

EXCAVATION AND RESTORATION PLAN

HONEYWELL INTERNATIONAL, INC. SOIL BORROW PIT CAMILLUS, NEW YORK

Prepared for:

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EXCAVATION AND RESTORATION PLAN HONEYWELL INTERNATIONAL, INC. SOIL BORROW PIT CAMILLUS, NEW YORK

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1.0 INTRODUCTION

The following report summarizes the excavation and restoration plans for the development and operation of a soil borrow pit, located on Honeywell International, Inc. (Honeywell) property in the Town of Camillus, Onondaga County, New York. Included with this report are Existing Site Conditions, Final Grading Plan, and Final Grade Profiles illustrating the limits of the excavation.

This report was prepared by Spectra Environmental Group, Inc. in April 2015, with supporting information provided by Parsons. It was revised in August 2015 to incorporate additional information requested by the NYSDEC.

The site has historically been used as a borrow pit and currently has some ongoing active excavation associated with the adjacent Town of Camillus' C&D Landfill.

1.1 PROJECT DESCRIPTION

Honeywell International, Inc. is actively implementing their NYSDEC- and USEPA–approved Onondaga Lake remediation plan. The actions outlined in the plan consist of a combination of dredging and capping with placement of dredged material from Onondaga Lake in the Sediment Consolidation Area (SCA) located within a Honeywell-owned inactive wastebed. It is proposed, as part of the SCA cover phase of the project, that material extracted from the soil borrow pit be used for the closure of the SCA. In addition, it is proposed that material extracted from the soil borrow pit also be used for closure of another Onondaga Lake site, the Linden Chemicals and Plastics (LCP) site.

The proposed Soil Borrow Pit is on Honeywell-owned property south of the SCA, in an area which has historically been used as a borrow pit. The existing Soil Borrow Pit is largely stripped of vegetation and has never undergone restoration to prior conditions. Upon completion of the project, the borrow pit will be restored and fully vegetated, which will result in an improvement over existing conditions.

2.0 EXCAVATION PLAN

2.1 SITE LOCATION AND HISTORY

This report is an Excavation and Restoration Plan for a soil borrow pit located on Honeywell International, Inc. property, located in the Town of Camillus, Onondaga County, New York. The Soil Borrow Pit is located along Warners Road, south of Ninemile Creek, west of the Town of Camillus' C&D Landfill. The site currently consists of mostly disturbed land from previous excavation activities with some sparsely vegetated areas, unimproved internal access roads, as well as ongoing active excavations, which support the nearby landfill. The intent for the Soil Borrow Pit is to be an active excavation area to support Onondaga Lake SCA and LCP site closure activities. In addition, the adjacent Town of Camillus C&D Landfill plans to excavate small quantities of material (less than 2,000 cy) from the Soil Borrow Pit to support landfill operations. Excavation activity in support of the Camillus C&D Landfill will be concurrent and conclude with Honeywell's excavation of the borrow pit.

Excavated material from the borrow pit will be transported from the pit to the adjacent SCA and LCP sites and the Camillus C&D Landfill via internal haul roads. Material will not be transported on any public roadways. All of the unconsolidated fill material excavated from the borrow pit will be used exclusively for the project. Excavation activities are anticipated to extend into the winter of 2016. Test pit analyses used to estimate the soil depth over bedrock within the limits of the Soil Borrow Pit indicate that approximately 500,000 cubic yards of material is available for this project.

Acreage Summary	
Total Acreage Owned / Controlled by Honeywell	193 +/- acres
Excavation Area / Affected Area	35 +/- acres
Reclaimed Areas	0 acres
Total Proposed Excavation Area	35 +/- acres

The affected area proposed in this plan is as follows:

Operations at the site will entail the extraction of material beginning in the eastern portion of the site and moving west. The extracted soil material, which has been classified as mostly clay with some sand and gravel may require processing using a portable screener on-site for transport to the SCA.

2.2 Environmental Setting

2.2.1 Adjacent Land Use Features

The land use in the immediate vicinity of the Soil Borrow Pit consists of woodlands, suburban residential, inactive wastebeds, and a landfill.

2.2.2 Man-made Features

The Soil Borrow Pit has been historically mined approximately 10 to 30 feet from its original existing topography. Man-made features include disturbed areas created during previous mining activity, such as internal access roads and stripping areas.

The overhead utility line at the south edge of the Soil Borrow Pit is the Marcellus-Solvay Electric Transmission Line owned by National Grid (formerly the Niagara Mohawk Power Corporation (NMPC)). The transmission line is located at the approximate center of a 50-foot wide easement granted to NMPC in 1978. Five of the 14 utility poles carrying the transmission line across Honeywell's property are located within the Soil Borrow Pit.

National Grid was contacted, visited the site on April 14, 2015, and is currently reviewing potential excavation around the utility poles. No excavation or associated mining and reclamation activity within 25 feet of National Grid's easement will be conducted until approval has been granted by an authorized National Grid representative. Any such approval shall be provided to NYSDEC once obtained.

2.2.3 Wetlands

There have been no identified jurisdictional wetlands within the Soil Borrow Pit. Observed vegetation consists primarily of early successional grasses and forbs.

2.2.4 Water Resources

No streams, lakes, or ponds have been identified in the Soil Borrow Pit. The following NYSDEC classified waters exist in proximity to the project:

- Onondaga Lake is a Class C water body within a 0.25-mile radius of the mouth of Ninemile Creek. The remainder of the Lake, generally the northwestern portion, is considered a Class B water body.
- Ninemile Creek is also classified as Class C within the vicinity of the borrow pit. According to the NYSDEC, the best usage of Class C water bodies is fishing with suitability for primary and secondary contact recreation.

2.2.5 Vegetation

Vegetation within the Soil Borrow Pit site varies. In the excavation area, vegetation has primarily been removed, but where present, vegetation is dominated by grasses and forbs. The adjacent areas are mostly wooded. Excavation is proposed only within the previously disturbed areas.

2.2.6 Wildlife

The Soil Borrow Pit may be habitat for common small animals such as squirrels, rabbits, woodchucks and other rodent species. Larger game animals such as deer may feed within the open areas, but seek refuge in the wooded areas. The Federal and State endangered species units had no records of known rare, threatened, endangered or special concern species within the Soil Borrow Pit.

2.2.7 Cultural Resources

A Phase 1A Cultural Resource Survey was performed by Pratt and Pratt Archaeological Consultants, Inc. of Cazenovia, NY in March 2003 for the associated Onondaga Lake remediation activities occurring north of the Soil Borrow Pit (*Phase 1A Cultural Resources Survey for the Onondaga Lake LCP Bridge Street Site and Related Wastebeds* (Pratt & Pratt, August 20, 2003 Revision)). The survey included the Soil Borrow Pit and did not identify any National Register, prehistoric or historic sites within the Soil Borrow Pit.

In order to specifically address cultural resources within the Soil Borrow Pit, a site walkover was conducted by SUNY Binghamton's Public Archaeological Facility (PAF), on May 21, 2015. The walkover revealed that approximately 30 acres of the borrow pit have been previously disturbed with at least 3 to 10 feet of soil of removed. Archaeological testing of these disturbed areas is not required. A Phase 1B archaeological survey will be conducted by PAF on the remaining 5 acres of the Soil Borrow Pit which appear to have intact soils; these areas will not be disturbed until the survey is completed.

2.3 DESCRIPTION OF EXCAVATION METHOD

2.3.1 Excavation Method

The method of material extraction will be consistent with standard industry practice. The material will be excavated by excavators and bulldozers and loaded into haul trucks for transport to the SCA or the on-site mobile screener, if necessary. Excavation will begin in the eastern portion of the Soil Borrow Pit and continue in a westerly direction. The screen plant, if and when needed, will move concurrently with the progression of mining throughout the Soil Borrow Pit.

The expected maximum depth of excavation is approximately 25 ft., while the average expected depth of excavation across the entire pit is approximately 8 ft. The floor of the pit will be graded to the north into Wastebed 15. Setbacks and slope cuts will be in accordance with the requirements of 6NYCRR Section 422.2. In general, setbacks from the property line and easements will be a distance of 25 ft. plus one and one-half times the height of the mine face in unconsolidated material, unless approved. Slope cuts along easements and the perimeter of the Soil Borrow Pit will not exceed a 1V:1.5H slope, unless otherwise approved.

2.3.1.1 Excavation Equipment

Standard industry equipment will be used to strip, excavate, and haul materials from bank faces. These include: bulldozers, scrapers, excavators, front-end wheel loaders, and haul trucks.

2.3.1.2 Roadways

Two existing access roads enter the Soil Borrow Pit, each located at the east and west ends as shown on Sheets 1 and 2, for both personal vehicles and construction equipment. Access into the Camillus C&D landfill is via Belle Isle Rd to the east. There will be no additional access points into the borrow pit. Internal haul routes are already established and may be adjusted, as is the current industry practice, to access active excavation areas, when necessary. After excavation activities cease, some internal haul roads will be systematically "mined-out" or reclaimed as they will no longer be required to access portions of the site. See Section 2.3.1.6 for description of haul truck traffic pattern and routes.

2.3.1.3 Disposal of Waste Materials

Waste generated from stripping of surface vegetation will be stored and/or stockpiled in berms along the northern edge of the Soil Borrow Pit. Waste generated that is suitable for use in the reclamation of the area will be used as such (i.e., surface grading, etc.). No waste material will leave the site during excavation. All material stockpiles will be used on the remediation project site or utilized in the reclamation of the pit.

Topsoil depth in the previously undisturbed areas is approximately 3-12". Topsoil stockpiles will be stored within the limits of the Soil Borrow Pit. No mining activity, including stockpiling activities, shall occur within 25 feet of any property line, easement, or right-of-way, unless approved. Material stockpiles to be disposed of during reclamation will be temporarily treated to prevent them from becoming unstable, hazardous, a source of pollution of the environment, or damaging to other property. Such treatment may consist of stabilization by stockpiling, grading, natural or artificial covering, screening, seeding or any other effective method of achieving required results.

2.3.1.4 Traffic

No traffic impacts will occur as all material transport and use of haul trucks will be strictly limited to internal, private access roads owned or controlled by Honeywell, and no such trucks shall use public roads in conjunction with this project.

2.3.1.5 Hours of Operation

It is anticipated that the hours of operation of the Soil Borrow Pit will be Monday through Friday, 7:00 am - 5:30 pm, with the occasional Saturday. This schedule may vary based upon material demands and weather conditions. Town of Camillus C&D Landfill operating hours are: Winter (January-April and November-December) Monday through Friday, 7:30 am - 2:30 pm; Summer (May-October) Monday through Friday, 7:00 am - 4:00 pm, and Saturday 7:30 am - 11:30 am. The Camillus C&D Landfill is closed holidays and holiday weekends.

Prior notification will be given to NYSDEC when operations of the Soil Borrow Pit are anticipated outside of the proposed hours.

2.3.1.6 Site Facilities

Processing Plant and Other Facilities

The only processing which may occur at the Soil Borrow Pit is the portable screening operation, which may or may not be necessary based on future material testing. The screening process will be dependent upon the material extracted and if it is approved to be used as is or if screening is required. The screen plant, if and when necessary, will move concurrently with the progression of mining throughout the Soil Borrow Pit. No buildings or other infrastructure will be present at the site.

A 1,000 gallon fuel tank is planned to support activities within the borrow pit. This quantity does not require a Petroleum Bulk Storage (PBS) Registration or a Spill Prevention Control and Countermeasures (SPCC) Plan. However, the tank to be selected will be a prefabricated above ground storage tank outfitted with a secondary containment structure capable of containing 100 percent of the capacity of the tank and a shed roof to prevent water from entering the secondary containment, if necessary.

The Onondaga Lake 2010 Construction Community Health and Safety Plan prepared by Parsons outlines in detail the management practices implemented by Honeywell to reduce the risk of spills. See Attachment A, Water Treatment Plant Preloading and Sediment Consolidation Area 2010 Construction Community Health and Safety Plan, for details regarding spill response and spill reporting procedures.

2.4 ENVIRONMENTAL COMPLIANCE AND POTENTIAL ENVIRONMENTAL IMPACTS

A Stormwater Pollution Prevention Plan (SWPPP) was prepared by O'Brien & Gere in March 2015 for Honeywell's Onondaga Lake remediation activities, which includes the Soil Borrow Pit. Coverage under the SPDES General Permit for Stormwater Discharges from Construction Activity (Permit No. GP-0-15-002) has been obtained in conjunction with the approval of the SWPPP. All runoff is to be contained within the site and the contiguous property, as outlined by the SWPPP.

Additionally, Honeywell has undertaken a number of significant environmental initiatives to assure compliance with the State's environmental laws, and has complied with all applicable laws and regulations, including the State Environmental Quality Review Act (SEQR) and the State Historic Preservation and Protection Act (SHPPA), for areas in the vicinity of and within Honeywell's Onondaga Lake remediation project area, including the adjacent Soil Borrow Pit.

2.5 ASSESSMENT AND MITIGATION OF POTENTIAL ENVIRONMENTAL IMPACTS

2.5.1 Potential Impacts to Wetlands

As there are no identified jurisdictional wetlands on-site or in the vicinity of excavation activities associated with the Soil Borrow Pit, no impacts to wetlands are anticipated.

2.5.2 Potential Impacts to Water Resources

Based on April 2012 observations, the groundwater elevation is approximately 30 ft. deeper than the lowest expected final grade elevation. No excavation will occur below the water table.

Additionally, there are no water bodies at the Soil Borrow Pit site or adjacent to the site. Stormwater runoff before, during, and after excavation flows from south to north and onto Wastebed 15, where it evapotranspirates or infiltrates into Wastebed 15. This is consistent with the approved SWPPP.

2.5.3 Potential Impacts to Vegetation and Wildlife

Excavation and associated activities will only occur within the previously disturbed areas of the site. The proposed reclamation measures will ensure that areas are not left exposed and subject to erosion from wind and water. As discussed above, there are no unique habitats within the proposed excavation area. No adverse impacts to wildlife are expected. Final reclamation of the borrow pit will provide a stable vegetative cover that could eventually provide early successional habitat.

2.5.4 Potential Impacts to Air Resources

There will be no adverse impacts to the local or regional air quality as a result of the operation of the Soil Borrow Pit. Dust monitoring at the Soil Borrow Pit will be consistent with dust monitoring taking place at the SCA. Honeywell has a Community Air Monitoring Plan (CAMP) in-place for the adjacent SCA and follows strict protocol with regard to air monitoring. Air monitoring results are publicly available on Honeywell's website.

To the extent practicable, perimeter vegetation at the borrow pit site will be maintained to trap airborne dust, preventing it from leaving the property.

Dust particles generated from internal transportation and potential material processing will be retained on the site. The size of dust particles generated by these sources are large compared with other sources, and as a result, any dust generated will quickly settle to the ground and remain on site.

Additionally, the following industry-standard dust suppression techniques will be employed where appropriate:

- 1. All haulageways and access roads will be sprayed with a standard water spray dust suppression system on an as-needed basis;
- 2. Overburden stripping and clearing and grubbing is carefully controlled to limit the disturbance and exposure of soil;
- 3. Trees and other existing natural vegetation are left in place wherever possible, especially around the site perimeter; and
- 4. Topsoil and overburden berms and stockpiles will be stabilized in accordance with approved SWPPP to prevent wind erosion. If stabilized by seeding, the seed mix shall be oats (*Avena sativa*) and applied at 40 pounds per acre.

2.5.5 Potential Noise Impacts

Noise generated during excavation activity originates from the use of equipment to remove material from the active bank faces, haul trucks transporting materials, and the processing plant. Potential noise impacts from the operation of the Soil Borrow Pit are from the equipment that will excavate and load the material into haul trucks, as well as the haul trucks as they transport material to and from the excavation area. Noise levels are not to exceed 65 decibels (dBa) at Honeywell's site perimeter fence, while 55 dBa is not to be exceeded at any residential receptor adjacent to the site. An investigative level of 60dBa at the site perimeter fence has been established during which noise level readings will be taken moving outward from the site

perimeter fence towards the nearest residential receptor to ensure that 55 dBa is not exceeded at the residential receptor. As all activities will remain internal to the site, it is not anticipated that any generated noise levels would exceed the NYSDEC - guidance ambient noise level in a non-industrial setting of above 65 dBa at the property line.

As outlined in their Onondaga Lake 2010 Construction Community Health and Safety Plan prepared by Parsons, noise monitoring will be conducted to demonstrate that noise from the construction activities including the SCA Borrow Pit fall within the established limits and do not negatively impact the surrounding community. Noise level monitoring will be conducted twice daily, once in the morning and once in the afternoon, at prescribed monitoring locations along the south perimeter of the Soil Borrow Pit when the Soil Borrow Pit is operating.

Numerous measures will also be employed in the excavation plans to minimize noise and reduce impacts off-site:

- 1. All equipment is to be muffled to meet MSHA standards;
- 2. Vegetative cover is retained in all areas outside the excavation and processing operations;
- 3. Hours of operation are restricted to the hours listed in Section 2.3.1.7 *Hours of Operation*, and those times where prior notification to the NYSDEC is provided; and
- 4. Noise attenuation barriers/berms will be installed between operations and the closest residential receptors if efforts to maintain noise levels below 55 dBa at the residences are unsuccessful.

All plant employees and equipment operators are instructed in the operation of equipment to reduce noise. Below is a list of techniques that will be utilized at the site to reduce noise:

- 1. Employees are instructed in the proper operation and maintenance of all equipment;
- 2. Employees are instructed not to "race" the engines of any equipment unnecessarily;
- 3. Employees are instructed to report any operating irregularities in equipment that may increase the level of noise generated by that equipment;
- 4. Vehicle speeds are controlled to reduce engine noise during interior transport of material;
- 5. All plant equipment is properly maintained and secured; and
- 6. Equipment will be shut down/not idled when not actively working.

2.5.6 Potential Drainage and Erosion Impacts

Within the area of excavation, drainage will be directed north to Wastebed 15, internal to Honeywell property, as described by the Water Treatment Plant, Sediment Consolidation Area and Soil Borrow Area SWPPP, prepared by O'Brien & Gere for Honeywell's Onondaga Lake remediation activities. Also, as discussed above, the excavation will remain above the water table. In order to control soil erosion, stripping will be limited to the excavation area.

2.5.7 Potential Visual Impacts

There will be no adverse visual impacts associated with operations at the Soil Borrow Pit. There is substantial vegetation surrounding the excavation area. Distances to any public road or visual receptor also minimize the impact. A wooded hill exists between the southernmost project limit and the subdivision which includes Pegasus Circle. A screening berm up to 200 feet in length will be installed at the southernmost extent of the Soil Borrow Pit as mitigation for the closest residences located on Pegasus Circle.

2.5.8 Potential Traffic Impacts

No traffic impacts will occur, as all material transport and use of haul trucks will be strictly limited to internal, private access roads owned or controlled by Honeywell, and no such trucks shall use public roads in conjunction with this project.

3.0 RECLAMATION PLAN

The Soil Borrow Pit will occupy a previously disturbed site that has historically served as a borrow pit. The previously disturbed area has never been restored to natural conditions, and the site is lacking in significant amounts of vegetation. Upon completion of excavation activities, suitable grades and full vegetative cover will be established, which will be an improvement over existing conditions.

3.1 **RECLAMATION SCHEDULE**

Excavation at the Soil Borrow Pit is anticipated to commence in the spring of 2015. Restoration activities are planned for the spring of 2017. Excavation is planned entirely above the water table and the restoration of a dry borrow pit is presented as follows.

3.2 LAND USE OBJECTIVE

After excavation operations at the pit cease, the borrow pit will be turned into vegetated open space. The restored vegetation areas will provide habitat for a variety of animals and birds. This is an improvement from the current land condition, which is largely unvegetated. The final land-use objective for the reclaimed pit is vegetated open space.

The Final Grading Plan and Final Grade Profiles (Sheets 2 and 3) show the final configuration of the Soil Borrow Pit, including the design slopes.

3.3 DISPOSITION OF MATERIAL

Vegetative debris will remain on-site. All available topsoil and overburden generated onsite will be utilized during reclamation efforts. The topsoil/overburden will be spread across the excavation areas at the borrow pit during reclamation. See Section 3.7 for details regarding revegetation aspect of the Soil Borrow Pit reclamation. Vegetative debris not used in the reclamation of the site will be chipped or buried on-site and any residual organic waste (including stumps, brush, rocks, cobbles, etc.) to be buried will be covered to a minimum compacted depth of 2 ft. as per 6NYCRR Section 422.3 requirements.

Previous mining of the Soil Borrow Pit removed most of the vegetation and topsoil. Honeywell is currently conducting a study to determine the preferred soil substrate to grow native grasses on the SCA final cover and revegetate the Soil Borrow Pit. The study consists of eight 50-foot by 50-foot grids with the top six inches of soil consisting of four soil types (2 grids each):

- 1. Mixture of 80% borrow material, 10% sand and 10% topsoil
- 2. Mixture of 70% borrow material, 20% sand and 10% topsoil
- 3. Mixture of 60% borrow material, 30% sand and 10% topsoil
- 4. 100% 4-inch minus bank run sand and gravel mix

Each soil type was seeded with native grass species and covered with two inches of mulch. The results of the study and the proposed plan to restore the Soil Borrow Pit will be submitted at a later date. Completion of the ongoing study and any proposal for spreading an appropriate cover material including associated soil amendments will be subject to NYSDEC review and acceptance.

3.4 HAULAGEWAYS

Within the excavation area, the haulageways as shown on Sheet 2, Final Grading Plan will be permanently maintained in order to provide access to the National Grid overhead power line..

3.5 DRAINAGE

Stormwater runoff before, during and after excavation will flow south to north and onto Wastebed 15, where it evapotranspirates or infiltrates into Wastebed 15. This is consistent with the approved SWPPP.

3.6 **FINAL SLOPE CONFIGURATION**

The final excavation faces will be graded to a final reclamation slope as shown on the Final Grading Plan and Final Grade Profiles. Final reclamation slopes around the perimeter of the Soil Borrow Pit will be graded at a maximum slope of 1V:1.5H, unless otherwise shown on the Final Grading Plan and Final Grade Profiles. Proposed final floor grades are as shown on Final Grading Plan and Final Grade Profiles. Actual final floor grades may vary from those shown, but will maintain drainage to the north.

Regarding reclamation around the utility poles in the Soil Borrow Pit, National Grid has been contacted, and is currently reviewing potential excavation around the utility poles. No excavation within National Grid's easement will be conducted until approval has been granted and final reclamation around the utility poles will be approved by National Grid.

All slopes will be revegetated as outlined in the following section.

3.7 **Revegetation**

Excavation areas within the Soil Borrow Pit will be graded to final slopes and seeded on an ongoing basis. The Borrow Pit will be restored using a mixture of oats and a Warm Season Borrow Mix as the primary seed treatment, as specified below. To ensure 75% vegetative coverage of the Soil Borrow Pit is completed within 2 years from the completion of mining, any significant areas lacking vegetative growth may be amended and seeded with a secondary seed treatment, which consists of the Cool Season Borrow Mix added to the Warm Season Borrow Mix, as specified below. The Primary Seed Treatment Mix will include *Avena sativa* (oats) and the Warm Season Borrow Mix, a mixture comprising of the following: *Agrostis perennas* (autumn bentgrass); *Agrostis scabra* (ticklegrass); *Panicum amarum* (bitter panicgrass); *Panicum virgatum* (switchgrass); *Schizachyrium scoparium* (little bluestem); *Sorghastrum nutans* (indiangrass) and; *Tridens flavus* (purple top). The Secondary Seed Treatment Mix will consist of the Warm Season Mix and the Cool Season Borrow Mix, a mixture comprising of the following: *Poa palustris* (fowl bluegrass), *Eymus virginicus/Canadensis* (wild ryes), *and Danthonia spicat* (poverty oatgrass) added to the warm season borrow mix at a rate 1 ounce each cool season variety per pound of warm season borrow mix.

Seed	Weight of Pure Live Seed per Acre
Primary Seed Treatment Mix	<u>651bs</u>
Avena sativa (Oats) Warm Season Borrow Mix (see below)	40 lbs 25 lbs
Secondary Seed Treatment Mix	<u>28 lbs</u>
Warm Season Borrow Mix (see below) Cool Season Borrow Mix (see below)	25 lbs 3 lbs

SEED APPLICATION RATES

Warm Season Borrow Mix			
	Ounces per Pound	%	
Agrostis perennans (autumn bentgrass)	2.5	15.6	
Agrostis scabra (ticklegrass)	1.5	9.4	
Panicum amarum (bitter panicgrass)	3.5	21.9	
Panicum virgatum (switchgrass) - 'Blackwell'-OK-NRCS Variety Release	2.0	12.5	
Panicum virgatum (switchgrass) - Long Island-NY Ecotype	2.0	12.5	
Schizachyrium scoparium (little bluestem)	2.0	2.5	
Sorghastrum nutans (indiangrass) - Suffolk CoNY Ecotype	2.0	12.5	
Tridens flavus (purple top)	0.5	3.1	
Total	16.0	100%	

Cool Season Borrow Mix				
	Ounces per Pound	%		
Warm Season Borrow Mix	13.0	81.25		
Poa palustris (fowl bluegrass)	1.0	6.25		
Eymus virginicus/Canadensis (wild ryes)	1.0	6.25		
Danthonia spicat (poverty oatgrass)	1.0	62.5		
Total	16.0	100%		

As stated in Section 3.3, Honeywell is currently conducting a study to determine the preferred soil substrate to grow native grasses on the SCA final cover and to revegetate the Soil Borrow Pit. Pending favorable results of that study, a modification to this MLUP to revegetate the Soil Borrow Pit with native grass may be submitted at a later date.

FIGURE 1 SITE LOCATION MAP



SHEETS

- SHEET 1 EXISTING SITE CONDITIONS
- SHEET 2 FINAL GRADING PLAN
- **SHEET 3** FINAL GRADE PROFILES



í		DATE			
	1	05/18/15	REVISIONS PER PARSONS AND DEC COMMENTS	REW	
	2	06/09/15	REVISIONS PER PARSONS AND DEC COMMENTS	REW	
No.					





LEGEND

Existing GradeProposed Grade







DRN CKD APPR	PROJECT		
REW	PROJ. MGR: FRP	FINAL GRADE PROFILES	
	PROJ. NO.: 14210	Honeywell	International, Inc.
	PREPARED BY:	SOIL BORROW PIT	
	DRAFTED BY: DTS/REW		
	CHECKED BY:	TOWN OF CAMILLUS	ONONDAGA CO., NY
	APPROVED BY:		
	DATUM: MSL		Spectra Environmental Group, Inc.
	CONTOUR INTERVAL = 1 FEET	19 British American Blvd Latham, N.Y. 12110	
	/\ /	DATE: 04/03/15 SCALE:	DWG. NO. 14210R3 PLATE 3 OF 3

ATTACHMENT A

2010 CONSTRUCTION COMMUNITY HEALTH AND SAFETY PLAN

Honeywell

Onondaga Lake

Water Treatment Plant Preloading and Sediment Consolidation Area 2010 Construction

Community Health and Safety Plan



July 2010



COMMUNITY HEALTH AND SAFETY:

Sediment Consolidation Area Construction and Initial Work for the Water Treatment Plant

Comprehensive efforts to protect the public's health and safety are an important part of the work to restore Onondaga Lake. Health and safety plans are reviewed by the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) and are incorporated into every stage of the restoration. These plans include management and monitoring that exceed government requirements and industry standards.

Construction of the sediment consolidation area (SCA) will begin in 2010. The work on the SCA, which will be done in stages, will be described in separate work plans that outline the activities and schedule for each stage of work.

This health and safety plan describes the protective measures that will be taken during the first stage of SCA construction, as well as initial construction activities for the water treatment plant (WTP). These activities will take place in 2010. For construction scheduled for 2011 and 2012, this health and safety plan will be augmented to include information relative to those activities. A separate health and safety plan will be developed for operational activities starting in 2012. These activities will include the removal, transport, drying and storage of lake materials.

Construction activities will occur during the day. The work in 2010 includes placing clean fill material on the footprint of the future water treatment plant area (called "preloading"), clearing trees and shrubs, improving roads leading to the site, bringing in clean fill material for construction of berms, grading, excavating, and surveying. This work, which is scheduled to begin in August 2010, is similar to construction of commercial and infrastructure projects.

Detailed worker health and safety plans will implement measures to prevent injuries and accidents during construction activities.

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Grading is a typical activity associated with many construction projects and is a component of the 2010 work at the SCA. This photo illustrates the grading activities at the Linden Chemicals and Plastics (LCP) site in Geddes. Remediation of the LCP site is now complete.



MANAGEMENT AND MONITORING

Management and monitoring will be implemented for the following aspects of SCA construction:

- Air quality
- Traffic
- Noise
- Spills from vehicles and/or equipment
- Site security



AIR QUALITY

The air monitoring program, which will operate during the entire project, will evaluate air quality at the work zone perimeter (shown as a blue line in the graphic below). Air monitoring results will be publicly available on Honeywell's website, <u>www.onondaga-lake-initiatives.com</u>. The air monitoring program has been specifically developed for this stage of the project and has followed the guidelines established by the NYSDOH's Generic Community Air Monitoring Plan (CAMP) for remediation programs (2000).



Most construction activities will occur on top of the existing ground surface. The work includes delivery and grading of clean fill to build the berms and composite liner system according to the design plans. Measures will be taken to ensure dust does not leave the work area and may include increased use of dust suppression methods such as using a water truck to wet site roadways, application of dust-suppressing road materials onto roadways, or use of fire hoses to wet-down excavations

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or soil placement/grading activities. During these activities, the air will be continuously monitored for particulates (i.e. dust) and volatile organic compounds (VOCs) to ensure that concentrations at the work zone perimeter remain below site-specific action levels.

Ground-intrusive activities, which are expected to be of a limited duration during the SCA construction, will consist of drilling and excavating as outlined below.

- Drilling to remove previously-installed piezometers and inclinometers
- Drilling to install new piezometers and inclinometers
- Shallow trenching to install settlement cells and settlement profilers
- Excavation for SCA sumps

If air monitoring indicates site-specific action levels are exceeded, the work generating the dust or VOCs will be stopped and there will be a reevaluation of the work.

There will be eight fixed monitoring locations. The monitors (see diagram on page 3) will encircle the work zone. All air monitoring results will be reviewed regularly by site personnel and the Agencies to ensure that site-specific action levels are not exceeded. These locations will assess upwind and downwind air conditions and help determine whether the work zone and/or background conditions are having an impact on local air quality. Meteorological monitoring stations located in proximity to the work zone will be used to evaluate daily weather conditions.

Background Air Quality Monitoring

To establish an understanding of background ambient air quality at the work zone area prior to construction activities taking place, two weeks of dust and VOC monitoring will be conducted at the work zone perimeter. This information will help to identify pre-existing sources and locations of any dust and/or VOC generation in this area. In addition, site-specific action levels for this community health and safety plan should be established based on daily upwind/background readings.

Air Monitoring During Construction Activities

Particulate Monitoring

Dust will be monitored to ensure that concentrations at the work zone perimeter remain below site-specific action levels established for this stage of the project.

The NYSDOH has established action levels for particulates at 150 μ g/m³ above background levels. To provide additional assurance, the equipment at the SCA perimeter will be set at a lower site-specific action level (100 μ g/m³ above background levels).

If this lower site-specific action level is exceeded for a 15-minute period, additional dust suppression measures (such as increasing the use of water or reducing equipment speeds) will be implemented. If the

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Air monitors will be located at eight locations along the work zone perimeter. See page 3 for their locations. NYSDOH action level is exceeded, the work generating the dust will be stopped and there will be a re-evaluation of the activities.

The dust monitoring will use real-time monitors capable of measuring dust less than 10 micrometers (PM-10) and capable of integrating PM-10 concentrations over a period of 15 minutes. Equipment will alert technicians immediately if dust exceeds the action level.

VOC monitoring

Air will be monitored continuously to ensure that total VOC concentrations at the work zone perimeter do not exceed site-specific action levels established for this stage of the project.

VOC monitoring equipment will consist of photo-ionization detectors (PIDs) that will measure total VOC concentrations continually during all construction activities. The equipment will log data real time, calculate a 15-minute average, and send alarms, if action levels are reached, to the technician's mobile phone.

The NYSDOH has established action levels for VOCs at 5 parts per million (ppm) above background levels. To provide additional assurance, the equipment will be set at a lower site-specific notification level of 2 ppm. Should the air monitors detect VOC concentrations exceeding the lower level for a 15-minute period, the source of the emissions will be investigated and evaluated.

If VOCs reach an average of 3 ppm for a 15-minute period, measures including covering the excavation or applying foam will be implemented. If a 15-minute average of 5 ppm is reached, work will be stopped until corrective measures are implemented.

Regular air monitoring will be conducted until work is complete. If the last reading indicates that VOC levels are elevated then the source of the emissions will be investigated and evaluated.



Trained observers will use field olfactometers to monitor odors.

Odor Monitoring

Odor monitoring will be performed with a Nasal Ranger field olfactometer by a trained odor observer twice per day at each of the eight monitoring stations to ensure compliance with site-specific action levels established for this stage of the project. Measurements will be collected over a 15- minute period.

If the measured odor unit (OU) averages more than 7 OUs over 15 minutes additional measurements at downwind locations or in the community will be performed. Because there are no federal or New York state standards for odor monitoring, 7 OU will be used because it is the odor monitoring standard for several other states.

If measurements taken in response to requests for community odor monitoring are greater than 7, the source will be investigated, and if caused by the construction activities, control/countermeasures will be implemented. Measures to address VOCs and odors may include fire hoses to wet-down excavations, application of foaming agents, or

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rescheduling of intrusive activities for days with weather conditions less conducive for generating VOCs or odor emissions.

TRAFFIC

The traffic plan designates potential traffic routes for the transport of clean fill material to and from the site. A study was completed as part of the SCA Design that compared the amount of expected SCA construction truck traffic to the total vehicle traffic and heavy vehicle traffic currently traveling on these routes. The SCA construction truck traffic will add less than 5% to the existing total traffic count and is therefore expected to have a minimal impact on the community.

The potential traffic route (with traffic flow directions) is illustrated below. The main entrance to the Wastebed 12 - 15 site will be through the Honeywell gate at Gerelock Road. Once on site the traffic will follow existing on-site gravel roads to and from Wastebed 13. Signs will be posted on the other Wastebed 12 through 15 gates to direct deliveries to the appropriate entrance.





NOISE

Noise monitoring will be conducted to proactively reduce noise emanating from construction equipment and operations in order to reduce the impact on the surrounding community. NYSDEC's "Assessing and Mitigating Noise Impacts" establishes guidance values for ambient noise levels of 55 dBA as being protective of public health and welfare (www.dec.ny.gov/permits/6224.html). The guidance document also notes that the addition of any noise source, in a nonindustrial setting, should not raise the ambient noise level above a maximum of 65 dBA.

Evaluations have been completed to assess the potential noise impacts from construction equipment that will be used for this project. Based on the results of these evaluations, noise levels are not anticipated to exceed 65 dBA at the fence line, and furthermore, are not anticipated to exceed 55 dBA in residential areas around the site.

A sound-level meter will be used at the eight locations along the work zone perimeter to measure noise generated from construction activities at the site—such as from trucks, backhoes, bulldozers, and chainsaws. Measurements will be conducted twice a day to ensure compliance with site-specific action levels established for this stage of the project. If action levels are exceeded, increased monitoring will identify and confirm the cause of the noise. Changes will be made (to existing equipment or operations) and follow-up monitoring will be conducted to ensure compliance. If project noise criteria continue to be exceeded, the associated work will be stopped until the cause of the noise has been addressed.

SPILLS FROM VEHICLES AND/OR EQUIPMENT

Preventing spills from vehicles and construction equipment is necessary at all construction sites. Procedures that will be in place to prevent spills during construction are listed below. In the unlikely event that a spill does occur, site workers will take the appropriate response and reporting actions.

Petroleum-based fuels and oils will be used on the site for operation of heavy equipment. Fuels will be brought onto the site by a fuel tanker and stored on-site in portable storage tanks. On-site fuel storage tanks will have secondary containment and comply with the National Fire Protection Association (NFPA) 30 "Flammable and Combustible Liquids Code" and Occupational Safety and Health Administration (OSHA) 1910.106.

The following are material management practices that will be used to reduce the risk of spills:

- 1. Materials will be stored in a neat, orderly manner in their appropriate containers.
- 2. Products will be kept in their original containers with the original manufacturer's label.

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Fuel tankers will safely transport fuels and oils to the site. This is typical for most construction projects.



A spill response kit will be available at all times at the work site.

- 3. Substances will not be mixed with one another unless recommended by the manufacturer.
- 4. Whenever possible, product will be used up or packages resealed before proper disposal of contents and containers off-site.
- 5. Manufacturers' recommendations for proper use and disposal will be followed.
- 6. Inspection will be made for proper use and disposal of materials during periodic inspections and recorded on an inspection form
- On-site vehicles will be monitored for leaks and receive regular preventative maintenance to reduce the chance of leakage of petroleum products. Petroleum products will be stored in closed containers that are clearly labeled. Used oils will be disposed of properly.
- 8. Materials will be brought on site in quantities that limit or minimize the amount of on-site storage.
- Paint containers will be tightly sealed and properly stored when not required for use. Excess paint, solvents, etc., will not be discharged to the storm sewer facilities but will be properly disposed of according to manufacturer's instructions, or state and local regulations.

Spill Response

A spill response kit will be onsite at all times. Used spill containment and absorbent materials will be properly contained, labeled, and disposed of in accordance with state and local regulations.

Spill Reporting

All reportable petroleum spills and hazardous materials spills within New York State must be reported to DEC hotline (1-800-457-7362) within 2 hours of discovery.

SITE SECURITY

Access to the site will be restricted. The existing 6-foot tall fence that surrounds the area will prevent unauthorized personnel from entering the site. A security firm will also be present at the site to monitor the area.



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