.53	0.52	11,000	44
Dichlorodifluoromethane	0.48	0.49	0.51	0.49	0.51	0.50	0.52		2,400
Dichloromethane	0.073	0.081	0.089	0.089	0.10	0.094	0.092	4,000	13
Dichlorotetrafluoroethane	0.015	0.015	0.016	0.016	0.016	0.017	0.016		2,400
Ethylbenzene	0.010	0.025	0.035	0.030	0.050	0.018	0.033		230
<i>m,p</i> -Xylene	0.018	0.055	0.060	0.067	0.118	0.036	0.074	5,100	23
o-Xylene	0.0078	0.021	0.026	0.031	0.047	0.015	0.028	5,100	23
Styrene	nd	0.0080	nd	0.0062	0.010	0.0037	0.0063	4,000	230
Tetrachloroethylene	0.0051	0.0092	0.012	0.0087	0.024	0.0098	0.012	44	0.59
Toluene	0.065	0.17	0.24	0.23	0.39	0.12	0.20	9,800	1,300
Trichloroethylene	nd	nd	nd	0.0034	nd	nd	nd	4	0.037
Trichlorofluoromethane	0.20	0.20	0.25	0.21	0.22	0.21	0.22	1,600	900
Trichlorotrifluoroethane	0.067	0.067	0.068	0.068	0.069	0.068	0.070	130,000	23,000

<sup>- -</sup> indicates no short-term health-based air concentration value has been developed for this chemical nd - results are below analytical method detection limit



Figure 2. Comparison with the State's Monitoring Network

#### PM<sub>10</sub> Technical Notes

#### Monitoring instrument and analysis method

The PM<sub>10</sub> measurements were collected with filters that were weighed and a mass concentration was determined. The elemental composition of the particles collected were determined by Energy Dispersive X-ray Fluorescence. The PM<sub>10</sub> samples collected in Loudonville, were collected with the same type of instrument on the same sampling schedule as samples collected at the Rensselaer City School, (RCS).

The full list of the 33 elements measured in the particle samples are show in Table 3. Most of these elements were found at very low concentrations, if at all. Elements considered crustal components (aluminum, calcium, iron, silicon and titanium) are often used as indicators of windblown dust. As illustrated in Figure 33, the amount of windblown dust at both locations is very low and would contribute a small portion to the overall PM<sub>10</sub> concentrations at either location. Some of the differences in PM<sub>10</sub> concentrations between the two sites appear to be related to windblown dust.

Table 3. Elements Measured in PM<sub>10</sub> Samples

Element Abbreviation	Element Name	Element Abbreviation	Element Name
Ag	Silver	Mn	Manganese
Al	Aluminum	Na	Sodium
As	Arsenic	Ni	Nickel
Ва	Barium	Р	Phosphorous
Br	Beryllium	Pb	Lead
Ca	Calcium	Rb	Rubidium
Cd	Cadmium	S	Sulfur
Ce	Cerium	Sb	Antimony
CI	Chlorine	Se	Selenium
Со	Cobalt	Si	Silicon
Cr	Chromium	Sn	Tin
Cs	Cesium	Sr	Strontium
Cu	Copper	Ti	Titanium
Fe	Iron	V	Vanadium
In	Indium	Zn	Zinc
K	Potassium	Zr	Zirconium
Mg	Magnesium		

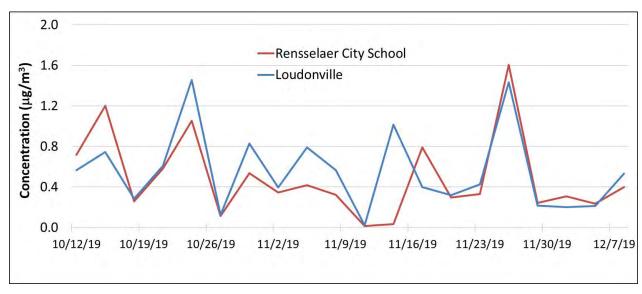


Figure 3. Sum of the Crustal Elements (Al, Ca, Fe, Si, and Ti)

Another local source that can be identified by elemental analysis is road salt. Elements associated with road salt include sodium, chloride and sometimes calcium. In Figure4, the common road salt elements have been added together. Road salt is often found in  $PM_{10}$  measurements one or more days after a snowstorm when the roads are dry, and vehicles re-entrain salt from the road surface. It is apparent that the crustal element concentrations are low when the road salt concentrations are high. This is likely due to snow cover which prevents windblown dust from snow covered surfaces.

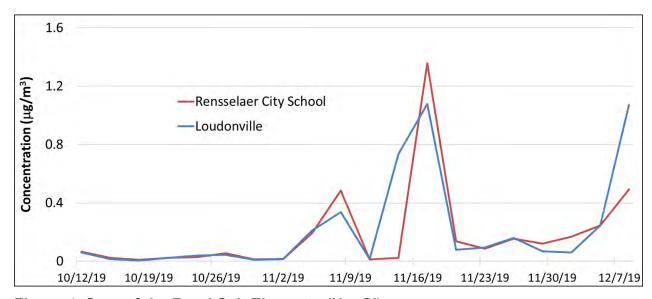


Figure 4. Sum of the Road Salt Elements (Na, CI)

We looked at two elements particularly closely, arsenic and lead. The results for lead are similar for the two locations and well below the NAAQS as shown in Figure 5.

The results for arsenic, as shown in Figure 6, are slightly different for the two locations with RCS sometimes higher and lower than Loudonville. Arsenic is a natural element

found among the crustal elements and commonly detected in air samples such as the type of analysis conducted at the RCS. Since a NAAQS does not exist for arsenic, we compared the results to PM<sub>10</sub> measurements collected by a different method in the Bronx and Rochester for 2019. As shown in Table 4, the arsenic averages for the four sites are very similar, illustrating the ubiquitous nature of arsenic.

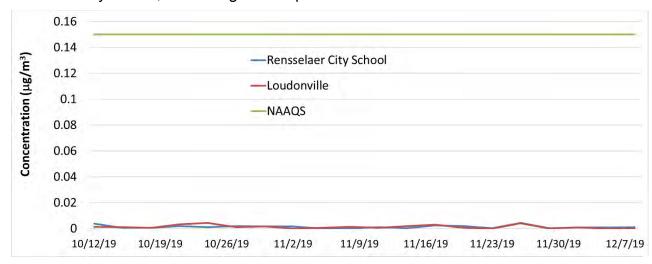
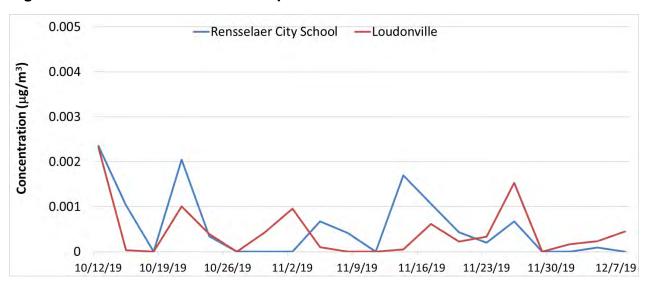


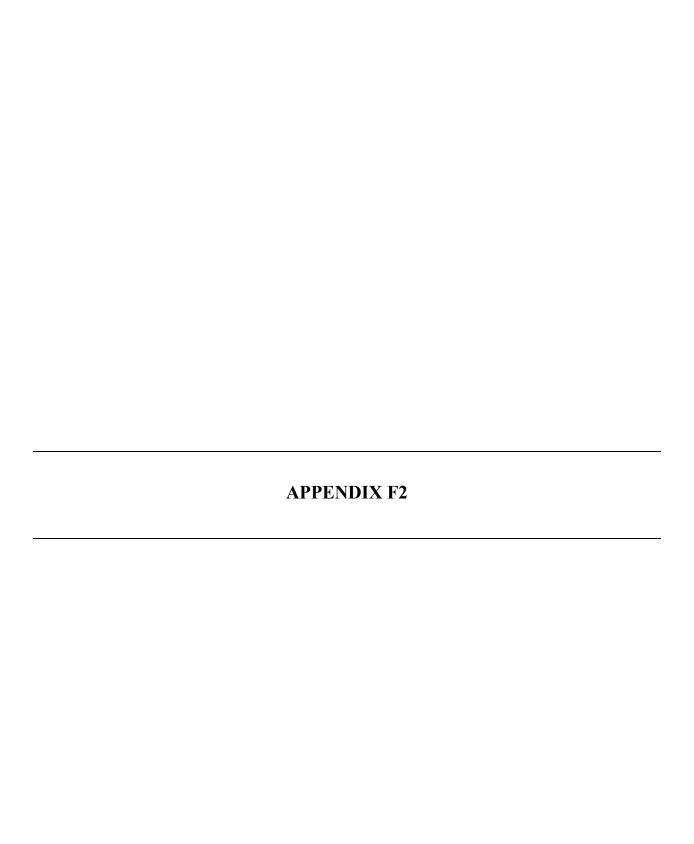
Figure 5. Lead Concentrations compared to the NAAQS



**Figure 6. Arsenic Concentrations** 

**Table 4. Arsenic Concentrations** 

	Rensselaer City School	Loudonville	Bronx 2019	Rochester 2019
Arsenic Average (μg/m³)	0.00055	0.00044	0.00041	0.00052



# RENSSELAER COUNTY DEPARTMENT of HEALTH

Steven F. McLaughlin County Executive



Mary Fran Wachunas Public Health Director

# Lead Hazard Screen

Prepared for: Rensselaer City School District 25 Van Rensselaer Drive Rensselaer, NY 12144

Rensselaer County Department of Health 1600 7th Avenue 2nd floor Troy, NY 12180

EPA Firm License Number: LBP-2482-1

Date of Site Visit: April 18, 2019

Prepared by: Jennifer DeLorenzo EPA Risk Assessor Certification number: LBP-R-7845-1

> Testing Laboratory: Accurate Analytical Testing 30105 Beverly Road Romulus, MI 48174

#### Summary

Dust is an important pathway to exposure of lead. Studies have shown that dust lead levels are the strongest predictor of children's blood lead levels compared with other variables (EPA 40 CFR part 745, Risk Assessor manual, p 5-3). Taking dust samples will confirm the presence or absence of lead in a building.

A lead hazard screen is done in buildings in good condition where the probability of finding lead is low. A screen employs more limited sampling and more sensitive hazard identification criteria. If a screen indicates that lead hazards are present, further testing would be required. (EPA 40 CFR part 745, Risk Assessor manual, Chapter 5-7).

This method of testing for the presence of lead dust was chosen for the interior of the school building. The school building was constructed in the late 2000's and therefore should not contain lead paint. Dust samples were collected per EPA sampling protocol outlined in EPA-W-04-022 (see attached). Interior sampling sites were chosen at all major entrances to the building. In addition, one pre-K classroom floor and one pre-K classroom window sill were chosen to test for the presence of lead in classrooms with the most vulnerable population (see attached diagram for sampling locations).

While there are no protocols for exterior dust sampling, exterior dust sampling sites were chosen to serve as surveillance testing to determine if further testing was required. Roof sample locations were tested to gather information on undisturbed locations. Also chosen were exterior window sills that do not get regularly cleaned. These locations were chosen as "worst case scenario" as they would have the largest build-up of dust. The final location was chosen on the playground. The top of the tunnel was sampled. This sample location was chosen because of the high contact area (see attached diagram for sampling locations). If lead is found in any of these locations, further testing would be required.

#### Sampling Results

Laboratory results indicate that there was no lead found at any of the sampling locations. The areas from which the samples were collected are representative of other areas throughout the property. Laboratory results are attached.

The results of this risk assessment are valid only for the date and time of the field visit. Conditions may change.

xespectionly submittee

Public Health Sanitarian

Rensselaer County Department of Health



30105 Beverly Road Romulus, MI 48174

Ph: 734-629-8161; Fax: 734-629-8431

#### Certfcate of Analysis: Lead In Dust Wipes by ASTM 1644-17 and EPA Method 7000B

Client: Rensselaer County DOH

1600 7th Ave

Troy, NY 12180

Attn : Deanna Miller

Email: deanns.miller@rensco.com

Phone: 518-270-2640

Fax: 518-270-2638

Client Project: N-

Project Location: N-A

AAT Project: 484181

Sampling Date: 04/18/2019

Date Received : 04/22/2019

Date Analyzed: 0

04/22/2019

Date Reported :

4/23/2019 6:00:00AM

Lab Sample ID	Client Code	Sample Description	(inch)	(inch)	Area (5q ft)	Total	Resulta Leno µg/ft2
4657948	2019JD009		12	12	1.00	<5	<5.00
4857949	2019JD010		12	12	1 00	<5	<5.00
4657950	2019JD011		12	12	1.00	<5	<5.00
4857951	2019JD012		12	12	1.00	<5	<5.00
4657952	2019JD013		1	40	0.34	<5	<14.69
4657953	2018JD014		1	29	0 20	<5	<24.83
4857954	2019JD015		1	52	0,36	<5	<13,85
4857955	2019JD018		12	12	1.00	<5	<5.00
4657958	2019JD017		12	12	1,00	<5	<5.00
4657957	2019JD018		12	12	1.00	<5	<5.00
4857958	2019JD019		12	12	1,00	<5	<5.00
4857958	2019JD020		12	12	1.00	<5	<5.00
4657980	2018JD021		10	38	2.64	<5	<1.89
4657961	2019JD022		12	12	T.00	<5	<5.00
4657662	2019JD023		12	12	1.00	<5	<5.00
4657963	2019JD024		12	12	1.00	<5	<5.00
4657984	2019JD025		12	12	1.00	<5	<5.00
4857965	2019JD026		12	12	1.00	<5	<5.00

ND = Nis Detected, NIA = Not Aveiable, Rt. = Reporting Limit, Analytical Reporting Limit is 5 ug/sample. For true values assume (2) significent figures.

AAT internal SOP \$207. The medical and basic QC are acceptable unless otherwise stated.

EFA Regulatory Limits: 40 ug/82 (Floors, Carpeted/Uncarpeted), 250 ug/82 (Window Efficiance), 400 ug/82 (Window Traught/Wellifful Concrete Sturfaces), HUD Regulatory Limits: 10 ug/82 (Window Traught/Vellifful Concrete Stu

The laboratory operates in accord with ISO 17025 guidefines and holds limited scopes of accreditation under ARNALAP and NY titate DOH ELAP programs. These results are submitted postured to AAT, U.C. currient terms and conditions of sale, including the company's standard warranty and limitation of helitity, provisions. Analytical results reliab to the samples as proceived by the lab. AAT will not assume any limiting or responsibility for the manufact in which the results are used or integrated. All Quality control requirements for the samples this report contains tave been met. AAT does not blank correct reported values. Sample date apply only to fisms analyzed. Reproduction of this coouvent other term in its writery is not authorized by AAT.



Cab 10 # 100996

ARHA LAP- Lab ID #100985, NY State DOH ELAP-Lab ID #11964, State of Chic- Lab ID #16042

Date Printed: 04/23/2019 6:11AM

AAT Project 484181

Lab Sample ID Glient Code Sample Description Length Width Area Total Results Lead (Inch) (Inch) (Iiq it) µg µg/it2

Analyst Signature

Elype Bille

NO = Not Descried, N/A = Next Available, RL = Reporting Limit, Array/coal Respecting Limit is 8 up/sample. For frue values assume (2) significant Square.

AAT internet SOP S207. The method and batch OC are ecceptable orders otherwise stated.

EPA Regulatory Limits: 40 up/t2 (Floors, Carpeted/Lincospeted), 250 up/t2 (Window SR/Ellocia), 400 up/t2 (Window Trough/Wild/Ed Concrete Surfaces), HUD Regulatory Limits: 10 up/t2 (Resnor Floors), 40 up/t2 (Window Trough/Limits: 10 up/t2 (Resnor Floors), 40 up/t2 (Window Trough).

The aboratory operates in accord with ISO 17035 guidelines and lends limited accord of accorditation caster AHA-LAP and MY State DOH ELAP programs. These results are submitted pursuant to AAT, LLD current terms and conditions of sale, including the company's standard elements and conditions of leability, provisions, Analytical results retaile to the samples as proceived by the lab. AAT will not assume any liability or responsibility for the misriner in which line results are used or interpreted. All Quarry costs: requirements for the samples the report contains have been real. AAT does not blank current reported yellows. Sample date apply any to items analyzed Reproduction of the opcolarors of the filter in its antirety is not authorized by AAT.



Lab ID & 100960

ARIA LAP- Lab ID #1998HS, NY State DOH ELAP -Lab ID #11664, State of Onlo- Lab ID # 19942

Date Printed: 04/23/2019 5:11AM

AAT Project: 484181

Sample ID # Time	Time	Location	Dimensions	Note
2019-11) -009	1355	High School was root	12 × 12	
010-	1400	midble school wing roof	לו אלו	
110-	1408	- 1	12 X 12	
210-	1413	Pluy grow / top or tobe	レメイ	
2013	-013 1419	plan wir a endance	1 × 4 %	
700-	- OIY 1428	middle school wing and evence	1 × 2.9	
510-	1428	12 gh School wing anterne	1 × 52	
910	1430	Blonk	12×12	
100	1433	Main enterance who Phoov	12×12	
\$10.	1439	middle School wing enteres	21 × 21	
510-		Pless Entere 10 Floor	17 × 17	
020 -	1447	RM III Floor	12 × 12	
170.	1450	Rm log www sill	10 x38	
200-	1484	Clem man enterence Floor	71 x 7	
- 023	-023 1458	Guesder enference Floor	12 × 12	
420-	1501	High Sohool wing andonce	12×12	
-025	1505	Audibourn entrue Floor	N-x 12	
960-	1507	Black	12×12	
180-				



30105 Beverly Road Romulus, MI 48174

AAT Project :

Client Project :

Ph: 734-629-8161; Fax: 734-629-8431

484181

N-A

Date Reported: 4/23/2019 6:00:00AM

To:

Attn:

Rensselaer County DOH

1600 7th Ave

Troy, NY 12180

Deanna Miller

Email: deanna.miller@rensco.com

Phone: 518-270-2640

Project Location: N-A

Sample	Client Code	Analysis Requested	Completed	Analyst
4657948	2019JD009	Dust Wipe	04/22/2019	Elyse Bidle
4857949	2019JD010	Dust Wipe	04/22/2019	Elyse Bidle
4857950	2019JD011	Dust Wipe	04/22/2019	Elyse Bidle
4657951	2019JD012	Dust Wipe	04/22/2019	Elyse Bidle
4657952	2019JD013	Dust Wipe	04/22/2019	Elyse Bidle
4657953	2019JD014	Dust Wipe	04/22/2019	Elyse Bidle
4657954	2019JD015	Dust Wipe	04/22/2019	Elyse Bidle
4857955	2019JD016	Dust Wipe	04/22/2019	Elyse Bidle
4657958	2019JD017	Dust Wipe	04/22/2019	Elyse Bidle
4657957	2019JD018	Dust Wipe	04/22/2019	Elyse Bidle
4657958	2019JD019	Dust Wipe	04/22/2019	Elyse Bidle
4657959	2019JD020	Dust Wipe	04/22/2019	Elyse Bidle
4657960	2019JD021	Dust Wipe	04/22/2019	Elyse Bidle
4657961	2019JD022	Dust Wipe	04/22/2019	Elyse Bidle
4657962	2019JD023	Dust Wipe	04/22/2019	Elyse Bidle
4657963	2019JD024	Dust Wipe	04/22/2019	Elyse Bidle
4857964	2019JD025	Dust Wipe	04/22/2019	Elyse Bidle
4657965	2019JD026	Dust Wipe	04/22/2019	Elyse Bidle

Reviewed By

Quality Assurance Coordinator - Stephen Northcott

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AIHA LAP- Lab ID #100986, NY State DOH ELAP -Lab ID #11864, State of Ohio- Lab ID # 10042

Date Printed: 04/23/2019 6:11AM

AAT Project: 484181

Sample

Giring Gode

Amilysis Requested

Completed

Analyst

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AHA LAP- LIED ID #100996, NY SIEN DON ELAP -LIE ID #11864, (EXILO OF DISE- LIED ID # 10042

20105 SEVERLY RD. (734) 499-LABS (8327)



JDeLORENZO@ RENSCO.COM

Rensselaur County DOH 1600 7th Arc. Tray, NY 12180

AND LON	www.acci.	rate-lest ucen	CHINA		PO#	1		Email: ala	nna, miller	rensc
ROJECT HUNDRE ROJECT ADDRESS	ENR SAMPUNG BASE		SINGLE WIPE DUST (>		1	SAME DAY (	) 24 Hor	check one)		
AMPLE START TIME	13:45	SAMPLE DID TO	15:1	5	COM	POSITE SOIL	( )	46 Hour (	) 72 hou	12 ( )
BSK ASSEROR	Jennifer	Delorer	020		PAINT CHIP	% By Wt.	mg/cm <sup>3</sup>	If no TAT is Indica	ated, default is	72 hours
	SAMPLE ED	DESCRIPTION	100	tim	WI, F	SAFTONT ARM	A (og. 12ln X 12ln)		ENT COMMENTS	
	2019JD		AN .	Wa	. W.5+ R	12		Risk Assessor:	miler	Dren on
	30197170					12	X 12	Somples shipped		
	2019 300					12	x /2	Tour pice suppor	10	
	2019100					12	x /2	7	10	)
	2019 350				-	1	x 49	1		
	2019100					1	x 29	1		
	2019100					1	× 52			
	20191100					12	X /2	All I		
	2019400						x /2			
	2019100					12	X /2			
	2019400	219				12	X /2			
	201910					12	X /2			
	201910	021				10	x 38			
	2019450	25				12	X /2			
	2019100	123				12	x /2			
/ -/) DA	ALTE BENGARHED	ВҮ		- 1	AMPLES RECEIV	ED BY			lole TIME	
Hammish )	J- TOLON-25	0						-00	- pan	PM
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# Vicase email results to me Page 2 of 2 J DELORENZO@RENSCO.COM

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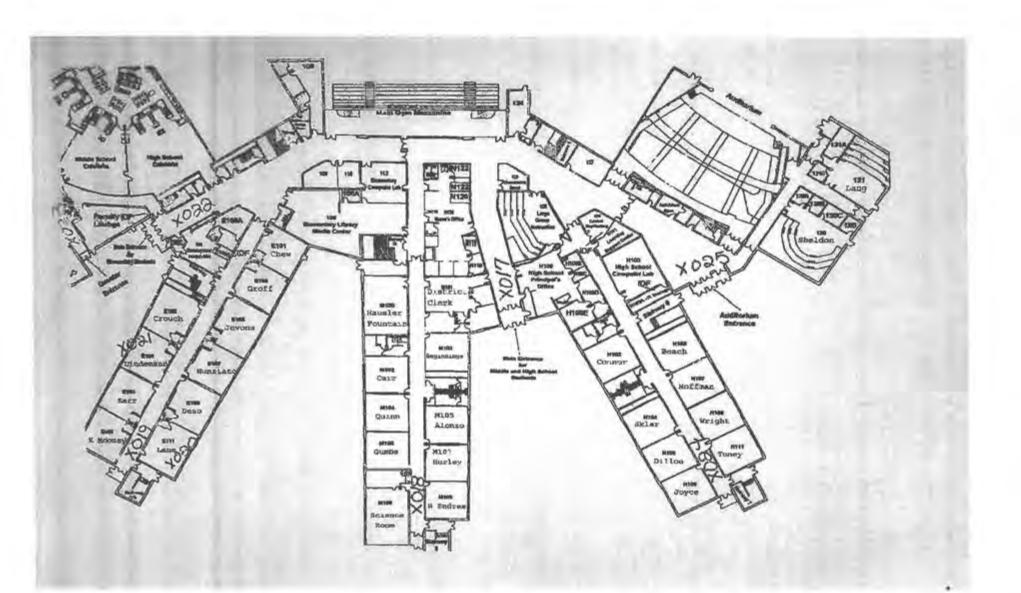
20105 BEVERLY RD. **ROWULUS ISI 40174** (734) 475-LABS (5227)

Rens setaer County Out Office: Dearna No. Tray, NY 12180

Office: Deama Miller Fex: \$18-270-2640 (Fax)

ROJECT MEMBER ROJECT ADDRESS AMPLE STARTTIME	13:45	SAMPLE INIO TIME	15215	SINGLE	ANALYSIS WIPE DUST POSITE BOIL % By WL	( )	Request Turnaround if SAME DAY ( ) 48 Hour ( )	24 Hour 72 hours	( )
BEK ASSESOR	Jennit	er Deloven	w		( )		If no TAT is indicated,	THE REAL PROPERTY.	hours
	SAMPLE ID	DESCRIPTION	W	WT, F	WIFE ARE	(og Silb X Lib)		COMMENSES.	
	2019,50	024			12	X. 12	Risk Assessor: Jen	niter L	elores
	2019000	725			12	x 12	Samples shipped		
	201930	0260			12	x 12			
						X			
				-	-	X			
	-					X	-		
			-			X			
	-		_			X	-		
			-		-	X	-		
			_			X	-		
			-			X	-		
					-	X			
						X			
						X			
-/400	THE THE PROPERTY.	DBY		AMPLE SECTIV	ED NY		Date	TIME	
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Do sound	c	8						. AM	PM
/								AM	PM

By submitting samples to AAI, the offers agrees to AAI's terms and conditions.





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Richard Elder 22-APR- 2019 @ 13:24:09

# United States Environmental Protection Agency This is to certify that



Jennifer B DeLorenzo

has fulfilled the requirements of the Toxic Substances Control Act (190A) Section 402, and has received certification to conduct lead based paint activities pursuant to 40 CFR Part 745.226 as:

Risk Assessor

In the Jurisdiction of:

All EPA Administered Lead-based Paint Activities Program States, Tribes and Territories

This certification is valid from the date of issuance and expires

January 27, 2020

LBP-R-7845-1

Certification #

December 19, 2016

Issued On



John Gorman, Chief

Pesticides & Toxic Substances Branch