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August 19, 2014

Reference No. 085121

New York State Department of Environmental Conservation Regional Permit Administrator 270 Michigan Avenue Buffalo, NY 14203-2915

US Army Corps of Engineers Buffalo District ATTN: Regulatory Branch 1776 Niagara Street Buffalo, NY 14207-3199

Dear Sir or Madame:

Re: Joint Permit Application and Jurisdictional Determination for Former Nash Road Landfill NYSDEC Site #932054 Town of Wheatfield, Niagara County, New York

Glenn Springs Holdings, Inc. (Applicant) is requesting a Joint Permit and Jurisdictional Determination for the remediation of a portion of the former Nash Road Landfill (Site) located in the Town of Wheatfield, Niagara County, New York. The proposed remediation activities (project) will require authorization under an Army Corps of Engineers Nationwide Permit (NWP-38) and a New York State Department of Environmental Conservation (NYSDEC) 401 Water Quality Certification. Enclosed please find the required number of copies of the Joint Permit Application for the above reference application.

The Site is comprised of the former Nash Road Landfill which was operated by the Niagara Sanitation Company between 1964 and 1968 for disposal of industrial waste. The Site is a rectangular-shaped property (historically disturbed) encompassing approximately 20 acres and is wooded with trees, primarily eastern cottonwood, and heavy brush and contains areas of seasonally-influenced ponded water. Current access to the Site is not provided by any immediately identifiable means; however, historic access to the Site for disposal activities occurred along a haul road that was constructed from Nash Road, west of the Site. The Site is bordered to the north by the Holy Infant Shrine, to the east by a cemetery and a property that contains a motel and livery service, to the south by utility right-of-ways (overhead electric and underground natural gas and brine pipelines) and residences, and to the west by undeveloped land and Nash Road.

Equal Employment Opportunity Employer





Reference No. 085121

- 2 -

The Site is currently undergoing site remediation under the guidance of the NYSDEC (Site #932054). The NYSDEC has reviewed and approved the Interim Remedial Action Work Plan, prepared by CRA (Attachment E). The project consists of the removal of impacted soil waste from the Site and restoration of the disturbed portions of the Site to comparable pre-excavation conditions. The work activities include access road construction, installation of fencing and sheet piles, sampling, excavation, dewatering and disposal activities. The impacted soil waste will be disposed of at an approved facility. The remediation activities will temporary impact approximately 0.95 acres (41,670 SF) for the access road and 3.25 acres (141,550 SF) of wetlands for the work area. The impacted areas will be restored by removing stone access roads and sheet piles, backfilling with fill/soil meeting NYSDEC DER-10 requirements, and seeding with an appropriate seed mixture.

If you have any questions or require additional information, please feel free to contact me at (610) 321-1800 Ext. 15 or <u>candes@craworld.com</u>.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES, INC.

motor & Curde

Christopher S. Andes Wetlands Scientist

CSA/smk/1 Encl.

cc: Mr. Clinton Babcock, Glenn Springs Holdings, Inc. Mr. Dennis Hoyt, CRA ATTACHMENT A

JOINT PERMIT APPLICATION FORM



JOINT APPLICATION FORM



For Permits/Determinations to undertake activities affecting streams, waterways, waterbodies, wetlands, coastal areas and sources of water supply.

New York State You must separately apply for and obtain separate Permits/Determinations from each involved agency prior to proceeding with work. Please read all instructions. US Army Corps of Engineers (USACE)

APPLICATIONS TO 1. NYS Department of Environmental Conservation Check all permits that apply: Stream Disturbance Coastal Erosion Excavation and Fill in Management Navigable Waters Wild, Scenic and Docks, Moorings or Water Supply Dams and Impoundment Long Island Well Structures Aquatic Vegetation Control 401 Water Quality Aquatic Insect Control Certification Fish Control Freshwater Wetlands Incidental Take of Endangered/Threatened Species I am sending this application to this agency.			 2. US Army Corps of Engineers Check all permits that apply: Section 404 Clean Water Act Section 10 Rivers and Harbors Act ✓ Nationwide Permit(s) - Identify Number(s): NWP-38 Preconstruction Notification - ✓ Y / □ N ✓ I am sending this application to this agency. 			 3. NYS Office of General Services Check all permits that apply: State Owned Lands Under Water Utility Easement (pipelines, conduits, cables, etc.) Docks, Moorings or Platforms I am sending this application to this agency. 		4. NYS mer Check if appl Coas Cons Cons Cons to ta	Depart- it of State this les: stal sistency currence m sending application his agency.
5. Name of Applicant (use full name	2)	Applicar	nt must be:		6. Name of F	acility or Prop	erty Owne	er (if diffe	rent than
Glenn Springs Holdings, Inc., Attn: Mr. Clinton J. Babcock			Owner Operator		Applicant)	Town of Wh	eatfield		
Mailing Address 5005 LBJ Freeway, Suite 1350		Lessee (check all that apply)			Mailing Address 2800 Church Road				
Post Office City Dallas		Taxpayer ID (If applicant is NOT an individual):		ant	Post Office City Wheatfield				
State Texas Zip Code 75244-6119			State NY		Zip Code 14120				
Telephone (daytime) Email		NA Quart and		Telephone (daytime) Email Super VISOR			JISOr@		
972-687-7506	Clint_Babo	ocock@oxy.com			716-964-6440-	cusp	whea	tfield	diny. US
 Contact/Agent Name Dennis Hoyt 	ct/Agent Name 8. Proje s Hoyt Nash		ect / Facility n Road Landfill	t / Facility Name Pr Road Landfill			roperty Tax Map Section / Block / Lot Number		
Company Name Project		Project I	ocation - Pro	vide dire	ections and dista	nces to roads, b	oridges and	bodies of	waters:
Conestoga-Rovers & Assoicates Niagara F left.		Falls Blvd (US	Route 6	2) North; left on to	Nash Road, Site	e is approxir	nately .6 n	niles on the	
Mailing Address 2055 Niagara Falls Blvd		Street A Nash R	Street Address, if applicable Nash Road		Post Office City Wheatfield		State NY	Zip Code 14120	
Post Office City Niagara Falls Wi		Town / M Wheatfie	wn / Village / City neatfield		County Niagara				
State Zip Code NY 14304		Name of USGS Quadran		angle M W TON/	lap Stream/Water Body Name AWANDA Sawyer Creek				
Telephone (daytime) Location 716-297-6150 NYTM-E Email NYTM-E dhoyt@craworld.com NYTM-E		Coordinates: Enter NYTMs in kilomete NYTM-N L		ers, OR Latitude/Longitude Latitude Longitude 43" 04' 08" 78" 51' 27"					

For Agency Use Only

DEC Application Number:

USACE Number:

This is a 2 Page Application Both Pages Must be Completed

JOINT APPLICATION FORM - PAGE 2 OF 2 Submit this completed page as part of your Application.

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See attached Compliand	e Statement			
Proposed Use: Priv	vate D Public Commercial	Proposed	Estimated	
Hop Work Berry on Brakes		Start Date: 9-15-14	Completion Date:	12-15-14
nas work begun on Projec	tr La res La No Ir Yes, (explain.		
Will Project Occupy Federa	al, State or Municipal Land? 🔲 Yo	es 🗹 No 🛛 If Yes, please sp	ecify.	
10. List Previous Permit / Not Applicable	Application Numbers (if any) and	Dates:		
11. Will this project requir See attached Compliance S	re additional Federal, State, or Lo Statement	cal Permits including zoning change	es? 🗹 Yes 🗖 No I	f yes, please list:
12. Signatures. If applic	ant is not the owner, both must si that information provided on this	gn the application. form and all attachments submitte	d herewith is true to the best	
I hereby affirm t and belief. False Further, the appli- arising out of the costs of every na of not more than conceals, or cove Unto J Hoch Signature of Applicant Signature of Owner Shur Medica	Statements made herein are puilicant accepts full responsibility f e project described herein and agame and description resulting from 1 \$10,000 or imprisonment for noters up a material fact; or knowing Clint Babe Printed Name Reserver Printed Name Printed Name Shave N	hishable as a Class A misdemeanor or all damage, direct or indirect, o prees to indemnify and save harmli- nsaid project. In addition, Federal I it more than 5 years, or both when ly makes or uses a false, fictitious of <u>sock</u> <u>Proje</u> <u>Title</u> <u>Densis Hoy</u> + E	r pursuant to Section 210.45 if whatever nature, and by wh ess the State from suits, action Law, 18 U.S.C., Section 1001 re an applicant knowingly and or fraudulent statement. ect Manager	of my knowledge of the Penal Law. nomever suffered, ons, damages and provides for a fine willingly falsifies, 8-15-14 Date 8 - 15 - 17 Date 8/15/17
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JOINT APPLICATION FORM 09/10

Application Form Page 2 of 2

ATTACHMENT B

JURISDICTIONAL DETERMINATION REQUEST



Request for a Jurisdictional Determination

This form can be used by individual property owners proposing to perform work on their own property or those attempting to sell/buy property for non-commercial uses and wish to determine if areas on the property contain wetlands or waterways subject to regulatory requirements of the U.S. Army Corps of Engineers (USACE). Please supply the following information and supporting documents described below. This form can be filled out online and then printed. It **must be signed by the property owner** to be considered a formal request. Submitting this request authorizes the USACE to field inspect the property site, if necessary, to help in the determination process. The printed form and supporting documents should be mailed to:

Regulatory Branch U.S. Army Corps of Engineers, Buffalo District 1776 Niagara Street Buffalo, New York 14207-3199

Please contact us at 716-879-4330 if you need any assistance with filling out this form.

Location and Information about Property to be subject to a Jurisdictional Determination

Property Address/Location: Nash Road							
Town/City: Wheatfield		Sta	ate:	NY	Zip:	14120	
County: Niagara	Township name:	Wh	eatfi	eld			
Lat/Long in Decimal Degrees: <u>43.06888</u> Size of Property in Acres: <u>20 acres</u>	9 (Include a su below	°N irvey	<u>78.</u> of th	8575 e prop	erty) *	** see note	°W
Prior or related USACE project number:	N/A						
Is the property subject to a conservation ea If yes, please explain and submit details of	asement or deed res f the project area.	stricti	on?	([]Ye	s or X	No)	

Was the property a site for mitigation pursuant to a project previously permitted by USACE? ($\$ Yes or $\$ No) If yes, please explain and submit details of the project area.

, **,**

Is the property neighboring/adjacent to/bordering a project previously permitted by the USACE? (\Box Yes or \underline{X} No) If yes, please explain and submit the name of the project, the permittee's name and/or address, and Corps permit number, if available:

Property Owner Contact Information:

Property Owner Name: Town of Wheatfield							
Mailing Address:2800 Church Road							
City: Wheatfield	State:	NY	Zip:	14120			
Daytime Telephone: 716-964-6440	Fax:						
E-Mail Address: Supervisor@ wheatfield: ny. US							
If the person requesting the Jurisdictional Determination is not the Property Owner, please also supply the Requestor's contact information here: Requestor Name: Glenn Springs Holdings, Inc., Attn: Mr. Clinton I. Babcock							
Interest in Property, e.g. purchaser Site Remediation							
Mailing Address: 5005 LBJ Freeway, Suite 1350							
City: Dallas	State:	ТХ	Zip:	75244-6119			
Daytime Telephone: 972-687-7506	Fax:	972-687-75	24				
E-Mail Address: <u>Clint_Babcock@oxy.com</u>							

***Note: If the area of proposed work activity on the parcel is less than the total area/acreage of the parcel, distinguish this on the survey map and stake the area out on the site. This will facilitate the Corps field visit by focusing our investigation of the site.

Additionally, if you have any of the following information, please include it with your request: past wetland delineation, relevant maps, drain tile survey, topographic survey, site photographs.

If you are considering doing work on the property, please identify on the site map, survey, or a separate drawing: the footprint, location, and type of potential work. It will assist us in the determination process and reduce unnecessary delays of processing subsequent permits, if required.

PLEASE NOTE: Given heavy workloads, especially during the Spring and Summer months, it may take several months before the Corps is able to inspect your property. Property owners always have the option of securing the services of a consultant to delineate wetlands or waterways and then submit the report for verification by the Corps.

I hereby certify that the information contained in the Request for a Jurisdictional Determination is accurate and complete:

Signature of Property Owner:

Date:

8-15-14

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ATTACHMENT C

FIGURES



85121-00(002)GN-NI001 AUG 4/2014



85121-00(002)GN-NI002 AUG 4/2014





85121-00(002)GN-NI003 AUG 4/2014

CRA

figure 3 AERIAL PHOTOGRAPH OF SITE INTERIM REMEDIAL MEASURES WORK PLAN NASH ROAD LANDFILL *Wheatfield, New York* ATTACHMENT D

COMPLIANCE STATEMENT

1.0 Introduction

A Nationwide Permit 38 (Clean-up of Hazardous Waste and Toxic Waste) (NWP-38) is required for Glenn Springs Holdings, Inc. (Applicant) to address the presence of soils impacted by industrial waste located in the northeast portion of the former Nash Road Landfill (Site). The Site is currently undergoing site remediation (Project) under the guidance of the New York State Department of Environmental Conservation (NYSDEC) (Site #932054). The Interim Remedial Measure Work Plan (Plan) (Dated August 2014), has been prepared by Conestoga-Rovers & Associates, Inc. (CRA) and was approved by the NYSDEC. The Plan is included in Attachment E.

2.0 Site Description and History

The Site is located in the Town of Wheatfield in Niagara County, New York. It is situated immediately north of the City of North Tonawanda city limits and east of Nash Road. A Site Location Plan is provided as Figure 1. The Site is also depicted on the 7.5-minute USGS topographic quadrangle map (Tonawanda West and Tonawanda East, NY) (Figure 2) and on a recent aerial photograph (Figure 3). These figures are provided in Attachment C.

The Site is a rectangular-shaped property encompassing approximately 20 acres. The Site is wooded with trees and heavy brush and contains areas of seasonally-influenced ponded water. Current access to the Site is not provided by any immediately identifiable means; however, historic access to the Site for disposal activities occurred along a haul road that was constructed from Nash Road, located west of the Site. The Study Area for the wetland investigation/delineation is comprised of approximately 7.0 acres in the eastern portion of the Site. The Site is bordered to the north by the Holy Infant Shrine, to the east by a cemetery and a property that contains a motel and livery service, to the south by utility right-of-ways (overhead electric and underground natural gas and brine pipelines) and residences, and to the west by undeveloped land and Nash Road. The Work Area includes all areas that could be potentially impacted by the remedial activities and the access route.

The wetlands within the Project Site were delineated by CRA on April 23, and 24, 2014 (Attachment E). CRA delineated one large wetland complex within the Study Area. The majority of the Project Site is comprised of wooded, scrub-shrub wetlands and emergent wetlands. Small upland areas were delineated within the former haul road alignment within the western portion of the Study Area. The wetlands within the Study Area are part of a larger forested/emergent wetland complex along Nash Road and the adjacent overhead electric lines. The wetlands within the Project Site have been historically disturbed by the construction of a landfill and haul road during the 1960's, the installation of groundwater monitoring wells by the NYSDEC, ATV trails and the installation of underground pipelines. The northeastern portion of the Project Site contains drainage ditches associated with the wetlands along the northern and

eastern property lines. These drainage ditches appear to flow off-site via an 18-inch PVC culvert pipe associated with a pond (off-site). The pond appears to be hydrologically connected to Sawyer Creek via a series of ditches and culvert pipes. The wetlands in the western portion of the Project Site receive their hydrology from a series of road side swales and ditches located west of Nash Road.

The Nash Road Landfill was operated by the Niagara Sanitation Company between 1964 and 1968 for disposal of municipal and industrial wastes. NYSDEC records show that the Site was used for the disposal of industrial and municipal wastes by the Niagara Falls Air Force Base, Bell Aerospace, Carborundum Corporation, Frontier Chemical, Graphite Specialties, Continental Can, and Grief Brothers, as well as local municipalities. Historical records also indicate that the New York State Department of Transportation (NYSDOT) utilized the Site for the disposal of approximately 1,600 cubic yards of material excavated during a sewer relocation project along Frontier Avenue in Niagara Falls, New York, as part of the LaSalle Expressway construction in 1968. The historical records indicate that the 1,600 cubic yards of excavated materials disposed at the Site potentially contained as much as 1,000 cubic yards of industrial wastes associated with the Love Canal Landfill. According to the available documents, the excavated materials were placed into a trench at the northeast end of the Site that was excavated into underlying clay and then covered with soil as well as other municipal and industrial wastes. Waste disposal activities at the Site ended in 1968.

3.0 Project Purpose and Description

The purpose of the requested NWP-38 is to remove the industrial wastes suspected of being associated with road construction activities completed by the NYSDOT during the construction of the LaSalle Expressway along the former Love Canal landfill. The investigations performed at the Site indicate that the current environmental impacts are limited to the general area where the industrial wastes were originally placed. As such, the proposed remediation will prevent potential impacts to human health and the environment from occurring in the future.

The Plan will be implemented to remove the impacted soil wastes from the Site and restore the disturbed portion of the Site to comparable pre-excavation conditions. The Plan outlines the work activities and their location (access roads, fencing, sampling, sheet pile, excavation, dewatering and disposal activities). The remediation activities will temporarily impact approximately 0.95 acres (41,670 SF) for the access road and 3.25 acres (141,550 SF) of wetlands within the Project Site. Alternative alignments for the access road were evaluated using the adjacent utility easements (overhead electric line and natural gas and brine pipelines), but access to the easements were not granted due to concerns of impacts by the access road on the lines. The Plan also details the restoration of the impacted area which will be to remove the stone access road, remove sheet piles, backfill with fill/soil meeting NYSDEC DER-10

requirements for fill use, and topsoil and seed with an appropriate seed mixture. The remediation activities associated with the Project are depicted on the Wetland Permitting Plans (Attachment I).

4.0 Activities Authorized By Nationwide Permit 38 (Clean-up of Hazardous and Toxic Waste) Within the State Of New York (General and Regional Permit Conditions. (Expiration March 18, 2017)

Specific activities required to effect the containment, stabilization, or removal of hazardous or toxic waste materials that are performed, ordered, or sponsored by a government agency with established legal or regulatory authority. Court ordered remedial action plans or related settlements are also authorized by this NWP. This NWP does not authorize the establishment of new disposal sites or the expansion of existing sites used for the disposal of hazardous or toxic waste.

<u>Notification</u>: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 31.) (Sections 10 and 404)

This application serves as the pre-construction notification to the District Engineer for the remediation of the Site.

Note: Activities undertaken entirely on a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) site by authority of CERCLA as approved or required by EPA, are not required to obtain permits under Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act.

The activities are not taking place on a CERCLA site, thus a permit under Section 404 of the Clean Water Act is required.

- Buffalo District Only Permit-specific Regional Conditions: None
- Section 401 Water Quality Certification:

The New York State Department of Environmental Conservation (NYSDEC) has denied Section 401 Water Quality Certification in New York State for this Nationwide Permit. Any party conducting the activities authorized by this NWP must apply for and obtain an individual Section 401 Water Quality Certification from the New York State Department of Environmental Conservation.

This Application also serves as the compliance document for the NYSDEC Individual Section 401 Water Quality Certification.

• New York State Department of State Coastal Zone Management Consistency Determination:

Pursuant to 15 CFR Part 930.41, the New York State Department of State (NYSDOS) concurs with the USACE consistency determination for this NWP with which all general and all Buffalo and New York District regional conditions are complied.

The Site is not located in a New York State Department of State Coastal Zone Management Area.

C. Nationwide Permit General Conditions

- Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR §§ 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR § 330.5 relating to the modification, suspension, or revocation of any NWP authorization.
 - 1. <u>Navigation.</u> (a) No activity may cause more than a minimal adverse effect on navigation.

The Project is not located within a Section 10 or Navigable Water. The Project will not impact Navigation.

2. <u>Aquatic Life Movements.</u> No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless t he activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species.

The Project will not impact the movements of aquatic life.

3. <u>Spawning Areas.</u> Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

There are no anticipated impacts to spawning areas by the Project. Strict Erosion and Sedimentation measures will be implemented on the Project Site.

4. <u>Migratory Bird Breeding Areas.</u> Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

There are no anticipated impacts to migratory bird breeding areas by the proposed Project.

5. <u>Shellfish Beds.</u> No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

The Project will not impact shellfish beds, since it is not related to a shellfish harvesting activity.

6. <u>Suitable Material.</u> No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

The Project will use suitable fill and other construction materials that will be free from toxic pollutants in toxic amounts under Section 307 of the Clean Water Act. The fill and other soil material will meet the NYSDEC DER-10 requirements for fill use.

7. <u>Water Supply Intakes.</u> No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

The Project will not take place in the proximity of a public water supply intake.

8. <u>Adverse Effects From Impoundments.</u> If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of

water, and/or restricting its flow must be minimized to the maximum extent practicable.

The Project will not create an impoundment of water.

9. <u>Management of Water Flows.</u> To the maximum extent practicable, the preconstruction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the preconstruction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

The Project will maintain to the maximum extent practicable, the preconstruction course, condition, capacity, and location of open waters.

10. <u>Fills Within 100-Year Floodplains.</u> The activity must comply with applicable FEMAapproved state or local floodplain management requirements.

The FEMA Map Panel Number 36063C0353E, effective on 09/17/2010 does not map any floodplains within the Project Area, thus the Project will not impact the 100-year floodplain.

11. <u>Equipment.</u> Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

Access roads and the operations area will be constructed on Site in the locations shown on the Plan. Current access to the Project Site is not provided by any immediately identifiable means; however, historic access to the Site for disposal activities occurred along a haul road that was constructed from Nash Road, located west of the Project Site. The temporary fills are required during excavation activities to allow for vehicle access into the Project Site and to the support and material loading areas. The access road is intended to provide a stable base for heavy machinery operation and will be constructed of compacted #2 size run of crusher stone and/or crushed recycled asphalt to reduce the potential for dust generation. The access roads will be underlain by a geotextile fabric to limit soil disturbance and allow for their removal. Once the activities are completed the access road within the wetlands will be removed and the areas will be stabilized with an approved seed mixture.

12. <u>Soil Erosion and Sediment Controls.</u> Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

Erosion and Sediment Controls will be implemented as part of the Project in accordance with the New York State Standards and Specifications for Erosion and Sediment Control. There will also be dust and odor control Best Management Practices implemented as part of the proposed project. The sediment and erosion control methods employed will be inspected and maintained daily and repaired as needed.

The project will be subject to the NYSDEC State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction GP-0-10-001 (Construction General Permit). A Construction Stormwater Pollution Prevention Plan (Construction SWPPP) will be prepared by CRA as part of the coverage of the Construction General Permit. The Construction SWPPP will include the stormwater management practices to be followed during field activities, including Erosion and Sediment Control practices.

13. <u>Removal of Temporary Fills</u>. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

The temporary fills for the Project (access road and the remediation activities) will be removed and the areas will be returned to pre-construction grades, as feasible. The area will be stabilized using an appropriate seed mixture.

14. <u>Proper Maintenance</u>. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

The activities authorized for this Project under the NWP-38 will be properly maintained in accordance with the NWP conditions and the Plan.

15. <u>Single and Complete Project</u>. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

The activities authorized for this Project under the NWP-38 are a single and complete project.

16. <u>Wild and Scenic Rivers.</u> No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

The Project will not impact the National Wild and Scenic River System (officially designate or Study River). No National Wild and Scenic Rivers are found within Niagara County (http://www.rivers.gov/new-york.php).

17. <u>Tribal Rights.</u> No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

The Project will not impact tribal rights.

18. Endangered Species. (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.

CRA reviewed the U.S. Fish and Wildlife Service's Information, Planning and Consultation system (IPaC) for potential threatened and endangered species in the vicinity of the Project Site. The IPaC review identified the northern long-eared bat (Myotis septentrionalis), a proposed endangered species, within the vicinity of the Site. While the northern long-eared bat was identified within the vicinity of the Site, the IPaC review did not identify any critical habitat for the northern longeared bat within the Site boundaries. The Project is not anticipated to impact the population of northern long-eared bat or the habitat of migratory birds due to the existing conditions, historically disturbed nature of the Site, and surrounding landuses. CRA also reviewed the NYSDEC Environmental Resource Mapper for threatened and endangered species within the Site. This program did not identify

any threatened and endangered species within the Site. Letters were submitted to the U.S. Fish and Wildlife Service's and NYSDEC's Natural Heritage Programs to identify potential conflicts with threatened or endangered species within the Project Area (Attachment G).

19. <u>Migratory Birds and Bald and Golden Eagles</u>. The permittee is responsible for obtaining any "take" permits required under the U.S. Fish and Wildlife Service's regulations governing compliance with the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act. The permittee should contact the appropriate local office of the U.S. Fish and Wildlife Service to determine if such "take" permits are required for a particular activity.

There are no anticipated impacts to migratory birds or eagles (Bald or Golden) by the proposed Project. The proposed project will not require a "take" permit required under the U.S. Fish and Wildlife Service's regulations governing compliance with the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act. A letter was submitted to the U.S. Fish and Wildlife Service to identify potential conflicts under the Bird Treaty Act or the Bald and Golden Eagle Protection Act within the Project Area (Attachment G).

20. <u>Historic Properties</u>. In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

The Project Site is not listed on the National or State Register of Historic Places. The Project Site is currently undeveloped (absence of buildings and structures) and was historically used as a landfill during the 1960's. The industrial wastes within the soils on the Site are located approximately 10 to 12 feet below the existing ground surface. The majority of the Site has been historically excavated and disturbed (underground pipelines, landfill activities and monitoring well installation). A letter was submitted to the New York State Office of Parks and Recreation and Historic Preservation (NYPRHP), Historical Preservation Field Services Bureau to identify potential conflicts with historical sites within the Project Area (Attachment G).

21. <u>Discovery of Previously Unknown Remains and Artifacts</u>. If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate

the Federal, Tribal and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

The Project is located within a Site that has been historically excavated and filled due to its previous use as a landfill. If during the excavation activities any previously unknown historic, cultural or archeological remains and/or artifacts are discovered, the construction will cease and the district engineer will be immediately notified. The majority of the soil within the Project Site was historically excavated to approximately 10 to 12 below the ground surface and removed to allow for the placement of industrial waste in the 1960's. The historical excavations (landfill creation, installation of groundwater monitoring wells and underground pipelines) and soil removal limit the potential for archeological resources within the Project Site.

A letter was submitted to the New York State Office of Parks and Recreation and Historic Preservation (NYPRHP), Historical Preservation Field Services Bureau to identify potential conflicts with historical or archeological sites within the Project Area (Attachment G).

22. <u>Designated Critical Resource Waters</u>. Critical resource waters include, NOAAmanaged marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

The Project is not located within a designated critical resource water, thus not applicable.

23. <u>Mitigation</u>. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that adverse effects on the aquatic environment are minimal.

There is no mitigation required as part of the Project. As described in the Plan, the Project will be implemented to remove the impacted soil wastes from the Site and restore the disturbed portion of the Site to comparable pre-excavation conditions. The Plan outlines the work activities and their location (access roads, fencing, sampling, sheet pile, excavation, dewatering and disposal activities). The remediation activities will temporarily impact approximately 0.95 acres (41,670 SF)

for the access road and 3.25 acres (141,550 SF) of wetlands within the Project Site. The Plan also details the restoration of the impacted area which will be to remove the stone access road, remove sheet piles, backfill with fill/soil meeting NYSDEC DER-10 requirements for fill use, and topsoil and seed with an appropriate seed mixture.

25. <u>Water Quality</u>. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA Section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

This Application also serves as the compliance document for the NYSDEC Individual Section 401 Water Quality Certification. The Project will not degrade the water quality within the Project Site or Sawyer Creek. The Project will improve water quality by removing impacted soil wastes from the Project Site and disposing of it in an approved disposal facility.

26. <u>Coastal Zone Management</u>. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

The Project Site is not located within a Coastal Management Area, thus is not applicable.

27. <u>Regional and Case-By-Case Conditions</u>. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

The Project will comply with the regional and case-by-case conditions for the NWP and section 401 Water Quality Certification.

28. <u>Use of Multiple Nationwide Permits</u>. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is

constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

All proposed Project activities can be completed under NWP-38. Therefore, the use of multiple NWPs will not be required.

29. <u>Transfer of Nationwide Permit Verifications</u>. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer.

If a transfer of the NWP-38 is required, the Applicant will transfer the permit in accordance with Item #29.

30. <u>Compliance Certification</u>. Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter.

Once the activities are completed under the NWP, the Applicant will notify the USACE via a letter in accordance with Item #30.

31. Pre-Construction Notification.

This Application also serves as the pre-construction notification.

ATTACHMENT E

INTERIM REMEDIAL ACTION WORKPLAN

ATTACHMENT F

WETLAND DELINEATION REPORT



410 Eagleview Blvd, Suite 110 Exton, Pennsylvania 19341 Telephone: (610) 321-1800 http://www.craworld.com

Fax: (610) 321-2763

Reference No. 085121

August 19, 2014

Mr. Clinton J. Babcock Glenn Springs Holdings, Inc. 5005 LBJ Freeway, Suite. 1350 Dallas, Texas 75244-6119

Dear Mr. Babcock:

Re: Wetland Delineation Report Interim Remedial Measures Work Plan Glenn Springs Holdings, Inc. Nash Road Landfill Project Town of Wheatfield, Niagara County, New York

Conestoga-Rovers & Associates, Inc. (CRA) was retained by Glenn Springs Holdings, Inc. to conduct a wetland delineation as part of the Interim Remedial Measures Work Plan for the former Nash Road Landfill (Site). The Site is located on the eastern side of Nash Road in the Town of Wheatfield, Niagara County, New York. CRA's Study Area for the wetland delineation consisted of the proposed area of excavation, sheet pile exclusion zone, support zone and access road located in the northeastern portion of the Site. The location of the Site and Study Area are depicted on Figure 1. The access road generally parallels the southern property line in a westerly direction towards Nash Road. The results of the wetland delineation conducted on April 23 and 24, 2014 are discussed in the following paragraphs.

1.0 Introduction

This report discusses the methodology and results of CRA's wetland delineation. This report also includes copies of the 7.5-minute USGS topographic quadrangle map (Tonawanda West and Tonawanda East, NY) (Figure 2), a recent aerial photograph (Figure 3), the Natural Resource Conservation Service (NRCS) Soil Survey for Niagara County (Figure 4), the United States Fish and Wildlife Service National Wetland Inventory (NWI) Map (Figure 5), survey plans showing the Study Area boundaries, wetland areas and existing features (Figures 6A and 6B), and the New York State Department of Environmental Conservation (NYSDEC) Environmental Resource Map (Figure 7), each depicting the location of the Study Area. Completed data forms documenting the establishment of the wetland boundaries within the Study Area are provided in Appendix A. Appendix B contains color photographs documenting the existing conditions observed within the Study Area during the field investigation on April 23 and 24, 2014.





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2.0 Methodology

Prior to CRA's field inspection of the Study Area, CRA reviewed available secondary sources of information including: the USGS topographic map, the Niagara County Soil Survey, recent aerial photographs and other available resource mapping. These secondary sources of information are often useful in identifying areas that may contain wetlands.

CRA's wetland delineation was conducted in accordance with the methods of the Corps 1987 Wetland Delineation Manual and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0). According to this methodology, wetlands are identified by the presence of three parameters: hydrophytic vegetation, hydric soil and positive indicators of wetland hydrology. Typically all three parameters must be present for an area to be considered jurisdictional wetlands. However, in areas where one or more of the wetland areas have been significantly disturbed (e.g. mowed lawn areas, farmed areas, etc.) the remaining parameters and best professional judgment are used to delineate the extent of jurisdictional wetlands.

3.0 Site Description and Review of Secondary Data

The Study Area is comprised of the former Nash Road Landfill which was operated by the Niagara Sanitation Company between 1964 and 1968 for disposal of municipal and industrial wastes. The Site is a rectangular-shaped property (historically disturbed) encompassing approximately 20 acres and is wooded with trees and heavy brush with areas of seasonally-influenced surface and groundwater. The Study Area for the wetland delineation is approximately 7 acres in size. Current access to the Study Area is not provided by any immediately identifiable means; however, historic access to the Site for disposal activities occurred along a haul road that was constructed from Nash Road, west of the Site. The Study Area is currently undergoing site remediation under the guidance of the New York State Department of Environmental Conservation (NYSDEC) (Site #932054).

As shown on USGS Quadrangle Map for Tonawanda (East and West), New York (Figure 2), the Study Area is bordered to the north by the Holy Infant Shrine, to the east by a cemetery and a property that contains a motel and livery service, to the south by utility rights-of-ways (overhead electric and underground natural gas and brine pipelines) and residences, and to the west by undeveloped land and Nash Road. The topography within the Study Area is relatively flat. The USGS map does not identify any wetlands within the Study Area but it does map an open water feature in the northeastern portion of the Study Area.



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A recent aerial photograph (Figure 3) shows the existing conditions within the Study Area. As shown on Figure 3, the Study Area is primarily woodlands with a series of dirt trails. There are two small open water features within the Study Area (along Nash Road and in the northeastern corner). The western portion of the Study Area contains a roadside swale that runs parallel to Nash Road and is fed by a culvert underneath Nash Road. The culvert pipe receives drainage from a roadside swale and a drainage ditch located west of Nash Road. The northeastern portion of the Study Area contains drainage ditches along the northern and eastern property lines. These drainage ditches appear to flow off-site via an 18-inch PVC pipe to a man-made pond on an adjacent property. The pond appears to be hydrologically connected to Sawyer Creek via a ditch and a culvert pipe underneath Niagara Falls Boulevard. Sawyer Creek flows in a southeasterly direction before discharging to the main stem of Tonawanda Creek, which ultimately discharges to the Niagara River.

As shown in the Natural Resource Conservation Service (NRCS) Niagara County Soil Survey (Figure 4), the following soil series are mapped within the Study Area:

- Ca: Canandaigua silt loam; very poorly drained; predominately hydric
- RaA: Raynham silt loam, 0 to 2 percent slopes; poorly drained, partially hydric.

The mapped soils within the Study Area are rated as predominantly hydric (Canandaigua) to partially hydric (Raynham) according to the NRCS Niagara County Soil Survey. The Raynham soil series is mapped within the majority of the Study Area. The Canandaigua soil series bisects the central portion of the Study Area (access road).

The National Wetlands Inventory (NWI) Map (Figure 5) identifies two wetland complexes, freshwater forested and shrub wetlands (PFO1Bds and PSS1Ad), and two open water features (PUBHx and PUBFx) within the Study Area. The NWI Map also identifies two wetland complexes immediately adjacent to the Study Area comprised of freshwater forested (PFO1B) and emergent (PEM1Bd) wetlands. The NYSDEC Resource Mapper (Figure 7) does not identify any New York State regulated wetlands, wetland check zones (buffers) or waters within the Study Area.

4.0 Results of Site Investigation

The majority of the Study Area is comprised of wooded, scrub-shrub wetlands and emergent wetlands. CRA delineated one large wetland complex within the Study Area. Small upland



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areas were delineated within the former haul road alignment within the western portion of the Study Area. The wetland area within the Study Area is part of a larger forested/emergent wetland complex along Nash Road and the adjacent overhead electric lines. The wetlands within the Study Area have been historically disturbed by the construction of a landfill and haul road during the 1960's, the installation of groundwater monitoring wells by the NYSDEC, ATV trails and the construction of underground pipelines. The northeastern portion of the Study Area contains drainage ditches associated with the wetlands along the northern and eastern property lines. These drainage ditches appear to flow off-site via an 18-inch PVC culvert pipe associated with a pond (off-site). The pond appears to be hydrologically connected to Sawyer Creek via a series of ditches and culvert pipes. The wetlands in the western portion of the Study Area receive their hydrology from a series of road side swales and ditches located west of Nash Road.

The wetland and upland areas are discussed in more detail in the following sections.

4.1 Wetland Areas

The wetlands with the Study Area total approximately 6.0 acres. Flags WA-101 to WA-130, WB-101 to WB-115, WC-101 to WC-134 and WG-101 to WG-114 delineate the extent of wetlands with the Study Area. The wooded portions of the wetland are dominated by eastern, cottonwood (*Populus deltoides*), black willow (*Salix nigra*), weeping willow (*Salix babylonica*), silver maple (*Acer saccharinum*), green ash (*Fraxinus pennsylvanica*), pin oak (*Quercus palustris*), gray birch (*Betula populifolia*), spicebush (*Lindera benzoin*), silky dogwood (*Cornus amomum*), common reed (*Phragmites australis*), reed canary grass (*Phalaris arundinacea*) and sensitive fern (*Onoclea sensibilis*). Small pockets of emergent wetlands were identified along a former access road alignment adjacent to the overhead utility line and within the northwestern corner of the Study Area. The vegetation with the emergent wetlands is dominated by reed canary grass, common reed, broad-leaved cattail (*Typha latifolia*), soft rush (*Juncus effusus*), purple loosestrife (*Lythrum salicaria*) and sedge/rush species (*Carex* and *Juncus* spp.).

The soils within the Study Area were comprised of historical fill (possibly dredge material) used to cover the landfill. The soils within the wetlands in the Study Area are highly variable due to the use of fill and other historical disturbances. The soil from 0-18 inches was generally observed to be a mixture of black (10YR 2/1), very dark gray (10YR 3/1), dark gray (10YR 4/1), gray (10YR 5/1), very dark brown (10YR 2/2), dark grayish brown (10YR 4/2) and brown (10YR 5/2) clay loam with yellowish red (5YR 5/8), strong brown (7.5YR 5/8) and yellowish brown (10YR 5/6) concentrations. The majority of the Study Area primarily receives its hydrology from



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a perched seasonal high groundwater table and surface runoff from the adjacent ditches and housing developments. Indicators of wetland hydrology observed included saturation of the soil at the ground surface, ponded surface water (0-12 inches in depth), groundwater in soil borings at the ground surface, blackened leaves, drainage patterns, and water marks on trees. The wetlands within the Study Area are documented on Data Forms DP-101 through DP-108, DP-110, DP-111, DP-114 and DP-115 in Appendix A and in the color photographs in Appendix B.

4.2 Uplands

The uplands within the Study Areas include small pocket uplands associated with a former access road, the former landfill, and portions of a pipeline (gas and brine line) easement. Flags WD-101 to WD-125, WE-101 to WE-125 and WF-101 to WG-122 delineate the extent of uplands associated with the former haul road within the Study Area. The dominant vegetation on the upland portions of the haul road consists of white oak (*Quercus alba*), black cherry (*Prunus serotina*), eastern cottonwood, multiflora rose (*Rosa multiflora*), Canada goldenrod (*Solidago canadensis*) ground ivy (*Glechoma hederacea*), common dandelion (*Taraxacum officinale*), plantain (*Plantago major*) Queen Anne's lance (*Daucus carota*), wild onion (*Allium vineale*), Kentucky bluegrass (*Poa pratensis*) and milkweed (*Asclepias syriaca*). Similar to the soil in the wetlands, the soil within the upland areas of the former haul road and landfill are comprised of fill and from 0 to 18 inches generally consist of a mixture of dark yellowish brown to very dark grayish brown (10YR 3/2), dark grayish brown (10YR 4/2) and dark brown (10YR 3/3) silt loam. Indicators of wetland hydrology were absent within the uplands portions of the Study Area. The uplands within the Study Area are documented on Data Forms DP-109, DP-111 and DP-113 in Appendix A and in the color photographs in Appendix B.

5.0 Conclusions

CRA's wetland investigation for the proposed remediation project identified and delineated wetlands within a large portion of the Study Area. The majority of the Study Area is comprised of wooded, scrub-shrub and emergent wetlands with small upland areas within the former haul road alignment within the western portion of the Study Area. The Study Area historically disturbed by former landfill activities within the Site and other past uses. The soils within the Study Area were comprised of historical fill (possibly dredge material) used to cover the landfill.

Wetlands and waterways are regulated by the United States Army Corps of Engineers (COE) and/or the NYSDEC. Activities such as earth disturbance, filling, or excavation in these areas will likely require permits or approvals from these agencies. Therefore, a Jurisdictional



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Determination from the COE and NYSDEC will be applied for as part of the Nationwide Permit 38 (NWP-38) application and NYSDEC Water Quality Application. The NWP-38 application will authorize activities associated with the remediation Project that will temporarily impact the delineated wetland areas within the Study Area.

If you require any additional information or assistance, please contact me at (610) 321-1800 ext. 15 or at <u>candes@craworld.com</u>.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Anoto & Curde

Christopher S. Andes Wetlands Scientist

CSA/smk/1 Encl.

cc: Mr. Dennis Hoyt, P.E., Conestoga-Rovers & Associates

FIGURES



85121-00(002)GN-NI001 AUG 4/2014



85121-00(002)GN-NI002 AUG 4/2014




85121-00(002)GN-NI003 AUG 4/2014

CRA

figure 3 AERIAL PHOTOGRAPH OF SITE INTERIM REMEDIAL MEASURES WORK PLAN NASH ROAD LANDFILL *Wheatfield, New York*



Wheatfield, New York





SOURCE: NEW YORK STATE CLEARINGHOUSE, 2011 IMAGE DATASET

NASH ROAD LANDFILL Wheatfield, New York





SOURCE: NEW YORK STATE CLEARINGHOUSE, 2011 IMAGE DATASET



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UPLAND

WETLAND DELINEATION PLAN INTERIM REMEDIAL MEASURES WORK PLAN NASH ROAD LANDFILL *Wheatfield, New York* [print page] [close window]

Please set your printer orientation to "Landscape".



Disclaimer: This map was prepared by the New York State Department of Environmental Conservation

using the most current data available. It is deemed accurate but is not guaranteed. NYS DEC is not responsible for any inaccuracies

in the data and does not necessarily endorse any interpretations or products derived from the data.

figure 7 NYSDEC ENVIRONMENAL RESOURCES MAP INTERIM REMEDIAL MEASURES WORK PLAN NASH ROAD LANDFILL Wheatfield, New York APPENDIX A

DATA SHEETS

Project/Site: Nash Road Landfill	City/County: Wheatfield/Niagara C	ounty Sampl	ling Date: April 2	3, 2014
Applicant/Owner: Glenn Springs Holdings, Inc.		State: NY	Sampling Point:	DP-101
Investigator(s): Christopher S. Andes and Leah Pabst - CRA	Section, Township, Range:			
Landform (hillside, terrace, etc.): Terrace	Local relief (concave, convex, none):	concave	Slope (%):	0-2
Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 1118500	Long: 1075577		Datum: NAE	0 83
Soil Map Unit Name: Raynham silt loam, 0 to 2 percent slopes (Ra	A)	NWI classification:	PFO1Bds	
Are climatic / hydrologic conditions on the site typical for this time c	of year? Yes <u>X</u> No (It	no, explain in Rema	arks.)	
Are Vegetation, Soil, or Hydrologysignification	antly disturbed? Are "Normal Circum	stances" present?	Yes <u>X</u> N	lo <u> </u>
Are Vegetation, Soil, or Hydrologynatural	ly problematic? (If needed, explain a	any answers in Rem	arks.)	

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present	t? Yes_	X No	b Is the San	npled Area	V V N-	
Hydric Soll Present?	Yes_		within a v	ional Wotland Site ID:		
Remarks: (Explain alternative p Presence of the three required	procedures here of wetland criteria. I	or in a sepa Data point is	s located within a former l	landfill.		
HYDROLOGY						
Wetland Hydrology Indicators Primary Indicators (minimum of X Surface Water (A1) High Water Table (A2) X Saturation (A3) X Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) X Inundation Visible on Aeria Sparsely Vegetated Conca	i one is required; one is required; I Imagery (B7) ve Surface (B8)	<u>check all th</u> <u>X</u> Wate Aquai Marl I Hydro Oxidi: Prese Rece Thin I Other	<u>at apply)</u> r-Stained Leaves (B9) tic Fauna (B13) Deposits (B15) ogen Sulfide Odor (C1) zed Rhizospheres on Livi ence of Reduced Iron (C4 ent Iron Reduction in Tilled Muck Surface (C7) r (Explain in Remarks)	ng Roots (C3) X S b) X S d Soils (C6) X S X S X S X F	hdary Indicators (minimum of tw surface Soil Cracks (B6) Prainage Patterns (B10) Moss Trim Lines (B16) Pry-Season Water Table (C2) Grayfish Burrows (C8) Faturation Visible on Aerial Image Stunted or Stressed Plants (D1) Geomorphic Position (D2) Schallow Aquitard (D3) Microtopographic Relief (D4) AC-Neutral Test (D5)	<u>vo required)</u> gery (C9)
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (strea	Yes X No Yes X No Yes X No m gauge, monito	Dep Dep Dep Dep	oth (inches): 0-1 oth (inches): 16 oth (inches): 11 erial photos, previous insp	Wetland Hydrolog	y Present? Yes <u>X</u>	No
Remarks: Presence of Wetland Indicators	of Hydrology (pr	imary and s	secondary) and other field	l observations (surface	e water, water table and saturat	ion).

Г

Trop Stratum (Plot size: 20)	Absolute	Dominant	Indicator	Deminance Test worksheet
<u>Iree Stratum</u> (Mot size. <u>50</u>)	% COver	Species:		Dominance rest worksneet:
	- 40	Vec	EAC	Number of Dominant Species
2. Populus denoides	30	Vee		$\frac{1}{1}$
3. Sanx nigra	25	res	OBL	Total Number of Dominant
4				Species Across All Strata:(B)
5		·		Percent of Dominant Species
6		·		That Are OBL, FACW, or FAC: <u>85.7%</u> (A/B)
7		·		Prevalence Index worksheet:
	100	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15)				OBL species25 x 1 =25
1. Lindera benzoin	15	Yes	FACW	FACW species 80 x 2 = 160
2. Cornus amomum	30	Yes	FACW	FAC species 75 x 3 = 225
3				FACU species 0 x 4 = 0
4				UPL species 0 x 5 = 0
5				Column Totals: 180 (A) 410 (B)
6.				Prevalence Index = B/A = 2.28
7.				Hydrophytic Vegetation Indicators:
	45	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5)				X 2 - Dominance Test is >50%
1. Phragmites australis	35	Yes	FACW	X 3 - Prevalence Index is ≤3.0 ¹
2. Carex spp	20	Yes		4 - Morphological Adaptations ¹ (Provide supporting
3.				data in Remarks or on a separate sheet)
4.				Problematic Hydrophytic Vegetation ¹ (Explain)
5				¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
7				Definitions of Vegetation Strata:
8				Tree – Woody plants 3 in. (7.6 cm) or more in
9		·		diameter at breast height (DBH), regardless of height.
10				Sapling/shrub – Woody plants less than 3 in. DBH
11				and greater than or equal to 3.28 ft (1 m) tall.
12				Herb – All herbaceous (non-woody) plants, regardless
	55	=Total Cover		of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size: 30)				Woody vines – All woody vines greater than 3.28 ft in
1				height.
2				
3				Hydrophytic Vegetation
4.				Present? Yes X No
		=Total Cover		
Remarks: (Include photo numbers here or on a sepa	rate sheet.)			•
Dominance of wetland vegetation.	,			

Profile D	escription: (Describe	to the d	epth needed to docu	ment the	e indicate	or or con	nfirm the absence of	of indicato	rs.)	
Depth	Matrix		Redo	x Feature	es1	. 2	_			
(inches)	Color (moist)	%	Color (moist)	%	Туре'	Loc	Texture		Remarks	
0-8	10YR 4/2	95	7.5YR 5/8	5	D	M	Loamy/Clayey			
8-18	10YR 5/1	80	10YR 6/8	20	С	М	Loamy/Clayey	Promin	ent redox conc	centrations
							·			
							·			
							·			
¹ Type: C	=Concentration, D=Dep	oletion, R	M=Reduced Matrix, C	S=Cover	red or Coa	ated Sand	d Grains. ² Loc	ation: PL=	Pore Lining, M	=Matrix.
Hydric So	oil Indicators:		Polyaduo Bolow	. Surface		DD	Indicators fo	r Problema	atic Hydric Soi	ils": \ 140B\
Histo	r = 1			Junace	; (00) (L R	ι, ι,	2 cm Mut			1 P)
Place	L Lpipedon (A2)		Thin Dark Surfa	oo (SO) (\mathbf{P} E om Mu		(A10) (LKK K,	
				ce (59) (i		LKA 148		sky Peat of	Pear (53) (LR	\mathbf{K} \mathbf{K} , \mathbf{L} , \mathbf{K})
Hydr	ogen Sulfide (A4)		High Chroma Sa	ands (S1	1) (LRR M	(, L)	Polyvalue	Below Sur	face (S8) (LRI	Κ Κ, L)
Strat	ified Layers (A5)		Loamy Mucky M	lineral (F	1) (LRR P	(, L)	I hin Dark	Surface (S	59) (LRR K, L)	
Depl	eted Below Dark Surfac	ce (A11)	Loamy Gleyed N	Aatrix (F2	2)		Iron-Man	ganese Ma	sses (F12) (LR	R K, L, R)
Thick	c Dark Surface (A12)		x Depleted Matrix	(F3)			Piedmon	t Floodplain	n Soils (F19) (N	ILRA 149B)
Sanc	ly Mucky Mineral (S1)		Redox Dark Sur	face (F6))		Mesic Sp	odic (TA6)	(MLRA 144A,	1 45, 149B)
Sanc	ly Gleyed Matrix (S4)		Depleted Dark S	Surface (I	F7)		Red Pare	ent Material	(F21)	
Sanc	ly Redox (S5)		Redox Depressi	ons (F8)			Very Sha	llow Dark S	Surface (TF12)	
Strip	ped Matrix (S6)		Marl (F10) (LRR	K, L)			Other (Ex	plain in Re	marks)	
Dark	Surface (S7)									
³ Indicator	s of hydrophytic vegeta	ation and	wetland hydrology mu	st he pre	esent unle	ess distu	rbed or problematic			
Restrictiv	ve Layer (if observed)	:	weitana nyarology ma							
Type:										
Depth ((inches):						Hydric Soil Pre	sent?	Yes X	No
Remarks	:									
Chroma o	of 1 with mottles @ 12 i	nches.								
Data form	n is revised from Northo	entral an	d Northeast Regional	Supplem	nent Versi	on 2.0 to	reflect the NRCS F	ield Indicate	ors of Hydric S	oils version 7.0
March 20	13 Errata. (http://soils.u	usda.gov/	(use/hydric)							

Project/Site: Nash Road Landfill	City/County: Wheatfield/Niagara Co	ounty Sampl	ing Date: April 2	3, 2014
Applicant/Owner: Glenn Springs Holdings, Inc.		State: NY	Sampling Point:	DP-102
Investigator(s): Christopher S. Andes and Leah Pabst - CRA	Section, Township, Range:			
Landform (hillside, terrace, etc.): Terrace	Local relief (concave, convex, none):	concave	Slope (%):	0-2
Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 1188472	Long: 1075691		Datum: NAI	D 83
Soil Map Unit Name: Raynham silt loam, 0 to 2 percent slopes (Ra	A)	NWI classification:	PFO1Bds	
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes <u>X</u> No (If	no, explain in Rema	arks.)	
Are Vegetation, Soil, or Hydrologysignific	antly disturbed? Are "Normal Circum	stances" present?	Yes X N	lo
Are Vegetation, Soil, or Hydrologynatural	ly problematic? (If needed, explain a	any answers in Rem	arks.)	

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Presen	it? Yes_	X	No	Is the Sampled Area	
Hydric Soil Present?	Yes_	<u>×</u>		within a wetland?	
wetiand Hydrology Present?		<u>×</u>		ir yes, optional wetland s	
Remarks: (Explain alternative Presence of the three required	procedures here o wetland criteria. [or in a si Data poi	eparate report.) nt is located withi	in a former landfill.	
HYDROLOGY					
Wetland Hydrology Indicator	s:				Secondary Indicators (minimum of two required)
Primary Indicators (minimum o	f one is required;	check a	Il that apply)		Surface Soil Cracks (B6)
X Surface Water (A1)		<u> </u>	ater-Stained Lea	ves (B9)	Drainage Patterns (B10)
X High Water Table (A2)		A	quatic Fauna (B1	3)	Moss Trim Lines (B16)
X Saturation (A3)		M	arl Deposits (B15	5)	Dry-Season Water Table (C2)
X Water Marks (B1)		H	ydrogen Sulfide C	Ddor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)		0	xidized Rhizosph	eres on Living Roots (C3)	X Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)		P	resence of Reduc	ced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)		R	ecent Iron Reduc	tion in Tilled Soils (C6)	X Geomorphic Position (D2)
Iron Deposits (B5)		Tł	hin Muck Surface	e (C7)	Shallow Aquitard (D3)
X Inundation Visible on Aeria	al Imagery (B7)	0	ther (Explain in R	lemarks)	Microtopographic Relief (D4)
Sparsely Vegetated Conca	ave Surface (B8)			•	X FAC-Neutral Test (D5)
Field Observations:					
Surface Water Present?	Yes X No		Depth (inches):	0-2	
Water Table Present?	Yes X No	I	Depth (inches):	12	
Saturation Present?	Yes X No	I	Depth (inches):	Surface Wetland Hy	/drology Present? Yes X No
(includes capillary fringe)					
Describe Recorded Data (strea	im gauge, monitor	ring well	l, aerial photos, p	revious inspections), if ava	ilable:
Demortro					
Presence of Wetland Indicators	s of Hydrology (pr	imarv a	nd secondary) an	d other field observations (surface water water table and saturation)
	y or righterology (pr	intery er	a secondary) an		

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Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant	Indicator Status	Dominance Test worksheet
1. Populus deltoides	45	Yes	FAC	
2 Fraxinus pennsylvanica	25	Yes	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)
3.				
4.				Species Across All Strata: 5 (B)
5.				
6.				That Are OBL, FACW, or FAC: 80.0% (A/B)
7.				Prevalence Index worksheet:
	70	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15)			OBL species 0 x 1 = 0
1. Lindera benzoin	45	Yes	FACW	FACW species 105 x 2 = 210
2. Cornus amomum	35	Yes	FACW	FAC species 45 x 3 = 135
3.				FACU species 10 $x 4 = 40$
4.				UPL species $0 \times 5 = 0$
5.				Column Totals: 160 (A) 385 (B)
6.				Prevalence Index = $B/A = 2.41$
7.				Hydrophytic Vegetation Indicators:
	80	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5)				X 2 - Dominance Test is >50%
1. Carex spp	30	Yes		X 3 - Prevalence Index is $\leq 3.0^1$
2. Glechoma hederacea	5	No	FACU	4 - Morphological Adaptations ¹ (Provide supporting
3. Fragaria virginiana	5	No	FACU	data in Remarks or on a separate sheet)
4.				Problematic Hydrophytic Vegetation ¹ (Explain)
5.				¹ Indianters of hydric soil and watland hydrology must
6.				be present, unless disturbed or problematic.
7.				Definitions of Vegetation Strata:
8.				Tree Weedy plants 3 in (7.6 cm) or more in
9.				diameter at breast height (DBH), regardless of height.
10				Sanling/shrub – Woody plants less than 3 in DBH
11				and greater than or equal to 3.28 ft (1 m) tall.
12				Herb – All herbaceous (non-woody) plants, regardless
	40	=Total Cover		of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size: 30)			Woody vines – All woody vines greater than 3 28 ft in
1				height.
2.				
3.				Hydrophytic Vegetation
4				Present? Yes X No
7.				
T		=Total Cover		

Profile D	escription: (Describe	to the d	epth needed to docu	ment th	e indicat	or or con	firm the absence o	of indicato	ors.)	
Depth	Matrix		Redo	x Feature	es1	. 2				
(inches)	Color (moist)	%	Color (moist)	%	Type '	Loc	l exture		Remarks	
0-11	10YR 5/2	90	10YR 5/6	10	С	M	Loamy/Clayey	Promi	nent redox conc	entrations
11-18	10YR 3/2	85	10YR 5/8	20	С	Μ	Loamy/Clayey	Promi	nent redox conc	entrations
							·			
¹ Type: C	=Concentration, D=Dep	oletion, R	M=Reduced Matrix, C	S=Cove	red or Coa	ated Sand	Grains. ² Loc	ation: PL=	Pore Lining, M	=Matrix.
Hydric So	oil Indicators:		Dolynalyo Poloy	, Surfoor		D D	Indicators for	r Problem	atic Hydric Soi	IS":
Histo	c Epipedon (A2)		MI RA 149B)	Junace	: (30) (L R	к к ,	2 cm Muc	irie Redox	(A16) (I RR K	L.R)
Black	k Histic (A3)		Thin Dark Surfac	ce (S9) (LRR R, N	ILRA 149	B) 5 cm Muc	ky Peat or	r Peat (S3) (LR	– ,, R K, L, R)
Hydro	ogen Sulfide (A4)		High Chroma Sa	ands (S1	1) (LRR F	K, L)	Polyvalue	Below Su	Inface (S8) (LRF	R K, L)
Strat	ified Layers (A5)		Loamy Mucky M	lineral (F	1) (LRR I	(, L)	Thin Dark	Surface (S9) (LRR K, L)	
Deple	eted Below Dark Surfac	ce (A11)	Loamy Gleyed N	/latrix (F2	2)		Iron-Mang	ganese Ma	asses (F12) (LR	R K, L, R)
Thick	Cork Surface (A12)		x Depleted Matrix	(F3)			Piedmont	Floodplai	n Soils (F19) (M	ILRA 149B)
Sand	ly Mucky Mineral (S1)		Redox Dark Sur	face (F6))		Mesic Sp	odic (TA6)	(MLRA 144A, 1	145, 149B)
Sand	by Gleyed Matrix (S4)		Depleted Dark S	Surface (F7)		Red Pare	nt Materia	I (F21) Surface (TE12)	
Sano	ned Matrix (S6)		Marl (F10) (I RR				Other (Ex	nlain in Re	Surface (TFTZ)	
Oark	Surface (S7)			. I X , ⊑)					marks	
³ Indicator	s of hydrophytic vegeta	tion and	wetland hydrology mu	st be pre	esent, unle	ess distur	bed or problematic.			
Restrictiv	ve Layer (if observed)									
Depth ((inches):						Hydric Soil Pre	sont?	Voc X	No
Pomarka								Sent :		
Chroma o	of 2 with mottles @ 12 i	nches.								
Data form	n is revised from Northo	entral an	d Northeast Regional	Supplem	nent Versi	on 2.0 to	reflect the NRCS Fi	eld Indicat	tors of Hydric So	oils version 7.0
March 20	13 Errata. (http://soils.u	usda.gov/	'use/hydric)							

Project/Site: Nash Road Landfill	City/County: Wheatfield/Niagara Co	ounty Samp	ling Date: April 23	, 2014
Applicant/Owner: Glenn Springs Holdings, Inc.		State: NY	Sampling Point: [DP-103
Investigator(s): Christopher S. Andes and Leah Pabst - CRA	Section, Township, Range:			
Landform (hillside, terrace, etc.): Terrace	Local relief (concave, convex, none):	concave	Slope (%):	0-2
Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 1118472	Long: 1075782		Datum: NAD	83
Soil Map Unit Name: Raynham silt loam, 0 to 2 percent slopes (Ra	A)	NWI classification:	PFO1Bds	
Are climatic / hydrologic conditions on the site typical for this time c	of year? Yes <u>X</u> No (If	no, explain in Rema	arks.)	
Are Vegetation, Soil, or Hydrologysignific	antly disturbed? Are "Normal Circum	stances" present?	Yes X No	»
Are Vegetation, Soil, or Hydrologynatural	ly problematic? (If needed, explain a	any answers in Rem	arks.)	

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No Yes X No	Is the Sampled Area within a Wetland? If yes, optional Wetland S	Yes X No	-
Remarks: (Explain alternative proced Presence of the three required wetland	ures here or in a separate report d criteria. Data point is located w	:.) vithin a former landfill.		
HYDROLOGY				
Wetland Hydrology Indicators: Primary Indicators (minimum of one is Surface Water (A1) X High Water Table (A2) X Saturation (A3) X Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) X Inundation Visible on Aerial Imag Sparsely Vegetated Concave Sur	; required; check all that apply) X Water-Stained I Aquatic Fauna (Marl Deposits (I Marl Deposits (I Hydrogen Sulfic Oxidized Rhizos Presence of Re Recent Iron Red Thin Muck Surfice ery (B7) Other (Explain i fface (B8) Hydrogen Sulfice	Leaves (B9) (B13) B15) de Odor (C1) spheres on Living Roots (C3) duced Iron (C4) duction in Tilled Soils (C6) ace (C7) n Remarks)	Secondary Indicators (minimu Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table Crayfish Burrows (C8) X Saturation Visible on Aeri Stunted or Stressed Plan X Geomorphic Position (D2 Shallow Aquitard (D3) Microtopographic Relief (X FAC-Neutral Test (D5)	(C2) ial Imagery (C9) ts (D1)) D4)
Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes capillary fringe) Describe Recorded Data (stream gauge)	No X Depth (inches X No Depth (inches X No Depth (inches ge, monitoring well, aerial photos): <u>12</u>): <u>Surface</u> Wetland Hy s, previous inspections), if avai	Irology Present? Yes_ able:	<u>X</u> No
Remarks: Presence of Wetland Indicators of Hyd	drology (primary and secondary)	and other field observations (vater table and saturation).	

Tree Stratum (Plot size: 20)	Absolute	Dominant	Indicator	Deminanaa Tast warkabaati
	% Cover	<u>Species</u>		Dominance rest worksheet.
	00			Number of Dominant Species
2. Populus deltoides	20	Yes	FAC	That Are OBL, FACW, or FAC:4 (A)
3				Total Number of Dominant
4				Species Across All Strata: <u>6</u> (B)
5				Percent of Dominant Species
6		·		That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)
7		·		Prevalence Index worksheet:
	80	=Total Cover		Total % Cover of:Multiply by:
Sapling/Shrub Stratum (Plot size: 15)				OBL species x 1 =
1. Lindera benzoin	25	Yes	FACW	FACW species 105 x 2 = 210
2. Cornus amomum	20	Yes	FACW	FAC species x 3 =60
3. Prunus serotina	15	Yes	FACU	FACU species 20 x 4 = 80
4				UPL species x 5 = 0
5				Column Totals: 145 (A) 350 (B)
6				Prevalence Index = B/A = 2.41
7				Hydrophytic Vegetation Indicators:
	60	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5)		-		X 2 - Dominance Test is >50%
1. Fragaria virginiana	5	Yes	FACU	X 3 - Prevalence Index is $\leq 3.0^1$
2.				4 - Morphological Adaptations ¹ (Provide supporting
3.				data in Remarks or on a separate sheet)
4.				Problematic Hydrophytic Vegetation ¹ (Explain)
5				¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
7				Definitions of Vegetation Strata:
8				Tree – Woody plants 3 in (7.6 cm) or more in
9				diameter at breast height (DBH), regardless of height.
10				Sapling/shrub – Woody plants less than 3 in. DBH
11				and greater than or equal to 3.28 ft (1 m) tall.
12				Herb – All herbaceous (non-woody) plants, regardless
	5	=Total Cover		of size, and woody plants less than 3.28 ft tall.
<u>Woody Vine Stratum</u> (Plot size: <u>30</u>)				Woody vines – All woody vines greater than 3.28 ft in
1				height.
2				the description of the
3				Hydrophytic Vegetation
4				Present? Yes X No
		=Total Cover		
Remarks: (Include photo numbers here or on a sepa Dominance of wetland vegetation.	rate sheet.)			

SUIL

Profile De	escription: (Describe	to the d	epth needed to docu	ment the	e indicat	or or con	firm the absence o	of indicato	ors.)	
Depth	Matrix		Redo	x Feature	es	<u>_</u>				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-10	10YR 3/1	95	7.5YR 5/8	5	С	Μ	Loamy/Clayey	Promi	nent redox conc	entrations
10-18	10YR 2/2	50	10YR 6/8	20	С	Μ	Loamy/Clayey	Promi	nent redox conc	entrations
	5Y 3/2	30								
1 T							2		Dens Listers M	Mateix
Type: C=	Concentration, D=Depoint of the second se	Dietion, R	M=Reduced Matrix, C	S=Cover	ed or Coa	ated Sand	I Grains. Loc	r Problem	atic Hvdric Soi	=Matrix. ils ³ :
Histos	sol (A1)		Polyvalue Below	/ Surface	(S8) (LR	R R,	2 cm Muo	ck (A10) (L	RR K, L, MLRA	A 149B)
Histic	Epipedon (A2)		MLRA 149B)				Coast Pra	airie Redo	x (A16) (LRR K ,	L, R)
Black	Histic (A3)		Thin Dark Surface	Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L,						R K, L, R)
Hydro	ogen Sulfide (A4)		High Chroma Sa	ands (S1 ⁻	1) (LRR Þ	K, L)	Polyvalue	e Below Su	urface (S8) (LRF	R K, L)
Stratif	fied Layers (A5)		Loamy Mucky M	lineral (F	1) (LRR I	K, L)	Thin Dark	s Surface ((S9) (LRR K, L)	
Deple	eted Below Dark Surface	e (A11)	Loamy Gleyed N	/latrix (F2	2)		Iron-Manganese Masses (F12) (LRR K, L, R)			
Thick	Dark Surface (A12)		x Depleted Matrix	Depleted Matrix (F3) Piedmont Floodplain Soils (F19) (MLR/						ILRA 149B)
Sandy	y Mucky Mineral (S1)		X Redox Dark Sur			Mesic Sp	odic (TA6)) (MLRA 144A, [,]	145, 149B)	
Sandy	y Gleyed Matrix (S4)		Depleted Dark S	-7)		Red Parent Material (F21)				
Sandy	y Redox (S5)		Redox Depressi			Very Shallow Dark Surface (TF12)				
Stripp	ed Matrix (S6)		Marl (F10) (LRR	K, L)			Other (Ex	plain in Re	emarks)	
Dark	Surface (S7)		_							
³ Indicators	s of hydrophytic vegeta	tion and	wetland hydrology mu	st be pre	sent, unle	ess disturl	bed or problematic.			
Restrictiv	e Layer (if observed)			•			·			
Type:										
Depth (i	nches):						Hydric Soil Pre	sent?	Yes X	No
Remarks:	(0									
Data form	is rovised from North	ncnes.	d Northoast Pagional	Supplom	ont Varci	on 2 0 to	roflact the NPCS E	iold Indicat	tore of Hydric S	oile version 7.0
March 201	13 Frrata (http://soils.	isda dov/	use/hvdric)	Supplem		011 2.0 10				
		.euaiger,	acompanoj							

Project/Site: Nash Road Landfill	City/County: Wheatfield/Niagara C	ounty Samp	ling Date: April 2	3, 2014
Applicant/Owner: Glenn Springs Holdings, Inc.		State: NY	Sampling Point:	DP-104
Investigator(s): Christopher S. Andes and Leah Pabst - CRA	Section, Township, Range:			
Landform (hillside, terrace, etc.): Terrace	Local relief (concave, convex, none):	concave	Slope (%):	0-2
Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 1118194	Long: 1075781		Datum: NAI	D 83
Soil Map Unit Name: Raynham silt loam, 0 to 2 percent slopes (Ra	A)	NWI classification:	PFO1Bds	
Are climatic / hydrologic conditions on the site typical for this time c	of year? Yes <u>X</u> No (It	no, explain in Rema	arks.)	
Are Vegetation, Soil, or Hydrologysignific	antly disturbed? Are "Normal Circum	stances" present?	Yes X N	lo
Are Vegetation, Soil, or Hydrologynatural	ly problematic? (If needed, explain a	any answers in Rem	arks.)	

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators (minimum of one is required; check all that apply) Surface Vater (A1) X Water-Stained Leaves (B9) Surface Soil Cracks (B6) Surface Water (A1) X Water-Stained Leaves (B9) Drainage Patterns (B10) Surface Soil Cracks (B6) X Saturation (A3) Marl Deposits (B15) Dry-Season Water Table (C2) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) X Geomorphic Positin (D2) Inon Deposits (B5) Thin Muck Surface (C7) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Microtopographic Relief (D4) Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) FAC-Neutral Test (D5) Field Observations: Yes No Depth (inches): 12 Saturation Present? Yes No Depth (inches): 12 Water Table Present? Yes No Depth (inches): 12 Saturation Present?
Wetland Hydrology Indicators: Secondary Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) X Water-Stained Leaves (B9) Surface Soil Cracks (B6) Surface Water (A1) X Water-Stained Leaves (B9) Drainage Patterns (B10) High Water Table (A2) Aquatic Fauna (B13) X Moss Trim Lines (B16) X Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) X Geomorphic Position (D2) Inon Deposits (B5) Thin Muck Surface (C7) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Microtopographic Relief (D4) Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) FAC-Neutral Test (D5) Field Observations: Ves No Depth (inches): 12 Saturation Present? Yes No Depth (inches): 12 Saturation Present? Yes </th
Primary Indicators (minimum of one is required; check all that apply)
Surface Water (A1) X Water-Stained Leaves (B9) Drainage Patterns (B10) High Water Table (A2) Aquatic Fauna (B13) X Moss Trim Lines (B16) X Saturation (A3) Marl Deposits (B15) Dry-Season Water Table (C2) X Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B3) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) X Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Microtopographic Relief (D4) Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No Depth (inches): 12 Saturation Present? Yes No Depth (inches): Surface Wetland Hydrology Present? Yes X No Cincludes capillary fringe) Depth (inches): Surface <t< td=""></t<>
High Water Table (A2) Aquatic Fauna (B13) X Moss Trim Lines (B16) X Saturation (A3) Marl Deposits (B15) Dry-Season Water Table (C2) X Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) X Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Microtopographic Relief (D4) Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No Depth (inches): 12 Water Table Present? Yes No Depth (inches): 12 Saturation Present? Yes No Depth (inches): 12 Saturation Present? Yes No Depth (inches): 12 Saturation Present? Yes No Depth (inches): 12 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Presence of Wetland Indicators of Hydrology (primary a
X Water Marks (B1)
A Water Marks (b1)
Optime Deposits (D2)
Algal Mat or Crust (B4)
Iron Deposits (B5) Thin Muck Surface (C7) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Microtopographic Relief (D4) Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No X Depth (inches): 12 Water Table Present? Yes No X Depth (inches): 12 Wetland Hydrology Present? Yes X No Saturation Present? Yes X Depth (inches): Surface Wetland Hydrology Present? Yes X No Deptrive (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Presence of Wetland Indicators of Hydrology (primary and secondary) and other field observations (water table and saturation). Presence of Wetland Indicators of Hydrology (primary and secondary) and other field observations (water table and saturation).
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Microtopographic Relief (D4) Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No X Depth (inches): 12 Water Table Present? Yes No X Depth (inches): 12 Wetland Hydrology Present? Yes X No Saturation Present? Yes X No Depth (inches): Surface Wetland Hydrology Present? Yes X No (includes capillary fringe) Depth (inches): Surface Wetland Hydrology Present? Yes X No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Presence of Wetland Indicators of Hydrology (primary and secondary) and other field observations (water table and saturation).
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No X Depth (inches): 12 Water Table Present? Yes No X Depth (inches): 12 Saturation Present? Yes X No Depth (inches): Surface (includes capillary fringe) Wetland Hydrology Present? Yes X No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Presence of Wetland Indicators of Hydrology (primary and secondary) and other field observations (water table and saturation).
Field Observations: Surface Water Present? Yes No X Depth (inches): 12 Water Table Present? Yes No X Depth (inches): 12 Saturation Present? Yes X No Depth (inches): Surface Vincludes capillary fringe) Uncludes capillary fringe) Wetland Hydrology Present? Yes X No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Presence of Wetland Indicators of Hydrology (primary and secondary) and other field observations (water table and saturation).
Surface Water Present? Yes No X Depth (inches): 12 Water Table Present? Yes X Depth (inches): 12 Saturation Present? Yes X No Depth (inches): 12 Saturation Present? Yes X No Depth (inches): Surface Wetland Hydrology Present? Yes X No (includes capillary fringe) Depth (inches): Surface Wetland Hydrology Present? Yes X No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Presence of Wetland Indicators of Hydrology (primary and secondary) and other field observations (water table and saturation).
Water Table Present? Yes No X Depth (inches): 12 Saturation Present? Yes X No Depth (inches): Surface Wetland Hydrology Present? Yes X No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Wetland Hydrology Present? Yes X No Remarks: Presence of Wetland Indicators of Hydrology (primary and secondary) and other field observations (water table and saturation).
Saturation Present? Yes X No Depth (inches): Surface Wetland Hydrology Present? Yes X No (includes capillary fringe) Depth (inches): Surface Wetland Hydrology Present? Yes X No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Remarks: Presence of Wetland Indicators of Hydrology (primary and secondary) and other field observations (water table and saturation). Remarks:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Presence of Wetland Indicators of Hydrology (primary and secondary) and other field observations (water table and saturation).
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Presence of Wetland Indicators of Hydrology (primary and secondary) and other field observations (water table and saturation).
Remarks: Presence of Wetland Indicators of Hydrology (primary and secondary) and other field observations (water table and saturation).
Remarks: Presence of Wetland Indicators of Hydrology (primary and secondary) and other field observations (water table and saturation).
Remarks: Presence of Wetland Indicators of Hydrology (primary and secondary) and other field observations (water table and saturation).

	Absolute	Dominant	Indicator	Deminence Test werkehest
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	Species?	Status	Dominance Test worksneet:
1. Populus deltoides	50	Yes	FAC	Number of Dominant Species
2. Prunus serotina	20	Yes	FACU	That Are OBL, FACW, or FAC:(A)
3.		·		Total Number of Dominant
4				Species Across All Strata:3(B)
5				Percent of Dominant Species
6				That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)
7				Prevalence Index worksheet:
	70	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15)				OBL species 0 x 1 = 0
1. Lindera benzoin	35	Yes	FACW	FACW species 35 x 2 = 70
2.				FAC species 50 x 3 = 150
3.				FACU species 20 x 4 = 80
4.				UPL species $0 \times 5 = 0$
5.		·		Column Totals: 105 (A) 300 (B)
6				$\frac{1}{2} = \frac{1}{2} = \frac{1}$
7		·		Hydrophytic Vegetation Indicators:
··	25	-Total Covor		1 Papid Tast for Hydrophytic Vagetation
Horb Stratum (Diat aiza: 5)				Y 2 Dominance Test is > 50%
1		·		\underline{X} 3 - Prevalence index is ≤ 3.0
2		·		4 - Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)
3				
4				Problematic Hydrophytic Vegetation (Explain)
5				¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
7				Definitions of Vegetation Strata:
8				Tree – Woody plants 3 in. (7.6 cm) or more in
9				diameter at breast height (DBH), regardless of height.
10				Sanling/shrub – Woody plants less than 3 in DBH
11.				and greater than or equal to 3.28 ft (1 m) tall.
12.				Herb All borbassous (non woody) planta, regardlaga
		=Total Cover		of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size: 30)	1			We advertise of the state of th
, 1				woody vines – All woody vines greater than 3.28 ft in height.
2				
3		·		Hydrophytic
3				Vegetation
·		-Total Cover		
Descertes (techological states)		= i otal Cover		1
Dominance of wetland vegetation.	rate sneet.)			

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Profile D	escription: (Describe	to the d	epth needed to docu	ment the	e indicat	or or con	firm the absence o	of indicato	rs.)	
Depth	Matrix		Redo	x Feature	es					
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc ²	Texture		Remarks	
0-8	10YR 2/2	95	7.5YR 5/8	5	С	М	Loamy/Clayey	Promin	ent redox cor	centrations
8-18	10YR 2/2	50	10YR 6/8	15			Loamy/Clayey			
	10YR 4/2	35								
							<u> </u>			
¹ Type: C	=Concentration, D=Dep	letion, R	M=Reduced Matrix, C	S=Cover	ed or Coa	ated Sand	d Grains. ² Loc	ation: PL=	Pore Lining, I	M=Matrix.
Hydric Se	oil Indicators:						Indicators for	r Problema	atic Hydric S	oils ³ :
Histo	osol (A1)		Polyvalue Below	/ Surface	(S8) (LR	RR,	2 cm Muc	:k (A10) (L l	RR K, L, MLF	RA 149B)
Histic	c Epipedon (A2)		MLRA 149B)				Coast Pra	airie Redox	(A16) (LRR	K, L, R)
Black	k Histic (A3)		Thin Dark Surfa	ce (S9) (LRR R, N	ILRA 149	B)5 cm Muc	ky Peat or	Peat (S3) (LF	RR K, L, R)
Hydro	ogen Sulfide (A4)		High Chroma Sa	ands (S1	1) (LRR k	K, L)	Polyvalue	Below Su	face (S8) (LF	R K, L)
Strat	ified Layers (A5)		Loamy Mucky N	lineral (F	1) (LRR I	(, L)	Thin Dark	Surface (S	69) (LRR K, L	.)
Deple	eted Below Dark Surfac	e (A11)	Loamy Gleyed N	Aatrix (F2	2)		Iron-Mang	ganese Ma	sses (F12) (L	RR K, L, R)
Thick	Coark Surface (A12)	. ,	x Depleted Matrix	(F3)	,		Piedmont	- Floodplain	Soils (F19) (MLRA 149B)
Sand	lv Muckv Mineral (S1)		X Redox Dark Sur	face (F6)			Mesic Sp	odic (TA6)	(MLRA 144A	. 145. 149B)
Sand	ly Gleved Matrix (S4)		Depleted Dark S	Surface (I	=7)		Red Pare	nt Material	(F21)	, , ,
Sand	ly Redox (S5)		Bedox Depressi	ons (F8)	.,		Very Sha	llow Dark S	(FE12) Surface (TE12))
Strip	ned Matrix (S6)		Marl (E10) (I PP				Other (Ex	nlain in Ro	marke))
Outp	Surface (SZ)			. I ∖ , ⊑)					marks)	
	Surface (S7)									
³ Indicator	s of hydrophytic vegeta	tion and	wetland hydrology mu	st be pre	sent, unle	ess distur	bed or problematic.			
Restrictiv	ve Layer (if observed)	•								
Dopth ((inches);						Undria Sail Bra	cont?	Vec V	No
Depin ((inches):						Hydric Soli Pre	sent?	res <u>^</u>	
Remarks:	: xf 2 with mottles @ 12 i	nahaa								
Doto form	bic roviced from North	nontral ar	d Northoast Pagional	Supplar	ont Vorci	an 20 to	roflact the NPCS E	old Indicat	ore of Hydric (Soils version 7.0
March 20	13 Errata (http://soile.u		(use/bydric)	Supplet		011 2.0 10	Tellect the NRC3 FI			
Maron 20		iouu.gov	use/Hyuno/							

Project/Site: Nash Road Landfill	City/County: Wheatfield/Niagara Co	ounty Sampl	Sampling Date: April 2	
Applicant/Owner: Glenn Springs Holdings, Inc.		State: NY	Sampling Point:	DP-105
Investigator(s): Christopher S. Andes and Leah Pabst - CRA	Section, Township, Range:			
Landform (hillside, terrace, etc.): Terrace	Local relief (concave, convex, none):	concave	Slope (%):	0-2
Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 1118241	Long: 1075731		Datum: NAI	0 83
Soil Map Unit Name: Raynham silt loam, 0 to 2 percent slopes (Ra	A)	NWI classification:	PFO1Bds	
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes <u>X</u> No (If	no, explain in Rema	arks.)	
Are Vegetation, Soil, or Hydrologysignific	antly disturbed? Are "Normal Circum	stances" present?	Yes X N	lo <u> </u>
Are Vegetation, Soil, or Hydrologynatural	ly problematic? (If needed, explain a	any answers in Rem	arks.)	

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes X M Yes X M	No Is the Sam No within a W	ipled Area /etland?	Yes X	No
Remarks: (Explain alternative proced Presence of the three required wetlar	Jures here or in a sep nd criteria. Data point	parate report.) t is located within a former la	andfill.		
HYDROLOGY					
Wetland Hydrology Indicators: Primary Indicators (minimum of one i Surface Water (A1) High Water Table (A2) X Saturation (A3) X Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Sparsely Vegetated Concave Su	<u>s required; check all</u> <u>X</u> Wa Aqu Mar Mar Oxiv Oxiv Pre Rec Thiu gery (B7)Oth	that apply) ater-Stained Leaves (B9) uatic Fauna (B13) rl Deposits (B15) drogen Sulfide Odor (C1) idized Rhizospheres on Livir esence of Reduced Iron (C4) cent Iron Reduction in Tilled in Muck Surface (C7) her (Explain in Remarks)		dary Indicato urface Soil C rainage Patte oss Trim Line ry-Season W rayfish Burro aturation Visi cunted or Stre eomorphic P hallow Aquita icrotopograp AC-Neutral T	brs (minimum of two required) stracks (B6) erns (B10) es (B16) //ater Table (C2) ws (C8) ible on Aerial Imagery (C9) essed Plants (D1) rosition (D2) ard (D3) hic Relief (D4) rest (D5)
Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes capillary fringe) Describe Recorded Data (stream gau	No X Do No X Do X No Do Jge, monitoring well, a	epth (inches): epth (inches):12 epth (inches):Surface aerial photos, previous insp	Wetland Hydrology ections), if available:	y Present?	Yes <u>X</u> No
Remarks: Presence of Wetland Indicators of Hy	/drology (primary and	d secondary) and other field	observations (surface	water, water	table and saturation).

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Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species2	Indicator	Dominance Test worksheet:
1 Populus dataidas	-70 COVER 65	Ves	FAC	
	10	No		Number of Dominant Species
2. <u>Fraxinus perinsylvanica</u>	10		FAGVV	That Ale ODL, FACW, OF FAC. 3 (A)
3				Total Number of Dominant
4				Species Across All Strata: <u>3</u> (B)
5				Percent of Dominant Species
6				That Are OBL, FACW, or FAC: 100.0% (A/B)
7				Prevalence Index worksheet:
	75	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15)				OBL species x 1 =
1. Cornus amomum	35	Yes	FACW	FACW species 75 x 2 = 150
2. Lindera benzoin	30	Yes	FACW	FAC species <u>65</u> x 3 = <u>195</u>
3				FACU species 0 x 4 = 0
4.		• <u> </u>		UPL species 0 x 5 = 0
5				Column Totals: 140 (A) 345 (B)
6.		<u> </u>		Prevalence Index = B/A = 2.46
7		<u> </u>		Hydrophytic Vegetation Indicators:
	65	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5)				X 2 - Dominance Test is >50%
1				X 3 - Prevalence Index is $\leq 3.0^1$
2.				4 - Morphological Adaptations ¹ (Provide supporting
3.				data in Remarks or on a separate sheet)
4.				Problematic Hydrophytic Vegetation ¹ (Explain)
5				¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
7				Definitions of Vegetation Strata:
8 9				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
10.				Continuate Weady plants loss than 3 in DRH
11.				and greater than or equal to 3.28 ft (1 m) tall.
12		·		Herb – All herbaceous (non-woody) plants, regardless
		=Total Cover		of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size: 30)				Woody vines – All woody vines greater than 3.28 ft in
1				height.
2				Hydrophytic
3				Vegetation
4				Present? Yes X No
		=Total Cover		
Remarks: (Include photo numbers here or on a sepa Dominance of wetland vegetation.	rate sheet.)			

SOIL	
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Profile D	escription: (Describe	to the d	epth needed to docu	ment the	e indicat	or or con	firm the absence of	of indicators	.)	
Depth	Matrix		Redo	x Feature	es - 1	. 2	-		_	
(inches)	Color (moist)	%	Color (moist)	%	Туре	Loc	Texture		Remarks	
0-10	10YR 2/2	95	7.5YR 5/8	5	С	Μ	Loamy/Clayey	Prominer	nt redox cond	centrations
10-18	10YR 4/2	70	10YR 6/8	10	С	М	Loamy/Clayey			
	2.5YR 3/4	20	,							
			,							
							·			
			,							
1										
Type: C:	=Concentration, D=Dep	letion, R	M=Reduced Matrix, C	S=Cover	ed or Co	ated Sand	d Grains. ² Loc	ation: PL=Po r Problemati	ore Lining, M	=Matrix. ile ³ ·
Histo	sol (A1)		Polyvalue Below	/ Surface	(S8) (LR	RR.	2 cm Mu	ck (A10) (LRF	R K. L. MLR	A 149B)
Histic	c Epipedon (A2)		MLRA 149B)		(,	Coast Pra	airie Redox (A	16) (LRR K	, L, R)
Black	Histic (A3)		Thin Dark Surfac	ce (S9) (I	LRR R, N	ILRA 149	B) 5 cm Muc	ky Peat or P	eat (S3) (LR	R K, L, R)
Hydro	ogen Sulfide (A4)		High Chroma Sa	ands (S1	1) (LRR /	(, L)	Polyvalue	e Below Surfa	ice (S8) (LRI	R K, L)
Strati	fied Layers (A5)		Loamy Mucky M	lineral (F	1) (LRR I	(, L)	Thin Dark	surface (S9) (LRR K, L)	. ,
X Deple	eted Below Dark Surfac	e (A11)	Loamy Gleved N	Aatrix (F2	2)	, ,	Iron-Manganese Masses (F12) (LRR K. L. R)			
Thick	Dark Surface (A12)		x Depleted Matrix	(F3)	,		Piedmont Floodplain Soils (F19) (MLRA 149B)			
Sand	y Mucky Mineral (S1)		X Redox Dark Sur	face (F6)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			
Sand	v Gleved Matrix (S4)		Depleted Dark Surface (F7)				Red Parent Material (F21)			
Sand	v Redox (S5)		Redox Depressi	ons (F8)	.,		Very Shallow Dark Surface (TF12)			
Strip	ped Matrix (S6)		Marl (F10) (I RR	K I)			Other (Explain in Remarks)			
Dark	Surface (S7)			···, _ /					unto)	
³ Indicator	s of hydrophytic vegeta	tion and	wetland hydrology mu	st be pre	sent, unl	ess distur	bed or problematic.			
Restrictiv	ve Layer (if observed):									
Depth (inches):						Hydric Soil Pre	sont?	Ves X	No
Deptil (Hyunc Son Fre	Sent		
Chroma c	of 2 with mottles @ 12 ir	nches								
Data form	is revised from Northc	entral ar	d Northeast Regional	Supplem	ent Vers	on 2.0 to	reflect the NRCS F	ield Indicator	s of Hydric S	oils version 7.0
March 20	13 Errata. (http://soils.u	sda.gov/	/use/hydric)							
		•	- /							

Project/Site: Nash Road Landfill	City/County: Wheatfield/Niagara Co	ounty Sampl	ing Date: April 2	3, 2014
Applicant/Owner: Glenn Springs Holdings, Inc.		State: NY	Sampling Point:	DP-106
Investigator(s): Christopher S. Andes and Leah Pabst - CRA	Section, Township, Range:			
Landform (hillside, terrace, etc.): Terrace	Local relief (concave, convex, none):	concave	Slope (%):	0-2
Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 1118197	Long: 1075678		Datum: NAI	D 83
Soil Map Unit Name: Raynham silt loam, 0 to 2 percent slopes (Ra	A)	NWI classification:	PFO1Bds	
Are climatic / hydrologic conditions on the site typical for this time c	of year? Yes <u>X</u> No (If	no, explain in Rema	arks.)	
Are Vegetation, Soil, or Hydrologysignific	antly disturbed? Are "Normal Circum	stances" present?	Yes X N	lo
Are Vegetation, Soil, or Hydrologynatural	ly problematic? (If needed, explain a	any answers in Rem	arks.)	

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No Yes X No	Is the Sampled Area within a Wetland? If yes, optional Wetland Site ID	Yes X No
Remarks: (Explain alternative procect Presence of the three required wetlar	Jures here or in a separate repornd criteria. Data point is located v	.) rithin a former landfill.	
HYDROLOGY			
Wetland Hydrology Indicators: Primary Indicators (minimum of one is Surface Water (A1) High Water Table (A2) X Saturation (A3) X Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Sparsely Vegetated Concave Su	s required; check all that apply) X Water-Stained Aquatic Fauna Marl Deposits (Hydrogen Sulfid Oxidized Rhizo Presence of Re Recent Iron Re Thin Muck Surf gery (B7) Other (Explain Irface (B8)	Sec Leaves (B9) B13) X B15) le Odor (C1) spheres on Living Roots (C3) duced Iron (C4) duction in Tilled Soils (C6) X ace (C7) n Remarks)	ondary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes capillary fringe) Describe Recorded Data (stream gau	No X Depth (inches No X Depth (inches X No Depth (inches ge, monitoring well, aerial photo):): Wetland Hydrold s, previous inspections), if available	ogy Present? Yes <u>X</u> No
Remarks: Presence of Wetland Indicators of Hy	/drology (primary and secondary)	and other field observations (surfac	ce water, water table and saturation).

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Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:		
1. Populus deltoides	60	Yes	FAC			
2.				Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)		
3 4		·		Total Number of Dominant Species Across All Strata: <u>2</u> (B)		
5		·		Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)		
7.				Prevalence Index worksheet:		
	60	=Total Cover		Total % Cover of: Multiply by:		
Sapling/Shrub Stratum (Plot size: 15)				OBL species 0 x 1 = 0		
1. Cornus amomum	40	Yes	FACW	FACW species 40 x 2 = 80		
2.		•		FAC species 60 x 3 = 180		
3.				FACU species $0 x 4 = 0$		
4				UPI species $0 \times 5 = 0$		
5				Column Totals: 100 (A) 260 (B)		
6				$\frac{1}{2} \frac{1}{2} \frac{1}$		
7				Hudrophytic Vocatation Indicators:		
/		-Total Cover		A Panid Tast for Hydrophytic Vegetation		
Llash Stratum (Distaire) 5	40			1 - Rapid Test for Hydrophytic Vegetation		
Herd Stratum (Piot size)				$\frac{X}{2}$ - Dominance results >50%		
1				$\frac{1}{2} = \frac{1}{2} $		
2. 3.				4 - Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)		
4.		·		Problematic Hydrophytic Vegetation ¹ (Explain)		
5 6				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
7.				Definitions of Vegetation Strata:		
8.	-					
9.		·		Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
10				Sapling/shrub – Woody plants less than 3 in. DBH		
11		<u> </u>		and greater than or equal to 3.28 ft (1 m) tall.		
12		.		Herb – All herbaceous (non-woody) plants, regardless		
		=Total Cover		of size, and woody plants less than 3.28 ft tall.		
Woody Vine Stratum (Plot size: 30)		ļ		Woody vines $-$ All woody vines greater than 3.28 ft in		
1.				height.		
2.						
3.		•		Hydrophytic		
۵ ۵				Vegetation Present? Yes X No		
T		-Total Cover				
Demostra: (Include photo numbero horo er en e cono				<u> </u>		
Dominance of wetland vegetation.	Idle Sheet.					

SOIL	_
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Profile De	escription: (Describe	to the d	epth needed to docu	iment th	e indicate	or or con	firm the absence of indi	cators.)	
Depth	Matrix		Redo	x Feature	es1		_		
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc ²	Texture	Remarks	
0-4	10YR 3/2	100					Loamy/Clayey		
4-14	10YR 3/2	95	7.5YR 5/8	5	D	M	Loamy/Clayey		
14-18	10YR 6/3	50	7.5YR 5/8	2	D	Μ			
	10YR 4/3	47							
¹ Type: C=	=Concentration, D=De	pletion, R	M=Reduced Matrix, C	S=Cove	red or Coa	ated Sand	d Grains. ² Location:	PL=Pore Lining, M=Matrix.	
Hydric Sc	oil Indicators:						Indicators for Prob	lematic Hydric Soils ³ :	
Histo	sol (A1)		Polyvalue Belov	v Surface	e (S8) (LR	R R,	2 cm Muck (A10	D) (LRR K, L, MLRA 149B)	
Histic	Epipedon (A2)		MLRA 149B)				Coast Prairie Re	edox (A16) (LRR K, L, R)	
Black	Histic (A3)		Thin Dark Surfa	ce (S9) (LRR R, M	ILRA 149	B) 5 cm Mucky Pea	at or Peat (S3) (LRR K, L, R)	
Hydro	ogen Sulfide (A4)		High Chroma Sa	ands (S1	1) (LRR 🖡	(, L)	Polyvalue Belov	v Surface (S8) (LRR K, L)	
Strati	fied Layers (A5)		Loamy Mucky N	lineral (F	1) (LRR 🖌	(, L)	Thin Dark Surfa	ce (S9) (LRR K, L)	
Deple	eted Below Dark Surfa	ce (A11)	Loamy Gleyed M	√atrix (F2	2)		Iron-Manganese Masses (F12) (LRR K, L, R)		
Thick	Dark Surface (A12)		x Depleted Matrix	(F3)			Piedmont Floodplain Soils (F19) (MLRA 149B)		
Sand	y Mucky Mineral (S1)		Redox Dark Sur	face (F6)		Mesic Spodic (TA6) (MLRA 144A, 145, 149B)		
Sand	y Gleyed Matrix (S4)		Depleted Dark S	Surface (F7)		Red Parent Material (F21)		
Sand	y Redox (S5)		Redox Depressi	ons (F8)			Very Shallow Dark Surface (TF12)		
Stripp	oed Matrix (S6)		Marl (F10) (LRR	≀ K, L)			Other (Explain in Remarks)		
Dark	Surface (S7)								
³ Indicators	s of hydrophytic vegeta	ation and	wetland hydrology mu	ust be pre	esent, unle	ess disturl	bed or problematic.		
Restrictiv	ve Layer (if observed)	:							
Type:									
Depth (i	inches):						Hydric Soil Present?	Yes <u>X</u> No	
Remarks:	f Q with mattles @ 10	inches							
Data form	is revised from North	nones.	d Northeast Regional	Supplen	aant Varsi	on 2.0 to	reflect the NRCS Field Inc	dicators of Hydric Soils version 7.0	
March 202	13 Frrata, (http://soils.	usda.gov/	use/hvdric)	Suppleti		011 2.0 10		dicators of flydric cons version 7.0	
		acaa.ge.,	uoo, iiy uiio)						

Project/Site: Nash Road Landfill	City/County: Wheatfield/Niagara Co	ounty Sampl	ing Date: April 2	3, 2014
Applicant/Owner: Glenn Springs Holdings, Inc.		State: NY	Sampling Point:	DP-107
Investigator(s): Christopher S. Andes and Leah Pabst - CRA	Section, Township, Range:			
Landform (hillside, terrace, etc.): Terrace	Local relief (concave, convex, none):	concave	Slope (%):	0-2
Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 1118170	Long: 1075609		Datum: NAI	D 83
Soil Map Unit Name: Raynham silt loam, 0 to 2 percent slopes (Ra	A)	NWI classification:	PFO1Bds	
Are climatic / hydrologic conditions on the site typical for this time c	of year? Yes <u>X</u> No (If	no, explain in Rema	arks.)	
Are Vegetation, Soil, or Hydrologysignific	antly disturbed? Are "Normal Circum	stances" present?	Yes X N	lo
Are Vegetation, Soil, or Hydrologynatural	ly problematic? (If needed, explain a	any answers in Rem	arks.)	

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present	t? Yes_	X No	Is the Sampled Area	v v
Hydric Soil Present?	Yes_		- within a wetland?	
Remarks: (Explain alternative p Presence of the three required	procedures here o wetland criteria. D	r in a separate replata point is locate	port.) ad within a former landfill.	
HYDROLOGY				
Wetland Hydrology Indicators Primary Indicators (minimum of X Surface Water (A1) X High Water Table (A2) X Saturation (A3) X Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeria Sparsely Venetated Conca	il Imagery (B7)	 <u>x</u> Water-Stains Aquatic Faur Marl Deposit Hydrogen Stains Oxidized Rh Presence of Recent Iron Thin Muck S Other (Explage 	y) ed Leaves (B9) na (B13) ts (B15) ulfide Odor (C1) izospheres on Living Roots (C3) Reduced Iron (C4) Reduction in Tilled Soils (C6) surface (C7) tin in Remarks)	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) X Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) X Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) X EAC-Neutral Test (D5)
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (strea	Yes X No Yes X No Yes X No Yes X No m gauge, monitori Image: Monitori	Depth (incl Depth (incl Depth (incl ing well, aerial ph	nes): 0-1 nes): Surface nes): Surface Wetland Hy potos, previous inspections), if ava	ydrology Present? Yes X No
Remarks: Presence of Wetland Indicators	of Hydrology (prir	mary and seconda	ary) and other field observations	(surface water, water table and saturation).

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Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species2	Indicator	Dominance Test worksheet:		
1 Fravinus pennsulvanica	60	Yes	FACW	Dominiance rest worksheet.		
Populus deltoides	30	Yes	FAC	Number of Dominant Species That Are OBL_FACW_or FAC: 4 (A)		
3			1710			
۵				Total Number of Dominant Species Across All Strata: 4 (B)		
4						
6				Percent of Dominant Species That Are OBL_FACW_or FAC: 100.0% (A/B)		
7				Prevalence Index worksheet:		
	90	=Total Cover		Total % Cover of: Multiply by:		
Sapling/Shrub Stratum (Plot size: 15)		-		$\frac{1}{\text{OBL species}} 0 \qquad \text{x1} = 0$		
1. Cornus amomum	25	Yes	FACW	FACW species $100 x^2 = 200$		
2 Lindera benzoin	15	Yes	FACW	FAC species $30 \times 3 = 90$		
3				FACU species $0 \times 4 = 0$		
а		·		$\frac{1100 \text{ species}}{100 \text{ species}} = 0 \qquad x5 = 0$		
5		·		$\begin{array}{c} \text{Olumn Totals:} 130 \qquad (A) \qquad 290 \qquad (B) \end{array}$		
6				$\frac{1}{230} \frac{1}{100} \frac{1}$		
7		·		Hydrophytic Vegetation Indicators:		
/·	40	-Total Cover		A Panid Test for Hydrophytic Vegetation		
Harh Stratum (Plot size: 5)	40			X = 2 - Dominance Test is >50%		
				$\frac{1}{\sqrt{2}}$ 2 · Dominance index is <0.07		
1 2		·		4 - Morphological Adaptations ¹ (Provide supporting		
2				data in Remarks or on a separate sheet)		
3				Problematic Hydrophytic Vegetation ¹ (Explain)		
4						
5 6				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
7				Definitions of Vegetation Strata:		
8				Tree – Woody plants 3 in. (7.6 cm) or more in		
9				diameter at breast height (DBH), regardless of height.		
10				Sapling/shrub – Woody plants less than 3 in. DBH		
11				and greater than or equal to 3.28 ft (1 m) tall.		
12				Herb – All herbaceous (non-woody) plants, regardless		
		=Total Cover		of size, and woody plants less than 3.28 ft tall.		
Woody Vine Stratum (Plot size: 30)				Woody vines – All woody vines greater than 3.28 ft in		
1				height.		
2.						
3				Hydrophytic Vegetation		
4.		•		Present? Yes X No		
		=Total Cover				
Remarks: (Include photo numbers here or on a sepa	rate sheet.)	<u>.</u>		·		
Dominance of wetland vegetation.						

Profile D	Description: (Describe	e to the d	epth needed to docu	iment th	e indicate	or or con	firm the absence o	of indicate	ors.)	
Depth	Matrix	0/	Redo	x Feature	es Trans 1	12	Tantan		Deve	
(inches)	Color (moist)	<u>%</u>		<u>%</u>	Type	Loc	l exture		Remarks	
0-14	10YR 4/2	90	7.5YR 5/8	10	С	M	Loamy/Clayey	Promi	nent redox cond	entrations
14-18	10YR 3/3	75	7.5YR 5/8	10	C	M	Loamy/Clayey			
			10YR 5/8	15	С	М		Promi	nent redox cond	centrations
							<u> </u>			
		nletion R	M-Reduced Matrix C		ed or Cor		d Grains ² Loo	ation: PL	-Pore Lining M	I-Matrix
Hydric S	Soil Indicators:	pietion, r				aleu Sant	Indicators for	r Problem	atic Hydric So	ils ³ :
Histe	osol (A1)		Polyvalue Below	v Surface	e (S8) (LR	R R,	2 cm Muc	k (A10) (L	_RR K, L, MLR	A 149B)
Histi	ic Epipedon (A2)		MLRA 149B)				Coast Pra	airie Redo	x (A16) (LRR K	, L, R)
Blac	k Histic (A3)		Thin Dark Surfa	ce (S9) (LRR R, N	ILRA 149	B) 5 cm Muc	ky Peat o	r Peat (S3) (LR	R K, L, R)
Hyd	rogen Sulfide (A4)		High Chroma Sa	ands (S1	1) (LRR Þ	K, L)	Polyvalue	Below Su	urface (S8) (LRF	ξ Κ, L)
Stra	tified Layers (A5)		Loamy Mucky N	lineral (F	1) (LRR 🖌	K, L)	Thin Dark	Surface ((S9) (LRR K, L)	
Dep	leted Below Dark Surfa	ce (A11)	Loamy Gleyed N	Matrix (F2	2)		Iron-Mang	ganese Ma	asses (F12) (LR	'R K, L, R)
Thic	k Dark Surface (A12)		x Depleted Matrix	(F3)			Piedmont	Floodplai	in Soils (F19) (N	ILRA 149B)
San	dy Mucky Mineral (S1)		Redox Dark Sur	face (F6))		Mesic Sp	odic (TA6)) (MLRA 144A,	145, 149B)
San	dy Gleyed Matrix (S4)		Depleted Dark S	Surface (I	F7)		Red Pare	nt Materia	al (F21)	
San	dy Redox (S5)		Redox Depressi	ons (F8)			Very Shallow Dark Surface (TF12)			
Strip	oped Matrix (S6)		Marl (F10) (LRR	R K, L)			Other (Explain in Remarks)			
Dark	c Surface (S7)									
³ Indicato	rs of hydrophytic veget	ation and	wetland hydrology mu	ist be pre	esent. unle	ess distur	bed or problematic.			
Restrict	ive Layer (if observed):			,					
Туре:										
Depth	(inches):						Hydric Soil Pre	sent?	Yes X	No
Remarks	8:									
Chroma	of 2 with mottles @ 12	inches.		<u> </u>						
Data forr	n is revised from North	central an	d Northeast Regional	Supplem	nent Versi	on 2.0 to	reflect the NRCS Fi	eld Indica	tors of Hydric S	oils version 7.0
March 20	013 Errata. (http://solis.	usda.gov/	use/nydric)							

Project/Site: Nash Road Landfill	City/County: Wheatfield/Niagara C	ounty Samp	ling Date: April 24, 2014
Applicant/Owner: Glenn Springs Holdings, Inc.		State: NY	Sampling Point: DP-108
Investigator(s): Christopher S. Andes and Leah Pabst - CRA	Section, Township, Range:		
Landform (hillside, terrace, etc.): Terrace	Local relief (concave, convex, none):	concave	Slope (%): 0-2
Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 1118117	Long: 1075365	5	Datum: NAD 83
Soil Map Unit Name: Raynham silt loam, 0 to 2 percent slopes (Ray	۹)	NWI classification:	Upland
Are climatic / hydrologic conditions on the site typical for this time o	f year? Yes <u>X</u> No (I	f no, explain in Rema	arks.)
Are Vegetation, Soil, or Hydrologysignification	antly disturbed? Are "Normal Circum	stances" present?	Yes X No
Are Vegetation, Soil, or Hydrologynatural	y problematic? (If needed, explain	any answers in Rem	arks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: (Explain alternative proced Presence of the three required wetlan	Yes X No Yes X No Yes X No ures here or in a separate re d criteria. Data point is locat	Is the Sampled Ar within a Wetland? If yes, optional Wet port.) ed within a former landfill.	rea ? Yes <u>X</u> No :tland Site ID:
HYDROLOGY			
Wetland Hydrology Indicators: Primary Indicators (minimum of one is Surface Water (A1) X High Water Table (A2) X Saturation (A3) X Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imag Sparsely Vegetated Concave Sur	<u>s required; check all that app</u> <u>X</u> Water-Stair Aquatic Fau Marl Depos Hydrogen S Oxidized RI Oxidized RI Presence o Recent Iron Thin Muck S Hery (B7) (B7) (Cher (Expl	ly) ned Leaves (B9) ina (B13) its (B15) ulfide Odor (C1) nizospheres on Living Roots f Reduced Iron (C4) Reduction in Tilled Soils (C Surface (C7) ain in Remarks)	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) X Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) s (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) C6) X Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) X FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes capillary fringe) Describe Recorded Data (stream gauge)	No X Depth (inc X No Depth (inc X No Depth (inc ge, monitoring well, aerial ph	hes): hes):12 hes): _Surface Wetla otos, previous inspections).	and Hydrology Present? Yes X No
Remarks: Presence of Wetland Indicators of Hy	drology (primary and second	ary) and other field observa	ations (water table and saturation).

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. Populus deltoides	60	Yes	FAC	
2.		·		Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
3				Total Number of Dominant
4				Species Across All Strata: <u>3</u> (B)
5				Percent of Dominant Species
6				That Are OBL, FACW, or FAC: 100.0% (A/B)
7				Prevalence Index worksheet:
	60	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15)				OBL species 0 x 1 = 0
1. Lindera benzoin	60	Yes	FACW	FACW species 105 x 2 = 210
2. Cornus amomum	45	Yes	FACW	FAC species 60 x 3 = 180
3. Ligustrum	15	No		FACU species 0 x 4 = 0
4.				UPL species 0 x 5 = 0
5.				Column Totals: 165 (A) 390 (B)
6.		·		Prevalence Index = $B/A = 2.36$
7.				Hydrophytic Vegetation Indicators:
	120	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5)	1	•		X 2 - Dominance Test is >50%
1.				X 3 - Prevalence Index is ≤3.0 ¹
2.				4 - Morphological Adaptations ¹ (Provide supporting
3				data in Remarks of on a separate sheet)
4				Problematic Hydrophytic Vegetation ¹ (Explain)
5				¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
7				Definitions of Vegetation Strata:
8		·		Tree – Woody plants 3 in. (7.6 cm) or more in
9		·		diameter at breast height (DBH), regardless of height.
10		·		Sapling/shrub – Woody plants less than 3 in. DBH
11		·		and greater than or equal to 3.28 ft (1 m) tail.
12		=Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size: 30)				Woody vines – All woody vines greater than 3.28 ft in
1				height.
2				Hydrophytic
3				Vegetation
4				Present? Yes X No
		=Total Cover		
Remarks: (Include photo numbers here or on a sepa	rate sheet.)			
Dominance of wetland vegetation.				

SOIL	_
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Profile D	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix		Redo	x Featur	es1	. 2				
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc ²	Texture		Remarks	
0-18	10YR 4/1	95	10YR 7/8	5	С	М	Loamy/Clayey	Prominent	redox con	centrations
	Concentration D Dar			<u> </u>	rad ar Car	ated Cone		otion, DL Do	ro Lining N	A Motrix
Type: C:	=Concentration, D=Dep		VI=Reduced Matrix, C	5=C0ve		aleu Sanc	Indicators fo	r Problematic		
				(Surface		D D				115 . A 140P
	SOI (AI)			/ Sunace	e (30) (LR	кк,		ck (ATU) (LKK		A 149D)
HISUC	(A2)		WILRA 149B)				D) E om Mu	airie Redox (A	10) (LRR N	, L, K)
				ce (59) (ILKA 149		cky Peal of Pe	al (53) (LR	κ κ, μ, κ)
Hydro	Sigen Sumae (A4)		High Chroma Sa	ands (51 Vie anal / E		(, L)	Polyvalue	e Below Surrac	e (58) (LR	r n, l)
Strati	Tied Layers (A5)	(ineral (F	·1) (LRR P	(, L)		C Surface (S9)	(LRR K, L)	
	eted Below Dark Surfac	ce (A11)	Loamy Gleyed N	/latrix (F2	2)		Iron-Ivian	ganese Masse	S (F12) (LF	$(\mathbf{R} \mathbf{K}, \mathbf{L}, \mathbf{R})$
	Dark Surface (A12)		x Depleted Matrix	(F3)			Pleamon	t Floodplain Sc	DIIS (F19) (N	/ILRA 149B)
Sand	y Mucky Mineral (S1)		Redox Dark Sur	face (F6)		Mesic Sp	odic (1A6) (MI	LRA 144A,	145, 149B)
Sand	y Gleyed Matrix (S4)		Depleted Dark S	Surface (F7)		Red Pare	ent Material (F2	21)	
Sand	y Redox (S5)		Redox Depressi	ons (⊦8)			Very Sha	llow Dark Surf	ace (TF12)	
Stripp	bed Matrix (S6)		Marl (F10) (LRR	κ, L)			Other (E)	kplain in Rema	rks)	
Dark	Surface (S7)									
3										
Indicator	s of hydrophytic vegeta	ation and	wetland hydrology mu	ist be pre	esent, unle	ess distur	bed or problematic.			
Restrictiv	/e Layer (if observed)	:								
Type:										
Depth (inches):						Hydric Soil Pre	esent? Y	′esX_	No
Remarks:										
Chroma o	of 1 with mottles @ 12 i	nches. Au	uger refusal 14 inches	6.						
Data form	is revised from Northo	entral an	d Northeast Regional	Supplen	nent Versi	on 2.0 to	reflect the NRCS F	ield Indicators	of Hydric S	oils version 7.0
March 20	13 Errata. (http://soils.ι	usda.gov/	use/hydric)							

Project/Site: Nash Road Landfill	City/County: Wheatfield/Niagara Co	ounty Sample	Sampling Date: April 24, 2014		
Applicant/Owner: Glenn Springs Holdings, Inc.		State: NY	Sampling Point:	DP-109	
Investigator(s): Christopher S. Andes and Leah Pabst - CRA	Section, Township, Range:				
Landform (hillside, terrace, etc.): Terrace	Local relief (concave, convex, none):	convex	Slope (%): 0-2		
Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 1118193	Long: 1075299		Datum: NAD	0 83	
Soil Map Unit Name: Raynham silt loam, 0 to 2 percent slopes (Ra	NWI classification:	Upland			
Are climatic / hydrologic conditions on the site typical for this time of	f year? Yes X No (If	no, explain in Rema	arks.)		
Are Vegetation, Soil, or Hydrologysignification	antly disturbed? Are "Normal Circum	stances" present?	Yes X N	lo	
Are Vegetation, Soil, or Hydrologynatural	y problematic? (If needed, explain a	any answers in Rema	arks.)		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No <u>X</u>	Is the Samp	oled Area			
Hydric Soil Present?	Yes	No <u>X</u>	within a We	etland?	Yes	No <u>X</u>	
Wetland Hydrology Present?	Yes	No <u>X</u>	If yes, option	nal Wetland Site ID	:		
Remarks: (Explain alternative pro Absence of the three required wet	cedures here or in a s land criteria. Data poi	eparate rep nt is locate	port.) ed within a former lar	ndfill.			
HYDROLOGY							
Wetland Hydrology Indicators:				Seco	ondary Indicate	ors (minimum of two required)	
Primary Indicators (minimum of or	ne is required; check a	II that appl	ly)		Surface Soil C	racks (B6)	
Surface Water (A1)	N	ater-Stain	ned Leaves (B9)		Drainage Patte	erns (B10)	
High Water Table (A2)	A	quatic Faur	ına (B13)		Moss Trim Lin	es (B16)	
Saturation (A3)	M	arl Deposit	its (B15)		Dry-Season W	/ater Table (C2)	
Water Marks (B1)	н	ydrogen Sı	ulfide Odor (C1)		Crayfish Burrows (C8)		
Sediment Deposits (B2)	0	xidized Rh	nizospheres on Living	g Roots (C3)	Saturation Visible on Aerial Imagery (C9)		
Drift Deposits (B3)	P	resence of	f Reduced Iron (C4)		Stunted or Stressed Plants (D1)		
Algal Mat or Crust (B4)	R	ecent Iron	Reduction in Tilled S	Soils (C6)	Geomorphic Position (D2)		
Iron Deposits (B5)	T	nin Muck S	Surface (C7)		Shallow Aquitard (D3)		
Inundation Visible on Aerial Ir	nagery (B7) O	ther (Expla	ain in Remarks)		Microtopograp	hic Relief (D4)	
Sparsely Vegetated Concave	Surface (B8)				FAC-Neutral T	est (D5)	
Field Observations:							
Surface Water Present? Ye	s NoX	Depth (incl	:hes):				
Water Table Present? Ye	s <u>No X</u>	Depth (incl	:hes):				
Saturation Present? Ye	s No X	Depth (inch	:hes):	Wetland Hydrolo	gy Present?	Yes No X	
(includes capillary fringe)							
Describe Recorded Data (stream	gauge, monitoring wel	, aerial pho	otos, previous inspe	ctions), if available:			
Remarks:	Lindrology (primony or	- coondo		ationa (aurtaa	- water water	table and acturation)	
Absence of Wetland Indicators of	nyurulogy (primary an	u seconda	ary) and other lield of	servations (surface	e water, water	table and saturation).	

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. Prunus serotina	60	Yes	FACU	
2. Populus deltoides	15	Yes	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
3.				
4.				Species Across All Strata: 4 (B)
5.				
6.				That Are OBL, FACW, or FAC: 50.0% (A/B)
7.				Prevalence Index worksheet:
	75	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15)				OBL species 0 x 1 = 0
1.				FACW species 0 x 2 = 0
2.				FAC species 25 x 3 = 75
3.				FACU species 70 x 4 = 280
4.				UPL species 0 x 5 = 0
5.				Column Totals: 95 (A) 355 (B)
6.				Prevalence Index = $B/A = 3.74$
7.				Hydrophytic Vegetation Indicators:
		=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5)				2 - Dominance Test is >50%
1. Barbarea vulgaris	10	Yes	FAC	3 - Prevalence Index is ≤3.0 ¹
2. Plantago major	10	Yes	FACU	4 - Morphological Adaptations ¹ (Provide supporting
3.				data in Remarks or on a separate sheet)
4.				Problematic Hydrophytic Vegetation ¹ (Explain)
5				¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
7				Definitions of Vegetation Strata:
8				Tree – Woody plants 3 in. (7.6 cm) or more in
9				diameter at breast height (DBH), regardless of height.
10				Sapling/shrub – Woody plants less than 3 in. DBH
11				and greater than or equal to 3.28 ft (1 m) tall.
12				Herb – All herbaceous (non-woody) plants, regardless
	20	=Total Cover		of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size: 30)				Woody vines – All woody vines greater than 3.28 ft in
1				height.
2				Hydrophytic
3				Vegetation
4				Present? Yes <u>No X</u>
		=Total Cover		
Remarks: (Include photo numbers here or on a sepa Absence of wetland vegetation.	rate sheet.)			

SOIL	
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Profile Description: (Describe to the depth needed to document the indicator or conf						firm the absence of indic	cators.)	
Depth (in shas)	Matrix	0/	Redo:	x Featur	es Turs a ¹	1 2	Tautura	Demedia
(incries)	Color (moist)	%	Color (moist)	%	Туре	LOC	Texture	Remarks
0-16	10YR 4/2	100					Loamy/Clayey	
							<u> </u>	
¹ Type: C:	=Concentration. D=De	oletion. RI	A=Reduced Matrix. C	S=Cove	red or Coa	ated Sand	Grains. ² Location:	PL=Pore Lining, M=Matrix,
Hvdric Se	oil Indicators:	,					Indicators for Prob	lematic Hvdric Soils ³ :
Histo	sol (A1)		Polvvalue Below	/ Surface	e (S8) (LR	RR.	2 cm Muck (A10)) (LRR K. L. MLRA 149B)
Histic	Epipedon (A2)		MLRA 149B)		()(,	Coast Prairie Re	edox (A16) (LRR K. L. R)
Black	(Histic (A3)		Thin Dark Surfa	ce (S9) (I RA 149	B) 5 cm Mucky Pe	at or Peat (S3) (IRR K I R)
Black	(A3)		High Chroma Sa	onde (S1			B) O Chri Mucky F Ca	μ Surface (S8) (LPR K I)
Fiyun	ified Levere (AE)			linorol (E		(, L)	Thin Dork Surfa	
	illed Layers (A5)	(ineral (F	· 1) (LKK r	Λ, L)		(59) (LRR R, L)
	eted Below Dark Surfa	ce (ATT)	Loamy Gleyed N	/iatrix (F.	2)		Iron-Manganese	Masses (F12) (LRR K, L, R)
	Dark Surface (A12)			(F3) (F3)	、 、		Pleamont Flood	
Sand	ly Mucky Mineral (S1)		Redox Dark Sur	face (F6)			A6) (MLRA 144A, 145, 149B)
Sand	ly Gleyed Matrix (S4)		Depleted Dark S	Surface (F7)		Red Parent Mat	erial (F21)
Sand	ly Redox (S5)		Redox Depressi	ons (F8)			Very Shallow Da	ark Surface (TF12)
Strip	ped Matrix (S6)		Marl (F10) (LRR	K, L)			Other (Explain in	n Remarks)
Dark	Surface (S7)							
³ Indicator	s of hydrophytic vegeta	ation and v	vetland hydrology mu	st be pre	esent, unle	ess distur	bed or problematic.	
Restrictiv	ve Layer (if observed)):						
Type:								
Depth (inches):						Hvdric Soil Present?	Yes No X
Devention							.,	
Chroma c	of 2 without mottles	12 inches	Auger refusal @ 16	inches				
Data form	is revised from North	rentral and	Northeast Regional	Supplen	nent Versi	on 2 0 to	reflect the NRCS Field Inc	licators of Hydric Soils version 7.0
March 20	13 Frrata (http://soils.	usda nov/i	ise/hydric)	Ouppicin		011 2.0 10		
			,,					

Project/Site: Nash Road Landfill	City/County: Wheatfield/Niagara C	ounty Sampl	Sampling Date: April 24, 2014			
Applicant/Owner: Glenn Springs Holdings, Inc.		State: NY	Sampling Point:	DP-110		
Investigator(s): Christopher S. Andes and Leah Pabst - CRA	Section, Township, Range:					
Landform (hillside, terrace, etc.): Terrace	Local relief (concave, convex, none):	concave	Slope (%): 0-2			
Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 1118195	Long: 1075082		Datum: NAI	D 83		
Soil Map Unit Name: Raynham silt loam, 0 to 2 percent slopes (RaA) NWI classification: Upland						
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes <u>X</u> No (It	no, explain in Rema	arks.)			
Are Vegetation, Soil, or Hydrologysignification	antly disturbed? Are "Normal Circum	stances" present?	Yes X N	lo		
Are Vegetation, Soil, or Hydrologynatural	ly problematic? (If needed, explain a	any answers in Rem	arks.)			

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hvdrophytic Vegetation Present?	Yes X No	Is the Sampled Area				
Hvdric Soil Present?	Yes X No	within a Wetland?	Yes X No			
Wetland Hydrology Present?	Yes X No	If yes, optional Wetland	Site ID:			
Remarks: (Explain alternative procedu Presence of the three required wetland	res here or in a separate report. d criteria. Data point is located w) /ithin a former landfill.				
HYDROLOGY						
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is	required; check all that apply)		Surface Soil Cracks (B6)			
X Surface Water (A1)	X Water-Stained L	eaves (B9)	Drainage Patterns (B10)			
X High Water Table (A2)	Aquatic Fauna (B13)	X Moss Trim Lines (B16)			
X Saturation (A3)	Marl Deposits (E	315)	Dry-Season Water Table (C2)			
X Water Marks (B1)	Hydrogen Sulfid	le Odor (C1) Crayfish Burrows (C8)				
Sediment Deposits (B2)	Oxidized Rhizos	pheres on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3)	Presence of Rec	duced Iron (C4)	Stunted or Stressed Plants (D1)			
Algal Mat or Crust (B4)	Recent Iron Red	duction in Tilled Soils (C6) X Geomorphic Position (D2)				
Iron Deposits (B5)	Thin Muck Surfa	ace (C7) Shallow Aquitard (D3)				
Inundation Visible on Aerial Image	ery (B7) Other (Explain in	n Remarks) Microtopographic Relief (D4)				
Sparsely Vegetated Concave Surf	lace (B8)		FAC-Neutral Test (D5)			
Field Observations:						
Surface Water Present? Yes	X No Depth (inches)	: 0-2				
Water Table Present? Yes	X No Depth (inches)	: Surface				
Saturation Present? Yes	X No Depth (inches)	: Surface Wetland H	ydrology Present? Yes X No			
(includes capillary fringe)						
Describe Recorded Data (stream gaug	je, monitoring well, aerial photos	, previous inspections), if ava	ailable:			
Remarks:						
Presence of Wetland Indicators of Hyd	Irology (primary and secondary)	and other field observations	(surface water, water table and saturation).			

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	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Dominance Test worksheet:
1. Populus deltoides	80	Yes	FAC	Number of Dominant Species
2				That Are OBL, FACW, or FAC:3(A)
3.				Total Number of Dominant
4				Species Across All Strata: 4 (B)
5.				Borcont of Dominant Spacias
6.				That Are OBL, FACW, or FAC: 75.0% (A/B)
7.				Prevalence Index worksheet:
	80	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15)				OBL species $0 x 1 = 0$
1. Populus deltoides	50	Yes	FAC	FACW species $20 \times 2 = 40$
2 Prunus serotina	20	Ves	FACU	$FAC \text{ species} \qquad 130 \qquad \text{x} 3 = 390$
2. Lindoro bonzoin	20	Voc	FACW	$FACU \text{ species} \qquad 20 \qquad x 4 = -80$
	20	165	TACW	$\frac{1}{100} \text{ species} = \frac{2}{20} \text{ x}^{4} = \frac{3}{20} \text{ species}$
4				$\frac{0}{2} = \frac{1}{2} = \frac{1}$
5				Column Totals: 170 (A) 510 (B)
6				Prevalence Index = $B/A = 3.00$
7				Hydrophytic Vegetation Indicators:
	90	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5)				X 2 - Dominance Test is >50%
1				X 3 - Prevalence Index is $≤3.0^{1}$
2				4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4.				Problematic Hydrophytic Vegetation ¹ (Explain)
5				¹ Indicators of hydric soil and wetland hydrology must
7				Definitions of Vogetation Strate:
·				Deminions of Vegetation Strata.
o 9				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
10				Sapling/shrub – Woody plants less than 3 in DBH
11				and greater than or equal to 3.28 ft (1 m) tall.
12		=Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size: 30)				Woody vines – All woody vines greater than 3.28 ft in
1				height.
2				Hudronhutio
3				Vegetation
4				Present? Yes X No
		=Total Cover		
Remarks: (Include photo numbers here or on a sepa	rate sheet.)			
Dominance of wetland vegetation.	,			
SOIL				
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Profile Description: (Describe to the depth needed to document the indicator or c							onfirm the absence of indicators.)		
(inches)	Color (moist)	0/	Color (majet)	X Featur	Type ¹	1 oo ²	Toyturo	Pomorko	
(inches)		70		70	Туре	LUC	TEXIULE	rellidins	
0-18	10YR 2/1	100					Loamy/Clayey		
					·				
<u> </u>									
					•				
					·				
					•				
¹ Type: C	C=Concentration, D=Der	oletion, R	M=Reduced Matrix, C	S=Cove	ered or Co	ated Sanc	d Grains. ² Locatio	on: PL=Pore Lining, M=Matrix.	
Hydric S	oil Indicators:			<u> </u>			Indicators for P	roblematic Hydric Soils ³ :	
, Histo	osol (A1)		Polyvalue Below	v Surface	e (S8) (LR	RR,	2 cm Muck ((A10) (LRR K, L, MLRA 149B)	
Histi	c Epipedon (A2)		MLRA 149B)		• • •		Coast Prairie	e Redox (A16) (LRR K, L, R)	
Blac	k Histic (A3)		Thin Dark Surface	ce (S9) ((LRR R, N	ILRA 149	B) 5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)	
Hydr	rogen Sulfide (A4)		High Chroma Sa	ands (S1	1) (LRR /	(, L)	Polyvalue Be	elow Surface (S8) (LRR K, L)	
Strat	tified Layers (A5)		Loamy Mucky M	lineral (F	⁻ 1) (LRR I	< , L)	Thin Dark Su	urface (S9) (LRR K, L)	
Dep	leted Below Dark Surfac	ce (A11)	Loamy Gleyed N	Aatrix (F	2)		Iron-Mangan	iese Masses (F12) (LRR K, L, R)	
Thic	k Dark Surface (A12)		x Depleted Matrix	(F3)			Piedmont Flo	oodplain Soils (F19) (MLRA 149B)	
San	dy Mucky Mineral (S1)		Redox Dark Surf	face (F6	š)		Mesic Spodi	c (TA6) (MLRA 144A, 145, 149B)	
San	dy Gleyed Matrix (S4)		Depleted Dark S	Jurface ((F7)		Red Parent I	Material (F21)	
San	dy Redox (S5)		Redox Depressi	ons (F8))		Very Shallow	v Dark Surface (TF12)	
Strip	ped Matrix (S6)		Marl (F10) (LRR	. K, L)			Other (Expla	in in Remarks)	
Dark	CSurface (S7)								
³ Indicato	rs of hydrophytic vegeta	tion and	wetland hydrology mu	st be pre	esent, unle	ess distur	bed or problematic.		
Restricti	ve Layer (if observed)	:							
Type:									
Depth	(inches):						Hydric Soil Preser	nt? Yes <u>X</u> No	
Remarks	5:						4		
Chroma	of 1 @ 12 inches.								
Data form	n is revised from Northc	entral an	d Northeast Regional	Supplen	nent Versi	on 2.0 to	reflect the NRCS Field	I Indicators of Hydric Soils version 7.0	
March 20)13 Errata. (http://soils.u	usda.gov/	use/hydric)						
Í									
1									

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Nash Road Landfill	City/County: Wheatfield/Niagara Co	ounty Samplin	ng Date: April 24	, 2014
Applicant/Owner: Glenn Springs Holdings, Inc.		State:NYS	Sampling Point: [OP-111
Investigator(s): Christopher S. Andes and Leah Pabst - CRA	Section, Township, Range:			
Landform (hillside, terrace, etc.): Terrace	Local relief (concave, convex, none):	concave	Slope (%):	0-2
Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 1118082	Long: 1074526		Datum: NAD	83
Soil Map Unit Name: Canandaigua silt loam, 0 to 2 percent slopes	(Ca)	NWI classification: <u>L</u>	Jpland	
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes X No (If	no, explain in Remar	ks.)	
Are Vegetation, Soil, or Hydrologysignific	antly disturbed? Are "Normal Circum	stances" present?	Yes X No	<u> </u>
Are Vegetation, Soil, or Hydrologynatural	y problematic? (If needed, explain a	any answers in Remai	rks.)	

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present	? Yes_	X No	Is the Sampled Area	
Hydric Soll Present? Wetland Hydrology Present?	res_		If yes, ontional Wetland?	
Remarks: (Explain alternative p Presence of the three required w	rocedures here o retland criteria. [or in a separate repo Data point is located	rt.) within a former haul road alig	nment associated with a former landfill.
HYDROLOGY				
Wetland Hydrology Indicators: Primary Indicators (minimum of X Surface Water (A1) X High Water Table (A2) X Saturation (A3) X Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Sparsely Vegetated Concaw	<u>one is required;</u> Imagery (B7) re Surface (B8)	<u>check all that apply)</u> <u>X</u> Water-Stained <u>Aquatic Fauna</u> Marl Deposits <u>Hydrogen Sulfi</u> Oxidized Rhizc Presence of R <u>Recent Iron Re</u> Thin Muck Sur Other (Explain	Leaves (B9) (B13) (B15) ide Odor (C1) ospheres on Living Roots (C3 educed Iron (C4) eduction in Tilled Soils (C6) face (C7) in Remarks)	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) X Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Stunted or Stressed Plants (D1) X Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) X FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Y Water Table Present? Y Saturation Present? Y (includes capillary fringe) Y	'es X No 'es X No 'es X No	Depth (inche Depth (inche Depth (inche	s): 0-2 s): Surface s): Surface Wetland	Hydrology Present? Yes X No
Describe Recorded Data (stream Remarks: Presence of Wetland Indicators	1 gauge, monitor	ing well, aerial photo	 previous inspections), if a and other field observation: 	vailable:

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VEGETATION – Use scientific names of plants.

Sampling Point: DP-111

Interstation (Political etholices) 00 (Political etholices) 00 1 Councers patisation 00 (Political etholices) 00 (A) 3	Trop Stratum (Plot size: 20)	Absolute % Cover	Dominant Species2	Indicator	Dominance Test workshoot
Total Number of Dominant 2. Cuercus palusitis 15 No FACW 3. Total Number of Dominant Species (A) 5. Columna construct 2 (B) 6. Total Number of Dominant Species Across AI Strats: 2 (B) 7. Species Total Acro OBL, FACW, or FAC: 100.0% (AB) 7. Species 30 x1 = 0 7. Species 30 x2 = 60 7. Species 0 x1 = 0 7. Species 0 x1 = 0 7. Species 0 x1 = 0 7. Species 0 x4 = 0 VPL species 0 x5 = 0 Column Totals: 10 (A) 300 (B) 8. Species 15 =Total Cover 1 Hydrophylic Vegetation Indicators: 1 1 Ray of thydrophylic Vegetation X2 2 <td>1 Populus deltoides</td> <td>80</td> <td>Vos</td> <td>FAC</td> <td>Dominance rest worksheet.</td>	1 Populus deltoides	80	Vos	FAC	Dominance rest worksheet.
2	2 Ouerous palustris	15	No	FACW	Number of Dominant Species
5.	3	10	110	TAGW	
4.					Total Number of Dominant
3.	4		·		Species Across All Strata. <u>2</u> (B)
0.	5				Percent of Dominant Species
7.	6		. <u> </u>		That Are OBL, FACW, of FAC. 100.0% (A/B)
Set = Ideal Cover Interpretation of the statum (Plot size: 15) 1. Lindera benzoin 15 Yes FACW FACW species 0 x1 = 0 0 2.	<i>I</i>		Total Course		Tatal % Course of Multiply by
Sabing Sindum (Piot size:	Carling/Chrysh Ctrature (Distaire)	95	= I otal Cover		I otal % Cover ol: Multiply by:
1. Linders benzon 15 Yes FACW FACW species 30 X 2 = 60 2. FAC species 30 X 2 = 60 3. FAC species 30 X 4 = 0 4. FAC species 0 X 4 = 0 5. Column Totals: 110 (A) 300 (B) 6. Hydrophytic Vegetation Indicators: Hydrophytic Vegetation Indicators: <td>Sapling/Shrub Stratum (Plot size: 15)</td> <td>45</td> <td></td> <td>54.014</td> <td></td>	Sapling/Shrub Stratum (Plot size: 15)	45		54.014	
2. FAC species 80 x 3 = 240 3. FAC species 0 x 4 = 0 4. 1 1 0 300 (B) 6. 110 (A) 300 (B) 7. 15 =Total Cover 1 1 1 1 2.73 1. 15 =Total Cover 1 1 2.00min Totals: 1.00 3.0 (B) 2. 1 1 1 1 2.00minance Test is >50% X 2.00minance Test is >50% 3. 3 - - - - 1.00 - <t< td=""><td>1. Lindera benzoin</td><td>15</td><td>Yes</td><td>FACW</td><td>FACW species $30 \times 2 = 60$</td></t<>	1. Lindera benzoin	15	Yes	FACW	FACW species $30 \times 2 = 60$
3.	2		·		FAC species $80 \times 3 = 240$
4.	3				FACU species x 4 =
5. Column Totals: 110 (A) 300 (B) 6.	4				UPL species x 5 =
6. Prevalence Index = B/A =2.73 7.	5				Column Totals: 110 (A) 300 (B)
7.	6				Prevalence Index = B/A =2.73
15 =Total Cover 1 - Rapid Test for Hydrophytic Vegetation Herb Stratum (Plot size:)	7		. <u> </u>		Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size:5) X 2 - Dominance Test is >50% 1.		15	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
1.	Herb Stratum (Plot size: 5)				X 2 - Dominance Test is >50%
2.	1				X 3 - Prevalence Index is $\leq 3.0^{1}$
3.	2				4 - Morphological Adaptations ¹ (Provide supporting
4.	3.				data in Remarks or on a separate sheet)
5.	4				Problematic Hydrophytic Vegetation ¹ (Explain)
6.	5				¹ Indicators of hydric soil and wetland hydrology must
7.	6				be present, unless disturbed or problematic.
8.	7				Definitions of Vegetation Strata:
9. diameter at breast height (DBH), regardless of height. 10.	8				Tree – Woody plants 3 in. (7.6 cm) or more in
10.	9				diameter at breast height (DBH), regardless of height.
11.	10				Sapling/shrub – Woody plants less than 3 in. DBH
12.	11				and greater than or equal to 3.28 ft (1 m) tall.
	12				Herb – All herbaceous (non-woody) plants, regardless
Woody Vine Stratum (Plot size:30_) Woody vines - All woody vines greater than 3.28 ft in height. 2.			=Total Cover		of size, and woody plants less than 3.28 ft tall.
1. height. 2. . 3. . 4.	<u>Woody Vine Stratum</u> (Plot size: 30)				Woody vines – All woody vines greater than 3.28 ft in
2.	1				height.
3.	2				
4	3				Hydrophytic Vegetation
=Total Cover Remarks: (Include photo numbers here or on a separate sheet.)	4.				Present? Yes X No
Remarks: (Include photo numbers here or on a separate sheet.)			=Total Cover		
	Remarks: (Include photo numbers here or on a sepa	rate sheet.)			

SOIL	_
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Profile De	escription: (Describe	to the d	epth needed to docu	ment th	e indicat	or or con	firm the absence of	indicator	s.)	
Depth	Matrix		Redox	x Feature	es					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-18	10YR 2/1	75	7.5YR 5/1	5	С	Μ	Loamy/Clayey	Promine	ent redox cond	centrations
	10YR 4/2	20								
	Concentration D-Dev	letion P	M-Reduced Matrix	S-Cove		ated Sand	Grains ² Loca	tion: PI -I	Pore Lining M	-Matrix
Hvdric So	il Indicators:						Indicators for	Problema	tic Hvdric So	ils ³ :
Histos	sol (A1)		Polyvalue Below	Surface	e (S8) (LR	RR,	2 cm Muck	(A10) (LF	RR K, L, MLR	A 149B)
Histic	Epipedon (A2)		MLRA 149B)				Coast Prai	rie Redox	(A16) (LRR K	, L, R)
Black	Histic (A3)		Thin Dark Surface	ce (S9) (LRR R, N	ILRA 149	B) 5 cm Muck	xy Peat or	Peat (S3) (LR	R K, L, R)
Hydro	ogen Sulfide (A4)		High Chroma Sa	ands (S1	1) (LRR k	(, L)	Polyvalue I	Below Sur	face (S8) (LRI	R K, L)
Stratif	fied Layers (A5)		Loamy Mucky M	lineral (F	1) (LRR I	K, L)	Thin Dark	Surface (S	9) (LRR K, L)	
Deple	ted Below Dark Surface	ce (A11)	Loamy Gleyed N	Aatrix (F2	2)		Iron-Manga	anese Mas	sses (F12) (LR	R K, L, R)
Thick	Dark Surface (A12)		x Depleted Matrix	(F3)			Piedmont F	Floodplain	Soils (F19) (N	ILRA 149B)
Sandy	y Mucky Mineral (S1)		X Redox Dark Sur	face (F6))		Mesic Spo	dic (TA6) ((MLRA 144A,	145, 149B)
Sandy	y Gleyed Matrix (S4)		Depleted Dark S	Surface (F7)		Red Paren	t Material	(F21)	
Sandy	y Redox (S5)		Redox Depression	ons (F8)			Very Shallo	ow Dark S	urface (TF12)	
Stripp	ed Matrix (S6)		Marl (F10) (LRR	K, L)			Other (Exp	lain in Rer	marks)	
Dark ;	Sunace (S7)									
³ Indicators	s of hydrophytic vegeta	ation and	wetland hydrology mu	st be pre	esent, unle	ess disturl	bed or problematic.			
Restrictiv	e Layer (if observed)	:	, ,							
Туре:										
Depth (i	nches):						Hydric Soil Pres	ent?	Yes X	No
Remarks:										
Mix of chro	oma of 1 and 2 with m	ottles @	12 inches.							
Data form	is revised from Northo	entral ar	d Northeast Regional	Supplem	nent Versi	on 2.0 to	reflect the NRCS Fie	ld Indicato	ors of Hydric S	oils version 7.0
March 201	13 Errata. (http://soils.u	usda.gov	(use/hydric)							

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Nash Road Landfill	City/County: Wheatfield/Niagara	County	Sampling Date: April 24, 2014
Applicant/Owner: Glenn Springs Holdings, Inc.		State: N	NY Sampling Point: DP-112
Investigator(s): Christopher S. Andes and Leah Pabst - CRA	Section, Township, Range:		
Landform (hillside, terrace, etc.): Terrace	Local relief (concave, convex, none)	: convex	Slope (%): 0-2
Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 1118090	0 Long: 107445	52	Datum: NAD 83
Soil Map Unit Name: Canandaigua silt loam (Ca)		NWI classific	ation: Upland
Are climatic / hydrologic conditions on the site typical for this tin	ne of year? Yes X No	(If no, explain ir	n Remarks.)
Are Vegetation, Soil, or Hydrologysign	nificantly disturbed? Are "Normal Circu	mstances" pres	sent? Yes X No
Are Vegetation, Soil, or Hydrologynate	urally problematic? (If needed, explain	n any answers ii	n Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes No X Yes No X Yes No X	Is the Sampled Area within a Wetland? If yes, optional Wetland Site ID:	Yes NoX
Remarks: (Explain alternative proceed Absence of the three required wetland	Jures here or in a separate report d criteria. Data point is located wi	.) ithin a former haul road alignment as	sociated with a former landfill.
HYDROLOGY			
Wetland Hydrology Indicators: Primary Indicators (minimum of one in Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Sparsely Vegetated Concave Su Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes	s required; check all that apply) Water-Stained I Aquatic Fauna (Marl Deposits (I Hydrogen Sulfic Oxidized Rhizos Presence of Re Recent Iron Rec Thin Muck Surfa gery (B7) No X Depth (inches No X Depth (inches No X Depth (inches	Secc. Leaves (B9)	Indary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
(includes capillary fringe) Describe Recorded Data (stream gau	Ige, monitoring well, aerial photos	s, previous inspections), if available:	
Remarks: Absence of Wetland Indicators of Hyd	drology (primary and secondary)	and other field observations (surface	e water, water table and saturation).

VEGETATION – Use scientific names of plants.

Sampling Point: DP-112

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant	Indicator	Dominance Test worksheet:
1 Prupus serotina	65	Vos	FACIL	Dominance rest worksheet.
2			1400	Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
3				Total Number of Dominant
4				Species Across All Strata: (B)
5				Percent of Dominant Species
6				That Are OBL, FACW, or FAC: 0.0% (A/B)
7				Prevalence Index worksheet:
	65	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15)				OBL species 0 x 1 = 0
1		. <u> </u>		FACW species 0 x 2 = 0
2				FAC species 0 x 3 = 0
3				FACU species 110 x 4 = 440
4				UPL species 0 x 5 = 0
5				Column Totals: 110 (A) 440 (B)
6.				Prevalence Index = B/A = 4.00
7.				Hydrophytic Vegetation Indicators:
		=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5)				2 - Dominance Test is >50%
1. Rosa multiflora	15	Yes	FACU	3 - Prevalence Index is ≤3.0 ¹
2. Allium vineale	15	Yes	FACU	4 - Morphological Adaptations ¹ (Provide supporting
3. Poa pratensis	15	Yes	FACU	data in Remarks or on a separate sheet)
4.				Problematic Hydrophytic Vegetation ¹ (Explain)
5		·		¹ Indicators of hydric soil and wetland hydrology must
7.		·		Definitions of Vegetation Strata:
8.				Tree Weeds plants 2 in (7.0 err) or more in
9.				diameter at breast height (DBH), regardless of height.
10				Sapling/shrub – Woody plants less than 3 in. DBH
11				and greater than or equal to 3.28 ft (1 m) tall.
12				Herb – All herbaceous (non-woody) plants, regardless
	45	=Total Cover		of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size: 30)				Woody vines - All woody vines greater than 3.28 ft in
1				height.
2				Hydrophytic
3				Vegetation
4				Present? Yes No X
		=Total Cover		
Remarks: (Include photo numbers here or on a separ Absence of wetland vegetation.	rate sheet.)			

SOIL	
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Profile De	escription: (Describe	to the d	epth needed to docu	ment the	e indicat	or or cont	firm the absence of indi	cators.)
Depth	Matrix		Redox	x Feature	es			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-14	10YR 3/2	100					Loamy/Clayey	
¹ Type: C=	Concentration, D=De	pletion, R	M=Reduced Matrix, C	S=Cover	ed or Coa	ated Sand	Grains. ² Location:	PL=Pore Lining, M=Matrix.
Hydric So	oil Indicators:						Indicators for Prob	lematic Hydric Soils ³ :
Histo	sol (A1)		Polyvalue Below	Surface	(S8) (LR	RR,	2 cm Muck (A10	0) (LRR K, L, MLRA 149B)
Histic	Epipedon (A2)		MLRA 149B)				Coast Prairie Re	edox (A16) (LRR K, L, R)
Black	Histic (A3)		Thin Dark Surface	ce (S9) (LRR R, N	ILRA 149	B) 5 cm Mucky Pe	at or Peat (S3) (LRR K, L, R)
Hydro	ogen Sulfide (A4)		High Chroma Sa	nds (S1	1) (LRR k	(, L)	Polyvalue Belov	v Surface (S8) (LRR K, L)
Strati	fied Layers (A5)		Loamy Mucky M	ineral (F	1) (LRR I	(, L)	Thin Dark Surfa	ce (S9) (LRR K, L)
Deple	eted Below Dark Surface	ce (A11)	Loamy Gleyed N	latrix (F2	2)		Iron-Manganese	e Masses (F12) (LRR K, L, R)
Thick	Dark Surface (A12)		Depleted Matrix	(F3)			Piedmont Flood	plain Soils (F19) (MLRA 149B)
Sand	y Mucky Mineral (S1)		Redox Dark Sur	face (F6))		Mesic Spodic (1	A6) (MLRA 144A, 145, 149B)
Sand	y Gleyed Matrix (S4)		Depleted Dark S	urface (I	-7)		Red Parent Mat	erial (F21)
Sand	y Redox (S5)		Redox Depression	ons (F8)			Very Shallow Da	ark Surface (TF12)
Stripp	bed Matrix (S6)		Marl (F10) (LRR	K, L)			Other (Explain in	n Remarks)
Dark	Surface (S7)							
31			······································					
Destriction	s of nydropnytic vegeta	ation and	wetiand hydrology mu	st be pre	sent, uni	ess disturt	bed of problematic.	
Type	e Layer (if observed)	1						
- Type								.
Depth (i	inches):						Hydric Soil Present?	Yes <u>No X</u>
Remarks:								
Chroma o	f 2 without mottles @	12 inches	3. Auger refusal @ 14	inches.	The soil	is compris	sed of fill associated with	a former haul road.
Data form March 201	13 Frrata (http://soils.	sda gov	la Northeast Regional	Supplem	ient versi	on 2.0 to 1	reflect the NRCS Field Inc	dicators of Hydric Solis version
Maron 20		uouu.got/	acompany					

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Nash Road Landfill	City/County: Wheatfield/Niagara County	Sampling Date: April 24, 2014
Applicant/Owner: Glenn Springs Holdings, Inc.	State	: NY Sampling Point: DP-113
Investigator(s): Christopher S. Andes and Leah Pabst - CRA	Section, Township, Range:	
Landform (hillside, terrace, etc.): Terrace	Local relief (concave, convex, none): concave	e Slope (%): 0-2
Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 1118099	Description Long: <u>1073992</u>	Datum: NAD 83
Soil Map Unit Name: Canandaigua silt Ioam (Ca)	NWI cla	assification: Upland
Are climatic / hydrologic conditions on the site typical for this tim	ne of year? Yes <u>X</u> No (If no, exp	plain in Remarks.)
Are Vegetation, Soil, or Hydrologysign	ificantly disturbed? Are "Normal Circumstances	s" present? Yes X No
Are Vegetation, Soil, or Hydrologynatu	urally problematic? (If needed, explain any answ	wers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes No X Yes No X Yes No X	Is the Sampled Area within a Wetland? If yes, optional Wetland Site ID:	Yes NoX
Remarks: (Explain alternative proceed Absence of the three required wetland	Jures here or in a separate report d criteria. Data point is located wi	.) ithin a former haul road alignment as	sociated with a former landfill.
HYDROLOGY			
Wetland Hydrology Indicators: Primary Indicators (minimum of one in Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Image Sparsely Vegetated Concave Su Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes	s required; check all that apply) Water-Stained I Aquatic Fauna (Marl Deposits (I Hydrogen Sulfic Oxidized Rhizos Presence of Re Recent Iron Rec Thin Muck Surfa gery (B7) No X Depth (inches No X Depth (inches No X Depth (inches	Secc. Leaves (B9)	Indary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
(includes capillary fringe) Describe Recorded Data (stream gau	Ige, monitoring well, aerial photos	s, previous inspections), if available:	
Remarks: Absence of Wetland Indicators of Hyd	drology (primary and secondary)	and other field observations (surface	e water, water table and saturation).

VEGETATION – Use scientific names of plants.

Sampling Point: DP-113

	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Dominance Test worksheet:
1. Populus deltoides	80	Yes	FAC	Number of Dominant Species
2.				That Are OBL, FACW, or FAC: 1 (A)
3.				
		·		I otal Number of Dominant
4		·		Species Across All Strata(B)
5		·		Percent of Dominant Species
6				That Are OBL, FACW, or FAC: 20.0% (A/B)
7				Prevalence Index worksheet:
	80	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15)				OBL species 0 x 1 = 0
1. Rosa multiflora	45	Yes	FACU	FACW species 0 x 2 = 0
2		·		EAC species $80 \times 3 = 240$
2		·		EACU species = 110 x4 = 440
· · · · · · · · · · · · · · · · · · ·		·		
4.		·		UPL species $0 x 5 = 0$
5		·		Column Totals: 190 (A) <u>680</u> (B)
6				Prevalence Index = $B/A = 3.58$
7				Hydrophytic Vegetation Indicators:
	45	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5)				2 - Dominance Test is >50%
1. Glechoma hederacea	30	Yes	FACU	3 - Prevalence Index is ≤3.0 ¹
2 Clavtonia virginica	20	Yes	FACU	4 - Morphological Adaptations ¹ (Provide supporting
	15	Vee		data in Remarks or on a separate sheet)
s. <u>Poa pratensis</u>	15	res	FACU	Duch low of a Uk duch by the Manatation ¹ (Even bin)
4.		·		
5				¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
7				Definitions of Vegetation Strata:
8				Tree – Woody plants 3 in (7.6 cm) or more in
9.				diameter at breast height (DBH), regardless of height.
10				
11		·		sapling/shrub – Woody plants less than 3 in. DBH
10		·		
12.				Herb – All herbaceous (non-woody) plants, regardless
	65	= I otal Cover		of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size: 30)				Woody vines - All woody vines greater than 3.28 ft in
1				height.
2				
3				Hydrophytic Vegetation
4.				Present? Yes No X
		=Total Cover		
Remarke: (Include photo numbers here or on a sona	rate sheet)	10101 00101		1
Absence of wetland vegetation.				

Profile Description: (Describe to the	depth needed to docu	ment th	e indicat	or or con	firm the absence of indic	ators.)	
Depth Matrix	Redo	x Featur	es				
(inches) Color (moist) %	Color (moist)	%	Type ¹	Loc ²	Texture	Remar	ks
0-8 10YR 4/2 60	<u> </u>				Loamy/Clayey		
10YR 3/3 40							
8-18 10YR 4/2 100					Loamy/Clayey		
<u> </u>							
							M. Matrice
Type: C=Concentration, D=Depletion,	RM=Reduced Matrix, C	S=Cove	red or Coa	ated Sand	Indicators for Proble	PL=Pore Lining	, M=Matrix. Soils ³
Histosol (A1)	Polyvalue Below	/ Surface	e (S8) (I R	RR	2 cm Muck (A10)		RA 149B)
Histic Epipedon (A2)	MLRA 149B)	oundo	(00) (_	,	Coast Prairie Red	dox (A16) (LRF	R K, L, R)
Black Histic (A3)	Thin Dark Surfa	ce (S9) (LRR R, N	ILRA 149	B) 5 cm Mucky Pear	t or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4)	High Chroma Sa	ands (S1	1) (LRR 🖌	(, L)	Polyvalue Below	Surface (S8) (I	LRR K, L)
Stratified Layers (A5)	Loamy Mucky N	lineral (F	⁻ 1) (LRR I	(, L)	Thin Dark Surfac	e (S9) (LRR K	, L)
Depleted Below Dark Surface (A11) Loamy Gleyed N	/latrix (F	2)		Iron-Manganese	Masses (F12)	(LRR K, L, R)
Thick Dark Surface (A12)	Depleted Matrix	(F3)			Piedmont Floodp	lain Soils (F19) (MLRA 149B)
Sandy Mucky Mineral (S1)	Redox Dark Sur	face (F6	5) ——		Mesic Spodic (TA	(MLRA 144	A, 145, 149B)
Sandy Gleyed Matrix (S4)	Depleted Dark S	Surface (F7)		Red Parent Mate	rial (F21)	
Sandy Redox (S5)	Redox Depressi	ons (⊦8)			Very Shallow Dai	K Surface (TF	12)
Stripped Matrix (S6)	Marl (F10) (LRR	κ, L)			Other (Explain in	Remarks)	
³ Indicators of hydrophytic vegetation ar	d wetland hydrology mu	st be pre	esent, unle	ess distur	bed or problematic.		
Restrictive Layer (if observed):							
Туре:							
Depth (inches):					Hydric Soil Present?	Yes	<u>No X</u>
Remarks:	<u> </u>						
Chroma of 2 without mottles @ 12 inch	es. The soil is comprise	d of fill a	ssociated	with a for	rmer haul road.	ootoro of Lludri	e Ceile version 7.0
March 2013 Frrata (http://soils.usda.org	and Northeast Regional	Supplei		011 2.0 10			
	, acc, i j allo,						

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Nash Road Landfill	City/County: Wheatfield/Niagara Co	ounty Samplin	Sampling Date: April 24, 20		
Applicant/Owner: Glenn Springs Holdings, Inc.		State:NYS	Sampling Point:	DP-114	
Investigator(s): Christopher S. Andes and Leah Pabst - CRA	Section, Township, Range:				
Landform (hillside, terrace, etc.): Terrace	Local relief (concave, convex, none):	concave	Slope (%):	0-2	
Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 1118105	Long: 1073976	1	Datum: NAD	83	
Soil Map Unit Name: Canandaigua silt Ioam, 0 to 2 percent slopes	(Ca)	NWI classification:	Jpland		
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes <u>X</u> No (If	no, explain in Rema	rks.)		
Are Vegetation, Soil, or Hydrologysignific	antly disturbed? Are "Normal Circum	stances" present?	Yes X No	o	
Are Vegetation, Soil, or Hydrologynatural	lly problematic? (If needed, explain a	any answers in Rema	ırks.)		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No	Is the Sampled Area	
Hydric Soil Present?	Yes X	No	within a Wetland?	
Wetland Hydrology Present?	Yes A		If yes, optional wetland a	
Remarks: (Explain alternative proce Presence of the three required wetla	dures here or in nd criteria. Data	a separate report.) ↓ point is located wit	hin a former haul road align	ment associated with a former landfill.
HYDROLOGY				
Wetland Hydrology Indicators: Primary Indicators (minimum of one. X Surface Water (A1) X High Water Table (A2) X Saturation (A3) X Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Ima Sparsely Vegetated Concave Si	<u>is required; che</u> 	<u>ck all that apply)</u> <u>(</u> Water-Stained Le Aquatic Fauna (B Marl Deposits (B' Hydrogen Sulfide Oxidized Rhizosp Presence of Redu Recent Iron Redu Thin Muck Surfac Other (Explain in	eaves (B9) 813) 15) 9 Odor (C1) 9 oheres on Living Roots (C3) uced Iron (C4) uction in Tilled Soils (C6) ce (C7) Remarks)	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) X Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) X Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) X FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes conjillon) Yes	X No X No X No	Depth (inches): Depth (inches): Depth (inches):	0-2 Surface Surface Wetland Hy	ydrology Present? Yes X No
Describe Recorded Data (stream ga	uge, monitoring	well, aerial photos,	previous inspections), if ava	ailable:
Remarks: Presence of Wetland Indicators of H	ydrology (prima	ry and secondary) a	and other field observations	(surface water, water table and saturation).

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VEGETATION – Use scientific names of plants.

Sampling Point: DP-114

Trac Stratum (Diat size: 30)	Absolute	Dominant	Indicator	Deminance Test workshoot
<u>Tree Stratum</u> (Plot size. <u>50</u>)	% COVEI	Species:		Dominance rest worksheet.
Populus deiloides 2.	00	165		Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
3				Total Number of Dominant
4				Species Across All Strata: <u>3</u> (B)
5				Percent of Dominant Species
6				That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)
7				Prevalence Index worksheet:
	60	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15)				OBL species 0 x 1 = 0
1. Lindera benzoin	25	Yes	FACW	FACW species 25 x 2 = 50
2.				FAC species 60 x 3 = 180
3.				FACU species 0 x 4 = 0
4.				UPL species 0 x 5 = 0
5.				Column Totals: 85 (A) 230 (B)
6.		·		Prevalence Index = $B/A = 2.71$
7.		·		Hydrophytic Vegetation Indicators:
	25	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5)		•		X 2 - Dominance Test is >50%
1. Carex	30	Yes		X 3 - Prevalence Index is ≤3.0 ¹
2.				4 - Morphological Adaptations ¹ (Provide supporting
3.				data in Remarks or on a separate sheet)
4.				Problematic Hydrophytic Vegetation ¹ (Explain)
5 6.		·		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7.				Definitions of Vegetation Strata:
8.				Tree Weedy plants 2 in (7.6 cm) or more in
9.				diameter at breast height (DBH), regardless of height.
10		·		Sapling/shrub – Woody plants less than 3 in. DBH
12		·		
12.	30	=Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size: 30)				Woody vines – All woody vines greater than 3.28 ft in
1				height.
2				
3				Hydrophytic Vegetation
4.				Present? Yes X No
		=Total Cover		
Remarks: (Include photo numbers here or on a sepa	rate sheet.)	-		
Dominance of wetland vegetation.	,			

Profile De	escription: (Describe	to the d	epth needed to docu	ment th	e indicate	or or con	firm the absence o	f indicato	ors.)	
Depth	Matrix		Redo	x Feature	es					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-11	10YR 4/2	85	5YR 5/8	15	С	Μ	Loamy/Clayey	Promir	nent redox conc	centrations
11-18	10YR 2/1	95	7.5YR 5/8	5	С	Μ	Loamy/Clayey			
17									Dens Lisian M	Mateix
Type: C=	=Concentration, D=De	pletion, R	M=Reduced Matrix, C	S=Cover	ed or Coa	ated Sand	Indicators for	Problem	Pore Lining, M	=Matrix. ils ^{3.}
Histor	sol (A1)		Polyvalue Below	/ Surface	e (S8) (LR	RR,	2 cm Muc	k (A10) (L	RR K, L, MLR	A 149B)
Histic	Epipedon (A2)		MLRA 149B)				Coast Pra	irie Redox	(A16) (LRR K ,	, L, R)
Black	Histic (A3)		Thin Dark Surfa	ce (S9) (LRR R, N	ILRA 149	B)5 cm Muc	ky Peat or	⁻ Peat (S3) (LR	R K, L, R)
Hydro	ogen Sulfide (A4)		High Chroma Sa	ands (S1	1) (LRR F	K, L)	Polyvalue	Below Su	rface (S8) (LRF	R K, L)
Strati	fied Layers (A5)		Loamy Mucky N	lineral (F	1) (LRR I	(, L)	Thin Dark	Surface (S9) (LRR K, L)	
Deple	eted Below Dark Surfa	ce (A11)	Loamy Gleyed N	Aatrix (F2	2)		Iron-Mang	anese Ma	isses (F12) (LR	(R K, L, R)
I NICK	Dark Surface (A12)		X Depleted Matrix	(F3) faco (E6)			Pleamont	Floodplall	1 Solis (F19) (IV	1LRA 149B)
Sand	y Gleved Matrix (S4)		Depleted Dark Su		, E7)		Red Parer	nt Material	(INIERA 144A,	145, 1450)
Sand	v Redox (S5)		Depleted Dark C	ons (F8)	')		Very Shallow Dark Surface (TE12)			
Stripp	ped Matrix (S6)		Marl (F10) (LRR	K. L)			Other (Explain in Remarks)			
Dark	Surface (S7)			, ,					,	
³ Indiactor	a of hydrophytic ycart	tion and	watland hydrology mu	ot ho pro	oont unk	oo diatur	had ar problematic			
Restrictiv	ve Laver (if observed)	:	wettand hydrology mu	ist be pre	sent, unit	ess distui				
Type:	, <u> </u>	-								
Depth (i	inches):						Hydric Soil Pres	sent?	Yes X	No
Remarks:										
Chroma o	f 1 with mottles @ 12	inches.	d North cost Device al			an 0.0 ta		ما الما الم	ana af Lludria C	
March 202	13 Frrata, (http://soils.	isda.gov	use/hvdric)	Supplen	ient versi	01 2.0 10	reliect the NRC3 Fi	ela maical		olis version 7.0

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Nash Road Landfill	City/County: Wheatfield/Niagara Co	ounty Sampli	Sampling Date: April 24, 201		
Applicant/Owner: Glenn Springs Holdings, Inc.		State: NY	Sampling Point:	DP-115	
Investigator(s): Christopher S. Andes and Leah Pabst - CRA	Section, Township, Range:				
Landform (hillside, terrace, etc.): Terrace	Local relief (concave, convex, none):	concave	Slope (%):	0-2	
Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: 1118053	Long: 1072965		Datum: NAD	83	
Soil Map Unit Name: Raynham silt loam, 0 to 2 percent slopes (Ra	A)	NWI classification:	Upland		
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes <u>X</u> No (If	no, explain in Rema	rks.)		
Are Vegetation, Soil, or Hydrologysignific	antly disturbed? Are "Normal Circum	stances" present?	Yes X N	lo	
Are Vegetation, Soil, or Hydrologynatural	ly problematic? (If needed, explain a	any answers in Rema	arks.)		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes_	X No	Is the Sampled Area	Mar V Na
Hydric Soll Present?	Yes		lf vos. optional Wotland	Yes X No Sito ID:
Remarks: (Explain alternative pro Presence of the three required we	icedures here o	r in a separate repo ata point is located	within a former haul road align	ment associated with a former landfill.
HYDROLOGY				
Wetland Hydrology Indicators: Primary Indicators (minimum of or X Surface Water (A1) X High Water Table (A2) X Saturation (A3) X Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial II Sparsely Vegetated Concave	<u>ne is required; c</u> magery (B7) s Surface (B8)	 <u>heck all that apply</u>) X Water-Stained Aquatic Fauna Marl Deposits Hydrogen Sulf Oxidized Rhize Presence of R Recent Iron R Thin Muck Su Other (Explair 	d Leaves (B9) a (B13) (B15) fide Odor (C1) ospheres on Living Roots (C3) reduced Iron (C4) eduction in Tilled Soils (C6) rface (C7) a in Remarks)	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) X Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) X Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) X FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Ye Water Table Present? Ye Saturation Present? Ye (includes capillary fringe) Describe Recorded Data (stream	s X No s X No s X No gauge, monitori	Depth (inche Depth (inche Depth (inche Depth (inche ing well, aerial phot	es): 0-4 es): Surface es): Surface Wetland H os, previous inspections), if ava	iydrology Present? Yes X No
Remarks: Presence of Wetland Indicators of	f Hydrology (prir	mary and secondar	y) and other field observations	(surface water, water table and saturation).

Г

VEGETATION – Use scientific names of plants.

Sampling Point: DP-115

	Absolute	Dominant	Indicator	
<u>Tree Stratum</u> (Plot size: <u>30</u>)	% Cover	Species?	Status	Dominance Test worksheet:
1. Populus deltoides	60	Yes	FAC	Number of Dominant Species
2. <u>Betula populifolia</u>	50	Yes	FAC	That Are OBL, FACW, or FAC: 5 (A)
3				Total Number of Dominant
4				Species Across All Strata: 6 (B)
5.				Demonst of Dominant Spacing
6.				That Are OBL, FACW, or FAC: 83.3% (A/B)
7		<u> </u>		Prevalence Index worksheet:
	110	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15)		-		$\frac{1}{\text{OBL species}} \qquad 0 \qquad \text{x1} = 0$
Corpus amomum	25	Vee		
	35			FACW species 100 $x z = 200$
2. Lindera benzoin	25	Yes	FACW	FAC species 110 x 3 = 330
3		- <u> </u>		FACU species x 4 =
4		. <u> </u>		UPL species 0 x 5 = 0
5		<u> </u>		Column Totals: 210 (A) 530 (B)
6.				Prevalence Index = B/A = 2.52
7				Hydrophytic Vegetation Indicators:
	60	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5)		-		X 2 - Dominance Test is >50%
1. Phalaris arundinacea	40	Yes	FACW	X 3 - Prevalence Index is $\leq 3.0^1$
2. Carex	30	Yes		4 - Morphological Adaptations ¹ (Provide supporting
3				data in Remarks or on a separate sheet)
4				Problematic Hydrophytic Vegetation ¹ (Explain)
5				¹ Indicators of hydric soil and wetland hydrology must
6.				be present, unless disturbed or problematic.
7.				Definitions of Vegetation Strata:
8				Tree – Woody plants 3 in. (7.6 cm) or more in
9		·		diameter at breast height (DBH), regardless of height.
10		·		Sapling/shrub – Woody plants less than 3 in. DBH
11		<u> </u>		and greater than or equal to 3.28 ft (1 m) tall.
12				Herb – All herbaceous (non-woody) plants, regardless
	70	=Total Cover		of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size: 30)				Woody vines – All woody vines greater than 3 28 ft in
1.				height.
2.				
3		·		Hydrophytic
4		·		Vegetation Present? Yes X No
		-Total Covor		
Pomarka: (Include photo support have as a series	roto obcot \			1
Dominance of wetland vegetation.	iale sneet.)			

SOIL	
------	--

Profile D	escription: (Describe	to the d	epth needed to docu	ment the	e indicat	or or con	firm the absence o	of indicato	ors.)	
Depth	Matrix		Redo	x Feature) - 1	. 2				
(inches)	Color (moist)	%	Color (moist)	%	Туре	Loc	Texture		Remarks	
0-18	10YR 4/2	85	7.5YR 5/8	15	С	M	Loamy/Clayey	Promir	nent redox conce	entrations
			10YR 6/8	5	С					
							<u> </u>			
					. <u> </u>					
¹ Type: C		oletion R	M-Reduced Matrix C	S=Cover	ed or Co	ated Sand	Grains ² Loc	ation: PI -	-Pore Lining M-	-Matrix
Hydric S	oil Indicators:			0-00001			Indicators for	r Problem	atic Hydric Soi	-Matrix.
Histo	osol (A1)		Polyvalue Below	/ Surface	(S8) (LR	RR,	2 cm Muc	k (A10) (L	.RR K, L, MLRA	1 49B)
Histi	c Epipedon (A2)		MLRA 149B)				Coast Pra	airie Redox	k (A16) (LRR K,	L, R)
Black Histic (A3)			Thin Dark Surface	LRR R, N	ILRA 149	B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)				
Hydrogen Sulfide (A4)			High Chroma Sa	1) (LRR	(, L)	Polyvalue	Below Su	urface (S8) (LRR	. K, L)	
Stratified Layers (A5)			Loamy Mucky M	1) (LRR I	(, L)	Thin Dark Surface (S9) (LRR K, L)				
Depleted Below Dark Surface (A11)			Loamy Gleyed Matrix (F2)				Iron-Manganese Masses (F12) (LRR K, L, R)			
Inick Dark Surface (A12)			<u>x</u> Depleted Matrix			Pleamont Floodplain Solls (F19) (MLRA 149B)				
Sandy Mucky Mineral (S1)			Redux Dark Sul	=7)		Intesic Spould (TAS) (MLKA 144A, 145, 149B) Red Parent Material (F21)				
Sandy Bedox (S5)			Depieted Dark C	')		Very Shallow Dark Surface (TE12)				
Stripped Matrix (S6)			Marl (F10) (I RR			Very Shallow Dark Sufface (TF12) Other (Evplain in Remarks)				
Dark Surface (S7)								Smarksj		
³ Indicator	rs of hydrophytic vegeta	ation and	wetland hydrology mu	st be pre	esent, unle	ess disturl	bed or problematic.			
Restricti Type:	ve Layer (if observed)	:								
Depth	(inches):						Hydric Soil Pre	sent?	Yes X	No
Remarks	:									
Chroma o	of 2 with mottles @ 12 i	nches.								
Data form	n is revised from Northo	central ar	nd Northeast Regional	Supplem	ent Versi	on 2.0 to	reflect the NRCS Fi	eld Indicat	tors of Hydric Sc	ils version 7.0
March 20	13 Errata. (http://soils.u	usda.gov	/use/hydric)							

APPENDIX B

COLOR PHOTOGRAPHS

Former Nash Road Landfill Interim Remedial Action Work Plan Town of Wheatfield, Niagara County, New York



1. Looking south at forested wetlands located in the southwestern corner of the Study Area.



2. Looking north of the forested wetlands located in the central portion of the Study Area.



3. Looking west at forested wetland and drainage feature along the northern portion of the Study Area.



4. Looking south at an emergent wetland located in the northern portion of the Study Area adjacent to DP-101.



5. Looking west at an emergent wetland located in the northern portion of the Study Area adjacent to DP-101.



6. Looking south at forested wetlands and dirt trail located in the southwestern corner of the Study Area.



7. Looking north of typical uplands found northwest of the WB line.



8. Looking southwest of forested wetlands adjacent to the overhead power line easement located south of the Study Area.



9. Looking southwest of forested wetlands adjacent to the gas easement located north of the Study Area.



10. Looking east of upland area (WD line) within the Study Area. The upland area appears to be associated with a former access road to the Site.



11. Looking east of upland area (WE line) within the Study Area. The upland area appears to be associated with a former access road to the Site.



12. Looking northeast of forested/emergent wetlands adjacent to a gas line transfer station.

Former Nash Road Landfill Interim Remedial Action Work Plan Town of Wheatfield, Niagara County, New York



13. Looking southwest of emergent wetlands within the overhead power line easement located along the southern Site boundary.



14. Looking northwest at a road side swale adjacent to Nash Road. The swale connects to the forested/emergent wetlands located within the Study Area.



15. Looking south at a road side swale and culvert pipe adjacent to Nash Road. The swale connects to the forested/emergent wetlands located within the Study Area. The culvert pipe flows underneath Nash Road and connects to an off-site drainage ditch.



16. Looking west of the off-site drainage ditch along Nash Road.

ATTACHMENT G

RESOURCE AGENCY CORRESPONDANCE



410 Eagleview Boulevard, Suite 110 Exton, Pennsylvania 19341 Telephone: (610) 321-1800 Fax: (610) 321-2763 www.CRAworld.com

August 6, 2014

Reference No. 085121

New York State Office of Parks and Recreation and Historic Preservation Historical Preservation Field Services Bureau Peebles Island Resource Center P.O. Box 189 Waterford, NY 12188-0189

Dear Sir or Madame:

Re: Request for Historical Preservation Review Former Nash Road Landfill NYSDEC Site #932054 <u>Town of Wheatfield, Niagara County, New York</u>

Conestoga-Rovers & Associates, Inc. (CRA) is requesting a review of the New York State Office of Parks and Recreation and Historic Preservation (NYPRHP), Historical Preservation Field Services Bureau database to determine if historical buildings (federal, state and local), historical sites and archeological sites are located on or within a 1-mile radius of the former Nash Road Landfill (Site) located on Nash Road in the Town of Wheatfield, Niagara County, New York. The enclosed 7.5-minute USGS topographic quadrangle map (Tonawanda West and Tonawanda East, NY) and aerial location map shows the location of the Site. The NYPRHP project review cover form and color photographs are included with this letter to assist in your review.

The Site is comprised of the former Nash Road Landfill which was operated by the Niagara Sanitation Company between 1964 and 1968 for disposal of municipal and industrial wastes. The Site is a rectangular-shaped property (historically disturbed) encompassing approximately 20 acres and is wooded with trees (eastern cottonwood, *Populus deltoides*) and heavy brush and contains areas of seasonally-influenced ponded water. Current access to the Site is not provided by any immediately identifiable means; however, historic access to the Site for disposal activities occurred along a haul road that was constructed from Nash Road, located west of the Site. The Site is bordered to the north by the Holy Infant Shrine, to the east by a cemetery and a property that contains a motel and livery service, to the south by utility right-of-ways (overhead electric and underground natural gas and brine pipelines) and residences, and to the west by undeveloped land and Nash Road.







August 6, 2014

Reference No. 085121

- 2 -

The Site is currently undergoing site remediation under the guidance of the New York State Department of Environmental Conservation (NYSDEC) (Site #932054). The project consists of the removal of impacted soil waste from the Site and restoration of the disturbed portions of the Site to comparable pre-excavation conditions. The industrial wastes within the soils in the Site are located approximately 10 to 12 feet below the existing ground surface. The majority of the Site has been historically excavated and disturbed (pipelines, landfills and monitoring well installation). The work activities include access road construction, installation of fencing and sheet piles, sampling, excavation, dewatering and disposal activities. The impacted soil waste will be disposed of at an approved off-site facility. The impacted areas will be restored by removing stone access roads and sheet piles, backfilling with fill/soil meeting NYSDEC DER-10 requirements, and seeding with a native grass seed mixture. The proposed activities will be conducted under an Army Corps of Engineers NWP-38, which requires coordination under Section 106 with the NYPRHP for potential conflicts with historical or archeological sites.

We look forward to your review and response. If you have any questions or require additional information, please contact me at (610) 321-1800 ext. 15 or <u>candes@craworld.com</u>.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

motor & Curde

Christopher S. Andes Ecologist

CSA/cjm/1

Encl.

cc: Dennis Hoyt, CRA



New York State Office of Parks, Recreation and Historic Preservation

Historic Preservation Field Services Bureau

Peebles Island Resource Center, PO Box 189, Waterford, NY 12188-0189 (Mail) Delaware Avenue, Cohoes 12047 (Delivery)

(518) 237-8643

PROJECT REVIEW COVER FORM

Rev. 5-05

Please complete this form and attach it to the top of **any and all information submitted to this office** for review. Accurate and complete forms will assist this office in the timely processing and response to your request.

This information relates to a previous	If you	have checked this box a	Ind noted the previous Project
PROJECT NUMBER	_PR char	w (PR) number assigned ue unless any of the req	uired information below has
COUNTY			
2. This is a new project.	u have checked this box you will need to plete ALL of the following information.		
Project Name Nash Road Lan	ndfill		
Location Nash Road (In th You MUST include street	e vicinity of of 7403 Nash number, street name and/or County, State or Intersta	Road, no te route number if a	street address
City/Town/Village Town of Whe	eatfield ur project is being undertaken. If in a hamlet you musi	also provide the na	me of the town.
County <u>Niagara</u> If your undertaking* covers mu	Itiple communities/counties please attach a list definin	g all municipalities/c	counties included.
TYPE OF REVIEW REQUIRED/R	REQUESTED (Please answer both question)	s)	
A. Does this action involve a permit approval of	or funding, now or ultimately from any other gover	nmental agency?	
if Yes, list agency name(s) and permit(s)/app			Otata Fadaval
IISACE	Nationwide Dermit 38		
NYSDEC	401 Water Quality Certification		
B. Have you consulted the NYSHPO web site at to determine the preliminary presence or abs	t ** <u>http://nysparks.state.ny.us</u> sence of previously identified cultural	X Yes	
Was the project site wholly or partially includ archeologically sensitive area?	X Yes	No	
Does the project site involve or is it substant for listing in the NY State or National Registe	tially contiguous to a property listed or recommen ers of Historic Places?	ded Yes	X No
CONTACT PERSON FOR PROJECT			
Name Christopher S. Andes	Title		
Firm/Agency Conestoga-Rovers & Associates			
Address 410 Eagleview Blvd., Suite 110	City Exton	STATE РА	Zip _19341
Phone (610) 321-1800 E	AX (610) 321-2763 E N	ail candes@crawor	rld.com

**http://nysparks.state.ny.us then select HISTORIC PRESERVATION then select On Line Resources

The Historic Preservation Review Process in New York State

In order to insure that historic preservation is carefully considered in publicly-funded or permitted undertakings*, there are laws at each level of government that require projects to be reviewed for their potential impact/effect on historic properties. At the federal level, Section 106 of the National Historic Preservation Act of 1966 (NHPA) directs the review of federally funded, licensed or permitted projects. At the state level, Section 14.09 of the New York State Parks, Recreation and Historic Preservation Law of 1980 performs a comparable function. Local environmental review for municipalities is carried out under the State Environmental Quality Review Act (SEQRA) of 1978.

http://nysparks.state.ny.us then select HISTORIC PRESERVATION then select Environmental Review

Project review is conducted in two stages. First, the Field Services Bureau assesses affected properties to determine whether or not they are listed or eligible for listing in the New York State or National Registers of Historic Places. If so, it is deemed "historic" and worthy of protection and the second stage of review is undertaken. The project is reviewed to evaluate its impact on the properties significant materials and character. Where adverse effects are identified, alternatives are explored to avoid, or reduce project impacts; where this is unsuccessful, mitigation measures are developed and formal agreement documents are prepared stipulating these measures.

ALL PROJECTS SUBMITTED FOR REVIEW SHOULD INCLUDE THE FOLLOWING MATERIAL(S).

Project Description

Attach a full description of the nature and extent of the work to be undertaken as part of this project. Relevant portions of the project applications or environmental statements may be submitted.



Х

Maps Locating Project

Include a map locating the project in the community. The map must clearly show street and road names surrounding the project area as well as the location of all portions of the project. Appropriate maps include tax maps, Sanborn Insurance maps, and/or USGS quadrangle maps.

Х

Photographs

Photographs may be black and white prints, color prints, or color laser/photo copies; standard (black and white) photocopies are NOT acceptable.

- If the project involves rehabilitation, include photographs of the building(s) involved. Label each exterior view to a site map and label all interior views.

-*If the project involves new construction*, include photographs of the surrounding area looking out from the project site. Include photographs of any buildings (more than 50 years old) that are located on the project property or on adjoining property.

NOTE: Projects submissions will not be accepted via facsimile or e-mail.

**Undertaking* is defined as an agency's purchase, lease or sale of a property, assistance through grants, loans or guarantees, issuing of licenses, permits or approvals, and work performed pursuant to delegation or mandate.



85121-00(002)GN-NI002 AUG 4/2014



85121-00(002)GN-NI001 AUG 4/2014



410 Eagleview Boulevard, Suite 110 Exton, Pennsylvania 19341 Telephone: (610) 321-1800 Fax: (610) 321-2763 www.CRAworld.com

August 6, 2014

Reference No. 085121

New York Field Office Supervisor U.S. Fish and Wildlife Service 3817 Luker Road Cortland, NY 13045

Dear Sir or Madame:

Re: Information Request - Threatened and Endangered Species Former Nash Road Landfill NYSDEC Site #932054 <u>Town of Wheatfield, Niagara County, New York</u>

The purpose of this letter is to request information on any documented occurrences of federally listed threatened, endangered, rare, or candidate plant or animal species within the vicinity of the former Nash Road Landfill (Site) located on Nash Road in the Town of Wheatfield, Niagara County, New York. The enclosed 7.5-minute USGS topographic quadrangle map (Tonawanda West and Tonawanda East, NY) and aerial location map shows the location of the Site.

The Site is currently undergoing site remediation under the guidance of the New York State Department of Environmental Conservation (NYSDEC) (Site #932054). The project consists of the removal of impacted soil waste from the Site and restoration of the disturbed portions of the Site to comparable pre-excavation conditions. The work activities include access road construction, installation of fencing and sheet piles, sampling, excavation, dewatering and disposal activities. The impacted soil waste will be disposed of at an approved off-site facility. The impacted areas will be restored by removing stone access roads and sheet piles, backfilling with fill/soil meeting NYSDEC DER-10 requirements, and seeding with a native grass seed mixture. The proposed activities will be conducted under an Army Corps of Engineers NWP-38, which requires coordination with USFWS and NYSDEC for potential conflicts with threatened and/or endangered species.

The Site is comprised of the former Nash Road Landfill which was operated by the Niagara Sanitation Company between 1964 and 1968 for disposal of municipal and industrial wastes. The Site is a rectangular-shaped property (historically disturbed) encompassing approximately 20 acres and is wooded with trees (eastern cottonwood, *Populus deltoides*) and heavy brush and contains areas of seasonally-influenced ponded water. Current access to the Site is not







August 6, 2014

Reference No. 085121

- 2 -

provided by any immediately identifiable means; however, historic access to the Site for disposal activities occurred along a haul road that was constructed from Nash Road, located west of the Site. The Site is bordered to the north by the Holy Infant Shrine, to the east by a cemetery and a property that contains a motel and livery service, to the south by utility right-of-ways (overhead electric and underground natural gas and brine pipelines) and residences, and to the west by undeveloped land and Nash Road.

CRA reviewed the U.S. Fish and Wildlife Service's Information, Planning and Consultation system (IPaC) for potential threatened and endangered species in the vicinity of the Project Site. The IPaC review (attached) identified the northern long-eared bat (*Myotis septentrionalis*), proposed endangered species within the vicinity of the Site. While the northern long-eared bat was identified within the vicinity of the Site, the IPaC review did not identify any critical habitat for the northern long-eared bat within the Site. The Project is not anticipated to impact the population of northern long-eared bat or the habitat of migratory birds due to the historically disturbed nature of the Site. CRA also reviewed the NYSDEC Environmental Resource Mapper for threatened and endangered species within the Site. This program did not identify any threatened and endangered species within the Site.

We look forward to your review and response. If you have any questions or require additional information, please contact me at (610) 321-1800 ext. 15 or <u>candes@craworld.com</u>.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

motor & Cunde

Christopher S. Andes Ecologist

CSA/cjm/1

Encl.

cc: Dennis Hoyt, CRA



85121-00(002)GN-NI001 AUG 4/2014



85121-00(002)GN-NI002 AUG 4/2014


Trust Resources List

This resource list is to be used for planning purposes only — it is not an official species list.

Endangered Species Act species list information for your project is available online and listed below for the following FWS Field Offices:

New York Ecological Services Field Office 3817 LUKER ROAD CORTLAND, NY 13045 (607) 753-9334 http://www.fws.gov/northeast/nyfo/es/section7.htm

Project Name:

Nash Road



Trust Resources List

Project Location Map:



Project Counties:

Niagara, NY

Geographic coordinates (Open Geospatial Consortium Well-Known Text, NAD83):

MULTIPOLYGON (((-78.8657871 43.0681119, -78.8657667 43.0681903, -78.8657881 43.068253, -78.8568403 43.0682843, -78.8568403 43.0696951, -78.85448 43.0696951, -78.8544156 43.0681895, -78.8657871 43.0681119)))

Project Type:

Superfund Site Remediation



Trust Resources List

Endangered Species Act Species List (<u>USFWS Endangered Species Program</u>).

There are a total of 1 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fishes may appear on the species list because a project could cause downstream effects on the species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section below for critical habitat that lies within your project area. Please contact the designated FWS office if you have questions.

Species that should be considered in an effects analysis for your project:

Mammals	Status		Has Critical Habitat	Contact
northern long-eared Bat (<i>Myotis septentrionalis</i>) Population:	Proposed Endangered	<u>species</u> <u>info</u>		New York Ecological Services Field Office

Critical habitats within your project area:

There are no critical habitats within your project area.

FWS National Wildlife Refuges (<u>USFWS National Wildlife Refuges Program</u>).

There are no refuges found within the vicinity of your project.

FWS Migratory Birds (USFWS Migratory Bird Program).

The protection of birds is regulated by the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA). Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. For more information regarding these Acts see http://www.fws.gov/migratorybirds/RegulationsandPolicies.html.

All project proponents are responsible for complying with the appropriate regulations protecting birds when planning and developing a project. To meet these conservation obligations, proponents should identify potential or existing project-related impacts to migratory birds and their habitat and develop and implement conservation measures that avoid, minimize, or compensate for these impacts. The Service's Birds of Conservation Concern (2008) report identifies species, subspecies, and populations of all migratory nongame birds that, without





Trust Resources List

additional conservation actions, are likely to become listed under the Endangered Species Act as amended (16 U.S.C 1531 et seq.).

For information about Birds of Conservation Concern, go to <u>http://www.fws.gov/migratorybirds/CurrentBirdIssues/Management/BCC.html</u>.

Migratory birds of concern that may be affected by your project:

There are 10 birds on your Migratory birds of concern list. The Division of Migratory Bird Management is in the process of populating migratory bird data with an estimated completion date of August 1, 2014; therefore, the list below may not include all the migratory birds of concern in your project area at this time. While this information is being populated, please contact the Field Office for information about migratory birds in your project area.

Species Name	Bird of Conservation Concern (BCC)	Species Profile	Seasonal Occurrence in Project Area
American bittern (<i>Botaurus</i> <i>lentiginosus</i>)	Yes	species info	Breeding
Bald eagle (Haliaeetus leucocephalus)	Yes	species info	Year-round
Black tern (Chlidonias niger)	Yes	species info	Breeding
Black-crowned Night-Heron (Nycticorax nycticorax)	Yes	species info	Breeding
Canada Warbler (Wilsonia canadensis)	Yes	species info	Breeding
cerulean warbler (Dendroica cerulea)	Yes	species info	Breeding
Common tern (Sterna hirundo)	Yes	species info	Breeding
Golden-Winged Warbler (Vermivora chrysoptera)	Yes	species info	Breeding
Least Bittern (Ixobrychus exilis)	Yes	species info	Breeding
Wood Thrush (Hylocichla mustelina)	Yes	species info	Breeding

NWI Wetlands (<u>USFWS National Wetlands Inventory</u>).

The U.S. Fish and Wildlife Service is the principal Federal agency that provides information on the extent and status of wetlands in the U.S., via the National Wetlands Inventory Program (NWI). In addition to impacts to



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wetlands within your immediate project area, wetlands outside of your project area may need to be considered in any evaluation of project impacts, due to the hydrologic nature of wetlands (for example, project activities may affect local hydrology within, and outside of, your immediate project area). It may be helpful to refer to the USFWS National Wetland Inventory website. The designated FWS office can also assist you. Impacts to wetlands and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes. Project Proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate <u>U.S. Army Corps of Engineers District</u>.

Data Limitations, Exclusions and Precautions

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery and/or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Exclusions - Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Precautions - Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

The following wetland types intersect your project area in one or more locations:



Trust Resources List

Wetland Types	NWI Classification Code	Total Acres
Freshwater Emergent Wetland	PEM1Bd	3.4389
Freshwater Forested/Shrub Wetland	PSS1Ad	0.5456
Freshwater Forested/Shrub Wetland	PFO1Bds	6.5533
Freshwater Pond	PUBFx	0.3866
Freshwater Pond	PUBHx	0.0959



410 Eagleview Boulevard, Suite 110 Exton, Pennsylvania 19341 Telephone: (610) 321-1800 Fax: (610) 321-2763 www.CRAworld.com

August 6, 2014

Reference No. 085121

New York State Department of Environmental Conservation The Division of Fish, Wildlife and Marine Resources NY Natural Heritage Program 625 Broadway, 5th Floor Albany, NY 12233-4757

Dear Sir or Madame:

Re: Request for Location and Identity of Significant Habitats Natural Heritage Program Data Former Nash Road Landfill NYSDEC Site #932054 <u>Town of Wheatfield, Niagara County, New York</u>

Conestoga-Rovers & Associates, Inc. (CRA) is requesting a review of the NYSDEC-DFWMR Natural Heritage Program database to determine if New York State Significant Habitats are located on or within a 1-mile radius of the former Nash Road Landfill (Site) located on Nash Road in the Town of Wheatfield, Niagara County, New York. The enclosed 7.5-minute USGS topographic quadrangle map (Tonawanda West and Tonawanda East, NY) and aerial location map shows the location of the Site.

This is a request for information regarding whether rare species and/or significant habitats and natural communities (including habitats supporting threatened, endangered, or rare species, or species of special concern; regulated wetlands; wild, scenic and recreational rivers; significant coastal zones; streams and lakes) exist on or near the Site. CRA reviewed the NYSDEC Environmental Resource Mapper for threatened and endangered species within the Site. This program did not identify any threatened and endangered species within the Site.

The Site is comprised of the former Nash Road Landfill which was operated by the Niagara Sanitation Company between 1964 and 1968 for disposal of municipal and industrial wastes. The Site is a rectangular-shaped property (historically disturbed) encompassing approximately 20 acres and is wooded with trees (eastern cottonwood, *Populus deltoides*) and heavy brush and contains areas of seasonally-influenced ponded water. Current access to the Site is not provided by any immediately identifiable means; however, historic access to the Site for disposal activities occurred along a haul road that was constructed from Nash Road, located







August 6, 2014

Reference No. 085121

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west of the Site. The Site is bordered to the north by the Holy Infant Shrine, to the east by a cemetery and a property that contains a motel and livery service, to the south by utility right-of-ways (overhead electric and underground natural gas and brine pipelines) and residences, and to the west by undeveloped land and Nash Road.

The Site is currently undergoing site remediation under the guidance of the New York State Department of Environmental Conservation (NYSDEC) (Site #932054). The project consists of the removal of impacted soil waste from the Site and restoration of the disturbed portions of the Site to comparable pre-excavation conditions. The work activities include access road construction, installation of fencing and sheet piles, sampling, excavation, dewatering and disposal activities. The impacted soil waste will be disposed of at an approved facility. The impacted areas will be restored by removing stone access roads and sheet piles, backfilling with fill/soil meeting NYSDEC DER-10 requirements, and seeding with a native grass seed mixture. The proposed activities will be conducted under an Army Corps of Engineers NWP-38, which requires coordination with USFWS and NYSDEC for potential conflicts with threatened and/or endangered species.

We look forward to your review and response. If you have any questions or require additional information, please contact me at (610) 321-1800 ext. 15 or <u>candes@craworld.com</u>.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Anotor & Curde

Christopher S. Andes Ecologist

CSA/cjm/1

Encl.

cc: Dennis Hoyt, CRA



85121-00(002)GN-NI001 AUG 4/2014



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ATTACHMENT H

COLOR PHOTOGRAPHS

Former Nash Road Landfill Interim Remedial Action Work Plan Town of Wheatfield, Niagara County, New York



1. Looking south at forested wetlands located in the southwestern corner of the Study Area.



2. Looking north of the forested wetlands located in the central portion of the Study Area.



3. Looking west at forested wetland and drainage feature along the northern portion of the Study Area.



4. Looking south at an emergent wetland located in the northern portion of the Study Area adjacent to DP-101.



5. Looking west at an emergent wetland located in the northern portion of the Study Area adjacent to DP-101.



6. Looking south at forested wetlands and dirt trail located in the southwestern corner of the Study Area.



7. Looking north of typical uplands found northwest of the WB line.



8. Looking southwest of forested wetlands adjacent to the overhead power line easement located south of the Study Area.



9. Looking southwest of forested wetlands adjacent to the gas easement located north of the Study Area.



10. Looking east of upland area (WD line) within the Study Area. The upland area appears to be associated with a former access road to the Site.



11. Looking east of upland area (WE line) within the Study Area. The upland area appears to be associated with a former access road to the Site.



12. Looking northeast of forested/emergent wetlands adjacent to a gas line transfer station.

Former Nash Road Landfill Interim Remedial Action Work Plan Town of Wheatfield, Niagara County, New York



13. Looking southwest of emergent wetlands within the overhead power line easement located along the southern Site boundary.



14. Looking northwest at a road side swale adjacent to Nash Road. The swale connects to the forested/emergent wetlands located within the Study Area.



15. Looking south at a road side swale and culvert pipe adjacent to Nash Road. The swale connects to the forested/emergent wetlands located within the Study Area. The culvert pipe flows underneath Nash Road and connects to an off-site drainage ditch.



16. Looking west of the off-site drainage ditch along Nash Road.

ATTACHMENT I

PERMITTING PLANS





⁸⁵¹²¹⁻⁰⁰⁽PERM001)GN-NI002 AUG 15/2014



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Site Restoration Activities

- 1. Site Backfill of excavation area with soil material from an approved source
- 2. Removal of sheet pile cutoff walls
- 3. Removal of vehicle decontamination area materials
- 4. Management and removal of non impacted access road and grading materials
- 5. Removal of fencing and sediment/erosion controls
- 6. Reestablishment of pre construction grades and elevations
- 7. Reestablishment of vegetation (grass)

From Ernst Seeds

ERNMX # ERNMX-126 Cost Per Pound \$23.51 Mix Type Storm Water Management Facility Sites Ernst seed mixture (20 lbs per acre) to be mixed with perennial rye grass (1 lb per acre)

Species List

25% Redtop Panicgrass, PA Ecotype (Panicum rigidulum (P. stipitatum), PA Ecotype)
16% Virginia Wildrye, PA Ecotype (Elymus virginicus, PA Ecotype)
16% Alkaligrass, 'Fults' (Puccinellia distans, 'Fults')
15% Fowl Bluegrass (Poa palustris)
10% Creeping Bentgrass (Agrostis stolonifera)
10% Ticklegrass (Rough Bentgrass), PA Ecotype (Agrostis scabra, PA Ecotype)
5% Soft Rush (Juncus effusus)
2% Autumn Bentgrass, PA Ecotype (Agrostis perennans, PA Ecotype)
1% Path Rush, PA Ecotype (Juncus tenuis, PA Ecotype)
Total: 100%



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