

STORMWATER POLLUTION PREVENTION PLAN

**Water Treatment Plant and
Sediment Consolidation Area**

Honeywell
Town of Camillus
Onondaga County, New York

August 2010

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B E White

Brian E. White, P.E.
Vice President

O'Brien & Gere Engineers, Inc.
August 2010



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1. Regulatory Information

This *Stormwater Pollution Prevention Plan* (SWPPP) discusses and describes actions to be taken as part of the New York State Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activities, Permit No. GP-0-10-001. This SWPPP supports the activities that will be conducted on Wastebed (WB) 12 and 13 in 2010 as part of Honeywell's remediation program for Onondaga Lake.

The Notice of Intent (NOI) for the General Permit for the project is included as Appendix A. Other forms referenced in this SWPPP are also included within their respective appendices. This SWPPP and the NOI have been prepared to meet the substantive requirements of Permit No. GP-0-10-001.

1.1. SWPPP Development

This SWPPP was developed in accordance with Permit No. GP-0-10-001 and accepted engineering practices. It describes the erosion and sediment control practices that will be used to minimize sediment in stormwater discharges during construction activities, offers protective measures to minimize sediment transport, and identifies potential sources of sediment that may affect the quality of stormwater discharges.

1.2. SWPPP Review

The completed NOI has been included in Appendix A. Five business days from the date NYSDEC approves the NOI, stormwater will be authorized to discharge from the construction site. Subsequently, the NYSDEC will issue a NOI Acknowledgement form that will be inserted in Appendix B.

Throughout the project, the SWPPP will be kept current and made available at the site for review by regulatory agencies and Honeywell team. Applicable federal, state and local regulatory agencies that have jurisdiction may choose to review this SWPPP and if necessary may notify Honeywell that the SWPPP requires modification or if certain site conditions do not meet the requirements of the regulations.

1.3. SWPPP Update

Honeywell will amend this SWPPP if there is a change in any of the following project components that has an effect on the potential for discharge of sediment from stormwater runoff associated with construction activities:

- Design
- Construction
- Operation
- Maintenance

Honeywell will update or amend the SWPPP if any of the following conditions occur:

- Field conditions require additional erosion and sediment control measures
- Identification of new contractors that will implement or construct any of the stormwater management and/or erosion and sediment control facilities
- Changed site conditions observed by Honeywell

If the SWPPP needs to be revised based on changed site conditions, Honeywell will be responsible for making revisions to the SWPPP within 14 days of notification. If the changed site conditions are a result of work by Honeywell, it is their responsibility for making revisions to the SWPPP within seven days of notification to Honeywell. All modifications will be reviewed, approved and accepted by Honeywell and NYSDEC prior to implementation.

2. Project Description

Overview

The lake remediation plan, which was selected by the NYSDEC and the United States Environmental Protection Agency (USEPA) and noted in the January 2007 Consent Decree for Onondaga Lake, calls for a combination of dredging and capping – standard environmental cleanup methods that will address the contamination in lake sediments. The sediment dredged from Onondaga Lake will be hydraulically pumped via pipeline to the Sediment Consolidation Area (SCA), which will be located on Wastebed 13 (WB-13). The sediments will be dewatered and the effluent will receive initial treatment at an onsite Water Treatment Plant (WTP) prior to being sent to Metro for final treatment. Existing conditions are provided on Figure 1. The following text describes the overall project that will be performed in stages, commencing in 2010.

SCA

Water and sediments collected during dredging operations will be piped to the SCA. This dredged slurry will be dewatered in the SCA via geotextile tubes. The SCA portion of the project consists of the following components, all of which will be constructed on Honeywell property:

- Slurry processing area, consisting primarily of dredge screens and SCA support facilities SCA with geotextile tubes
- Temporary SCA stormwater management basins
- Office trailer and parking area,
- Material staging areas

Locations of SCA project elements are illustrated in the figures section of this plan.

SCA WTP

The SCA WTP will receive the geotube effluent for initial treatment. The SCA WTP will remove suspended solids. The SCA WTP will use multiple parallel treatment trains to accommodate fluctuations in flow rates and provide operational flexibility. The treatment system will consist of the following major unit processes:

- pH adjustment system
- Metals precipitation
- Total suspended solids (TSS) removal
- Polishing filtration system (multimedia or equivalent)
- VOC and SVOC removal system
- Treated water discharge system
- Chemical storage/feed systems

The SCA WTP consists of the following project elements:

- An approximately 55,000 square foot (sf), 30-foot high, pre-fabricated building to house the treatment train. Reduced water flows captured during winter shutdowns (*e.g.*, precipitation and

passive flows from the SCA) will be treated using a portion of the treatment train which will be enclosed in a heated section of the building.

- Temporary office trailers located adjacent to the pre-fabricated building. These trailers will provide work and meeting spaces for additional on-site staff during the dredging program. A laboratory area is planned within one of the trailers, to facilitate sampling and optimization of treatment plant operations.
- Three chemical bulk storage tanks (with secondary containment) and a tanker truck unloading area. The bulk storage and unloading facilities will likely remain after the dredging program, to serve the indoor treatment process.
- Installation of a 30-inch pipe to convey effluent from the SCA WTP to the proposed equalization basin, which then discharges to Metro for treatment.

Locations of SCA WTP project elements are illustrated on the Contract Drawings in the figures section of this plan. Additional project components, including the lake intake and slurry pipeline to deliver the sediment slurry to the SCA are in the design phase.

In order to meet the schedule specified in the Consent Decree, initial construction activities for the WTP and the SCA will begin in August 2010. This SWPPP was developed in accordance with Permit No. GP-0-10-001 to address stormwater runoff associated with the pre-loading and construction activities for the WTP and SCA that are scheduled for 2010; conceptual construction phasing for the years 2011 through 2016 are also provided:

Temporary Facilities

2010 (see Figure 2)

- 2.3 acre gravel WTP Preload Area on WB-13
- 1 acre gravel WTP/SCA Staging Area on WB-13
- 1 acre gravel SCA Process Preload Area on WB-13
- 0.33 acre gravel Trailer Area on WB-12

2011 (see Figure 3)

- 1.7 acre gravel WTP Process Area on WB-13
- 0.3 acre lined WTP Process Area on WB-13
- 7.7 acre lined Separation Material Management Area on WB-13
- 4.0 acre and 2.3 acre lined temporary SCA Stormwater Basins on WB-13

2012 (see Figure 4)

- 1 acre gravel SCA Staging Area on WB-13

2013 (see Figure 5)

No new temporary facilities constructed; SCA filling operations continue

2014-2016 (see Figure 6)

No new temporary facilities constructed; SCA filling operations continue

Permanent Facilities

2010 (see Figure 2)

- 12.5 acre lined Phase 1A SCA on WB-13

2011 (see Figure 3)

- 12.5 acre lined Phase 1B SCA on WB-13
- 2.3 acre SCA WTP building and parking area

2012 (see Figure 4)

- 24 acre lined Phase 2 SCA on WB-13

2013 (see Figure 5)

No new permanent facilities constructed; SCA filling operations continue

2014-2016 (see Figure 6)

- 21 acre lined Phase 3 SCA on WB-13

2.1. Site Description

The project area has historically been used primarily for the disposal of Solvay waste, a by-product of sodium carbonate (soda ash) production via the Solvay process. Solvay waste is a combination of process residuals, unreacted material, and mineral salts that were deposited as a slurry, dried, and is now approximately 55 feet deep. Wastedbed 13 (WB-13) consists of approximately 163 acres that were used from 1973 to 1985. Wastedbed 12 (WB-12) consists of approximately 129 acres that were used from approximately 1951 to 1972.

The site is covered with a mix of old field and shrubland vegetation, and willow trees have been planted in portions of WB-13 to promote evapotranspiration and for biofuel production¹. Figure 1 shows the existing on-site vegetative cover types.

2.2. Site Location

The proposed project facilities will be located on WB-12 and WB-13 in the Town of Camillus, Onondaga County, New York (see Sheet SP-1). The project area is bordered to the north by Ninemile

¹ The Shrub Willow Sustainable Remedy project was authorized by the NYSDEC under GP-0-08-001 (permit identification number NYR10S027).

Creek and CSX Railroad tracks; to the west by an Onondaga County municipal garage and a former gravel excavation area owned by Honeywell; and to the south and east by Wastebeds 12 and 14.

2.3. Site Owner

Contact information for Honeywell is below.

Owner	Contact
Honeywell International, Inc. 301 Plainfield Road Suite 330 Syracuse, NY 13212	Al J. Labuz Remediation Manager phone: 315-552-9781 fax: 315-552-9780 email: al.labuz@honeywell.com

2.4. Contract Documents

The applicable Contract Documents included in the figures section of this plan include:

- Overall Site Plan
- Grading with existing and proposed contours that indicate drainage patterns and slopes prior to and after grading activities
- Areas of disturbance
- Proposed locations of erosion and sediment control facilities

2.5. Receiving Water

Stormwater at the site infiltrates into the substrate and co-mingles with groundwater or is collected and treated in Honeywell’s site-wide leachate collection and conveyance system (LCCS). The LCCS then discharges to Metro and ultimately to Onondaga Lake that is part of the Seneca Watershed, United States Geological Survey (USGS) Hydrologic Unit 04140201 (<http://cfpub.epa.gov/surf/>). This includes the Nine Mile Creek and Onondaga Lake sub-watersheds.

During construction and operation of the SCA and WTP, stormwater from lined areas that have not received dredged sediments within the project footprint will be managed and discharged to existing SPDES outfall #18. The outfall discharges to Nine Mile Creek which is also part of the Seneca Watershed. A request to modify existing NYSDEC SPDES Permit No. NY 0002275 is included herein as Appendix C.

2.6. Soils

The Soil Survey of Onondaga County (see Appendix D) identifies the wastebed-portion of the site as a mix of gravel pit and made land. The substrate that exists generally consists of a mix of weathered Solvay waste and organic soil (*i.e.*, decomposing vegetative matter), which can be characterized as hydrologic soil group D.

The drainage area associated with existing SPDES outfall #18 consists of the following soil types:

- Wayland silt loam - hydrologic soil group C/D
- Collamer silt loam - hydrologic soil group C

2.7. Resource Protection Areas

No wetlands, streams, lakes, or ponds under the jurisdiction of the NYSDEC or U.S. Army Corps of Engineers have been identified on WB-12 or WB-13. Nine Mile Creek is a NYSDEC Class C stream at the point where existing SPDES outfall #18 enters. There also are no identified drinking water well or septic system setbacks onsite.

3. Project Implementation

3.1. Pre-Construction Requirements

Honeywell will follow the requirements described in Appendix E to minimize erosion and sedimentation during construction activities.

3.2. Project Requirements During Construction

Honeywell will follow the requirements described in Appendix E and the following general construction sequence. Figures 2 through 6 indicate the timing of construction of proposed facilities. These figures also indicate which facilities will be permanent or removed upon completion of construction.

1. Install stabilized construction entrances as shown or as directed.
2. Perform the following site activities:

Proposed Sequencing: SCA- Phase 1A (2010)

- Clear and grub site
- Mow site
- Preload stone for WTP and Process Area (approximately 70,000 cy, approximately 10 ft depth for WTP and approximately 7 ft depth for Process Area)
- Install temporary stormwater management facilities for Staging Area
- Install stone Trailer Area and WTP/SCA Staging Area (approximately 2,500 cy, approximately 12-inch depth)
- Install temporary stormwater management facilities for SCA
- SCA berm construction with structural fill (approximately 26,000 cy). Berm to be constructed in 8-inch lifts with structural fill dropped at point of use. Material stockpiles will not be required.
- Prepare subgrade for liner installation. This will include grading of wastebed material and construction of sump prior to initiation of liner installation.
- Install temporary stormwater management facilities to convey clean runoff to SPDES Outfall #018
- Clay liner installation (approximately 64,000 cy, approximately 12-inch depth)
- Installation of geomembrane and geotextile (approximately 12.5 acres)
- Commence Removal of stone from Preload Areas and place drainage stone in SCA (approximately 45,000 cy, approximately 2 ft depth)
- Construction operation on SCA temporarily suspended

Conceptual Sequencing: SCA- Phase 1B (2011)²

- Mobilize, clear, and mow additional area
- SCA stormwater equalization basin installation
- Pipeline to effluent equalization basin installation
- SCA berm construction with structural fill (approximately 23,000 cy)
- Clay liner installation (approximately 75,000 cy)
- Installation of geomembrane and geotextile (approximately 18.75 acres)
- Gravel placement on SCA (approximately 56,000 cy)

Conceptual Sequencing: SCA- Phase 2 (2012)

- Mobilize, clear and mow additional area
- SCA berm construction with structural fill (approximately 23,000 cy)
- Clay liner installation (approximately 100,000 cy)
- Installation of geomembrane and geotextile (approximately 25 acres)
- Gravel placement on SCA (approximately 56,000 cy)

Conceptual Sequencing: SCA WTP- (2011-2012)

- Rough grade site, cut in access roads, mobilize site/civil subcontractor, drive piles
- Install electrical grounding systems
- Install incoming primary electrical feed, conduit and wiring
- Install underground process piping and underground electric feed
- Install underground storm and water piping systems
- Install foundations and WTP building
- Install WTP building process equipment and piping
- Perform individual system checks, and combined system checks (i.e., commissioning)
- Operate system using water

Conceptual Sequencing: SCA - Phase 3 (2013 through and 2014 if needed)

- Similar activities to SCA Phase 2
4. As areas are completed through these milestones, they will be restored as required in the Contract Documents.
 5. After site activities are complete and the site is stabilized, remove temporary erosion and sediment control facilities.

² Note that the sequencing provided for years 2011 through 2016 are projections and may be altered as the project progresses. Changes will be addressed in future SWPPP updates as needed.

Since the SCA project requires land disturbance in an area larger than five acres during construction, a letter request has been included in Appendix K. This request includes the amount of area intended to be disturbed and reasons why more than five acres need to be disturbed. Once Honeywell receives approval from the NYSDEC, Honeywell will be required to perform the following tasks:

- Conduct at least two site inspections every seven calendar days by a qualified inspector³ (separated by a minimum of two calendar days).
- Provide for temporary or permanent soil stabilization measures in areas where soil disturbance activity has been temporarily or permanently ceased within seven days from the date the soil disturbance activity ceased. Exposed berm surfaces shall be seeded with conservation mix and rye grass seeds.

3.3. Inspection During Construction

General

Honeywell will be responsible for providing a qualified inspector to inspect the proposed erosion and sediment control measures and disturbed areas of the construction site for compliance with the SWPPP. The qualified inspector will evaluate whether site-generated sediment is entering natural surface water bodies located within, or immediately adjacent to, the site boundaries. Digital photographs, with date stamp, will be taken that show the conditions of erosion and sediment control facilities and stormwater management practices that have been identified as needing corrective actions. Additional photographs will be taken after implementation of corrective actions showing the condition of the facilities and practices. These photographs will be attached to the inspection form within seven calendar days of the respective inspection.

These inspections will be completed at least once every seven calendar days. For sites where Honeywell has received authorization from the NYSDEC to disturb greater than five acres of soil at one time, the qualified inspector will conduct at least two site inspections every seven calendar days, with a minimum of two full calendar days between inspections. A typical Inspection Report Form is included in Appendix F.

Prior to construction, Honeywell will identify at least one trained contractor⁴ from their respective companies who will be responsible for implementation of the SWPPP and inspection of the erosion and sediment controls in accordance with the New York State *Standards and Specifications for Erosion and Sediment Control* (NYSDEC 2005). Honeywell will provide for at least one trained contractor on site daily while soil disturbance activities are being performed.

If corrective action is required based on the results of inspection, the contractor will implement the corrective action within one business day and complete it within seven calendar days following the date of the inspection. Additional mitigation measures will be implemented by the contractor if

³ Qualified inspector includes persons knowledgeable in the principles and practices of erosion and sediment controls, such as a licensed professional engineer, certified professional in erosion and sediment control (CPESC), licensed landscape architect or other NYSDEC endorsed professional. It also means someone working under the direct supervision of the licensed professional engineer or licensed landscape architect, provided that person has training in the principles and practices of erosion and sediment control.

⁴ Trained contractor means an employee from a contracting (construction) firm that has received four hours of training that has been endorsed by the NYSDEC (*i.e.*, Soil and Water Conservation District, CPESC, Inc., or other NYSDEC endorsed entity), in proper erosion and sediment control principles no more than two years before the date the general permit was issued. After receiving the initial training, the trained contractor will receive four hours of training every three years. This individual will be responsible for implementation of the SWPPP.

warranted to minimize sediment transport or discharge of sediment laden runoff off-site. Each inspection report will remain on file at the site as part of the SWPPP.

Temporary Construction Shutdown (Winter Conditions)

When soil-disturbing activities have been temporarily suspended (*e.g.*, winter shutdown) and temporary stabilization measures have been applied to disturbed areas, Honeywell may cease the periodic inspections by the trained contractor. However, the qualified inspector must perform a site inspection at least once every 30 calendar days. Honeywell will notify the NYSDEC in writing prior to reducing the inspection frequency. Honeywell will resume inspections by the trained contractor and qualified inspector in accordance with this section as soon as soil disturbance activities resume.

Final Site Inspection

The qualified inspector will perform a final inspection of the site to certify the following:

- Construction is complete and disturbed areas have been stabilized.
- Temporary erosion and sediment control facilities have been removed.
- Permanent stormwater management practices in accordance with the design have been installed and are operational and on-line.

Upon satisfactory completion of the final site inspection, the qualified inspector will sign the appropriate sections of the Notice of Termination (NOT) form included herein as Appendix G.

3.4. Stormwater Controls

Sheet SP-1 of the Contract Drawings illustrate the anticipated locations for erosion and sediment control facilities. Details of these facilities are illustrated on Sheet MD-4. These facilities will be installed and maintained in accordance with the New York State *Standards and Specifications for Erosion and Sediment Control* (NYSDEC 2005).

Honeywell will provide a construction stabilization schedule when construction activities are anticipated to start and be stabilized. This record will become part of this SWPPP within Appendix E.

3.4.1. Erosion and Sediment Controls – Structural Practices

Proposed erosion and sediment control measures were designed in accordance with the latest versions of the following documents:

- NYSDEC *Standards and Specifications for Erosion and Sediment Control* (2005).
- NYSDEC *State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity (Permit No. GP-0-10-001)* (effective date January 29, 2010).

The control measures and best management practices (BMP) noted below will be implemented as required to abate and control potential sediment transport in stormwater discharges from the construction site. Details of the erosion and sediment control facilities are provided on Sheet MD-4.

1. A stabilized construction entrance will be located at each construction entrance and exit location(s). If deemed necessary by the qualified inspector, construction vehicles will be washed down in stabilized areas prior to leaving the site.
2. Staging/laydown areas for vehicles and construction equipment will be located on stabilized portions of the site as indicated on Sheet SP-1 and detailed on Sheet MD-4. If deemed necessary by a trained contractor or qualified inspector, vehicles and equipment will be washed down in stabilized areas prior to exiting site.
3. Temporary stone check dams to be placed in swales to prevent erosion, reduce flow velocities, and promote sedimentation as required. The check dams will be installed, as required, at intervals such that the crest of the downstream dam is at the elevation of the toe of the upstream dam. Maintenance will include inspection, cleaning, and/or replacement of stone, as required.

3.4.2. Stabilization Practices

Honeywell will initiate stabilization measures in accordance with the New York State *Standards and Specifications for Erosion and Sediment Control* (NYSDEC 2005) as soon as practicable. For portions of the site where soil disturbance activities have temporarily or permanently ceased, stabilization measures must be implemented within 14 days of the conclusion of activities or within 7 days if authorized to exceed 5 acres of disturbance at one time. This requirement does not apply if the installation of stabilization measures is precluded by snow cover or frozen ground conditions; however, measures will be implemented as soon as practicable.

3.4.3. Additional Stormwater Controls

Listed below is a description of additional controls and measures that will be implemented at the site to minimize sediment transport.

1. Proper precautions will be taken so materials do not spill onto public thoroughfares (*i.e.*, leaking hydraulic lines, fuel leaks). If materials are dropped onto these areas they will be swept clear or removed as soon as practicable so that they do not enter surface and subsurface drainage systems.
2. Honeywell will provide dust control measures before dust migrates off-site. Measures may include water application or mulching but will not include the use of chemical additives.
3. Solid waste disposal dumpsters and containers will be covered and emptied regularly. Waste will be disposed of properly in accordance with local, State, and/or federal regulations.
4. Portable toilets will be installed and cleaned regularly with their contents properly disposed of. They will be secured in place so they will not be knocked over by construction activities.
5. Building materials will be properly stored and contained on-site.
6. Oil and fuel containers will have appropriate secondary containment.

3.5. Historic and Archaeological Resources

Based on the results of the Phase 1A Cultural Resource Assessment performed by the Public Archaeological Facility of Binghamton University in October 2004, the proposed project will not impact cultural resources. The NYSDEC indicated in its September 12, 2007 letter that “due to disturbances from mining activities, no archaeological testing is recommended for Wastebed 13.” In

addition, the NYSDEC approved the *Cultural Resource Management Report Phase 1B Archaeological Work Plan Addendum for Onondaga Lake Project, Upland and Shoreline Area* on June 15, 2010, thereby agreeing with the recommendation that no additional archaeological testing of WB-12 is required. A copy of the September 12, 2007 letter is included in Appendix H.

3.6. Operations and Maintenance

The following sub-sections describe the minimum requirements for operations and maintenance during and after construction activities.

3.6.1. Construction Period Operations and Maintenance

The procedures that will be used to maintain the effectiveness of the erosion and sediment control measures during construction are described as follows:

1. Inspection of the facilities in accordance with Section 3.3, Inspection during Construction. An inspection form is included within Appendix F, a copy of which will be completed and inserted in Appendix F after each inspection.
2. Cleaning, repairing, and/or replacing silt fences, construction entrances, swales, stormwater basins, and rip-rap aprons as necessary.
3. Removal of accumulated sediment from stormwater management facilities as necessary to maintain proper function.
4. Inspection and/or cleaning of roadways daily, or more frequently if otherwise required by Honeywell or a qualified inspector.
5. Removing debris and litter monthly or more frequently if necessary.
6. Observation of equipment/vehicles within the work area, particularly for identification of vehicles leaking petroleum products that could enter stormwater drainage facilities.

3.6.2. Operation and Maintenance

Honeywell is responsible for operation and maintenance of stormwater and site facilities. These operation and maintenance activities will include the following:

1. Clean or sweep public roadways to remove accumulated soil, if necessary.
2. Inspect the swales and rip-rap aprons annually. Remove and dispose of trees, brush, obstructions, and other foreign objects to prevent interference with proper facility function.
3. Maintain seeded areas and reseed or stabilize as necessary to protect against erosion.
4. Repair sloughing or erosion of embankments.
5. Inspect and clean stormwater facilities as necessary to maintain flow capacity to existing SPDES Outfall #18 at the prescribed peak discharge rates.

3.7. Non-stormwater Discharges

Possible sources of non-stormwater discharges associated with the construction activity that may be combined with stormwater are identified below. Preventive measures identified in this SWPPP will minimize potential impacts to stormwater from these sources.

1. Cleaning water for construction vehicles and equipment and groundwater encountered within excavations will be directed into the SCA WTP or temporary stormwater conveyance piping. Chemicals and detergents are not to be used.
2. Honeywell is responsible for identifying areas on-site for construction vehicle transit (*i.e.*, haul roads, trailers and parking areas, etc.) or equipment staging, which will be visually inspected.
3. Water used for dust control measures will be applied using proper quantities and equipment. No chemical additives will be used.
4. Water main flushings, hydrostatic test water, fire test water, and chlorination test water will not be discharged directly to storm drains. Turbid water will be detained to allow sufficient sedimentation time.
5. Concrete trucks will only be washed out in approved areas. Surplus concrete or drum wash water will not be discharged directly to storm drains.

3.8. Inventory for Pollution Prevention Plan

The materials or substances listed below are expected to be present on-site during construction:

- Concrete and concrete products
- Paints
- Bituminous concrete products
- Wood
- Roofing materials
- Asphalt
- Plastics
- Diesel and gasoline fuels
- Sheet metal
- Insulation
- Water treatment chemicals
- Glass
- Silicone (sealants)
- Steel
- HDPE liner

3.9. Spill Prevention

Honeywell will contact the NYSDEC Spills Hotline (1-800-457-7362) if a spill (*e.g.*, hydraulic fluid, gas or oil) occurs on-site during construction. The following are material management practices that will be used by Honeywell to minimize the risk of spills or other accidental exposure of materials and substances to stormwater runoff during construction.

1. Materials with potential for spillage, stored on-site, will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure.
2. Products will be kept in their original containers with the original manufacturer's label.
3. Substances are not to 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 the Inspection Report Form (Appendix F).
7. On-site vehicles will be monitored for leaks and receive regular preventative maintenance to minimize 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.
9. 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 manufacturers' instructions, or State and local regulations.

3.9.1. Spill Control Practices

In addition to the material management practices discussed in the previous section of this SWPPP, the following practices will be followed by Honeywell for spill prevention and cleanup.

1. Spills of petroleum or other regulated material will be reported to the appropriate state or local government agencies immediately, regardless of size.
2. Manufacturers' recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
3. Materials and equipment necessary for spill cleanup will be kept in designated material storage areas on-site. Equipment and materials will include but not be limited to brooms, dust pans, mops, rags, gloves, goggles, spill control materials, sand, sawdust, and trash containers specifically for this purpose.
4. Spills will be cleaned up immediately after discovery.
5. The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
6. A spill report will be completed and filed in this SWPPP and will include a description of the spill, what caused it, and the corrective actions taken.

3.10. Notice of Termination

Following final stabilization of the project site as defined in Permit No. GP-0-10-001 (*i.e.*, completion of SCA filling and capping, completion of SCA WTP, decommissioning of temporary facilities),

Honeywell will file a SPDES General Permit Notice of Termination (NOT) with the NYSDEC. Individual NOTs will not be submitted after completion of each project stage. A blank copy of the NOT form is included as Appendix G.

3.11. Retention of Records

The following records will be retained by Honeywell at the site and for a period of five years from the date the site is finally stabilized:

- Stormwater Pollution Prevention Plan (including Notice of Intent, and Notice of Intent Acknowledgement letter)
- Contract Documents including Contract Drawings and Technical Specifications
- Inspection Reports
- Contractor Certification(s)
- Correspondence regarding stormwater practices
- The Notice of Termination

4. Stormwater Analyses

Stormwater runoff was calculated using Hydraflow Hydrograph Extension for AutoCAD Civil 3D 2008 software which utilizes U.S. Department of Agriculture Natural Resource Conservation Service (NRCS) TR-55 and TR-20 methodologies to perform the hydraulic analysis for each area and the associated discharges. TR-55 methodology was utilized to estimate the peak runoff volumes based on associated cover and soil conditions. Peak discharge rates and volumes were calculated for existing conditions and for each stage of construction through 2016. These calculations were submitted to the NYSDEC under separate cover.

This Section focuses on stormwater runoff from construction activities proposed for 2010. Reference to future construction activities is made, however, stormwater management strategies for post-2010 construction stages will be addressed in future SWPPP updates as necessary.

Project related construction stormwater runoff will be managed in accordance with the following concepts:

Undisturbed Areas

The majority of the precipitation that falls on the wastebeds infiltrates through the surface and either comingles with groundwater or is collected in the site-wide LCCS. The LCCS discharges to the existing retention ponds, which then discharges to Metro for treatment. Stormwater does not flow off-site via overland flow. Stormwater that falls on the Wastebeds outside the proposed project facilities will continue to infiltrate.

Stormwater that falls on the proposed project facilities will be addressed as described below.

Preload Areas Stormwater and Trailer Area Stormwater

As presented in this SWPPP, two areas will be preloaded as part of 2010 construction activities. The preload will consist of 2-inch to 3-inch drainage stone (material specification included as Appendix J). Site grading and placement of a gravel work platform will occur prior to placement of the preload material. Upon completion of the preload placement, the preload material is expected to remain in place for approximately 3-months prior to removal in 2011. Stormwater falling on the preload areas will continue to infiltrate into Wastebed 13.

A 0.33-acre trailer staging area will be constructed on Wastebed 12. The stormwater from this area will continue to infiltrate into Wastebed 12.

SCA Phase 1A Stormwater

During construction of Phase 1A of the SCA, storm flows will be conveyed to temporary tankage and then discharged to the wet well of the pump station located adjacent to the existing retention ponds. Temporary, above-grade piping will be utilized to convey the stormwater from the work area to the temporary tankage and to the wet well of the pump station. The pump station and existing force main will be used to convey the storm flows to Metro for treatment.

In the event that stormwater runoff exceeds the capacity of the temporary tankage and Metro has requested that flows from the pump station be temporarily suspended the stormwater will be contained within the Phase 1A SCA berms until such time as the stormwater can be discharged to the

pump station wet well and then to Metro for treatment. The berms have sufficient capacity to contain stormwater runoff from a 100-year, 24-hour storm event.

Subsequent to the placement of the LLDPE liner and prior to the commencement of dredge activities, storm flows collected in the lined SCA Phase 1A will be discharged to Ninemile Creek via SPDES Outfall #018. The stormwater will be conveyed to Outfall #018 via temporary above-grade piping and the discharge will be directed into the existing culvert to minimize the potential for erosion of existing swales and grassed areas. A copy of the request to modify existing NYSDEC SPDES Permit No. NY 0002275 is included herein as Appendix C. The discharge rates to Outfall #018 shall not exceed those established in Section 4.1 of this SWPPP.

Staging Area Stormwater

A 1-acre SCA/WTP Staging area will be constructed to facilitate the temporary storage of material and equipment. The staging area will be constructed of approximately 6-inches to 12-inches of stone. The staging area will be constructed with berms of sufficient height to contain a 100-year, 24-hour storm event (to be verified by field survey).

Temporary tankage will be provided to manage stormwater runoff. Temporary above-grade piping will be utilized to convey the stormwater from the staging area to the temporary tankage and to the wet well of the pump station. The pump station and existing force main will be used to convey the storm flows to Metro for treatment.

In the event that stormwater runoff exceeds the capacity of the temporary tankage and Metro has requested that flows from the pump station be temporarily suspended the stormwater will be contained within the staging area berm until such time as the stormwater can be discharged to the pump station wet well and then to Metro for treatment.

4.1. Downstream Analysis

O'Brien & Gere performed an analysis of the potential downstream impact of the project on Nine Mile Creek in accordance with Section 4.8 of the Manual. Section 4.8 provides an alternate means to manage the flood protection volumes (overbank and extreme flood requirements or 10-year and 100-year 24-hour storms) in accordance with Permit No. GP-0-10-001.

The SCA project area tributary to Nine Mile Creek is approximately 114-acres. The Nine Mile Creek Watershed upstream of the project area is approximately 100-sq miles or 64,000-acres. This equates to about 0.2% of the watershed at that location, significantly less than the 10% referenced in Section 4.8 of the Manual as the area of study.

Based on the May 1999 FEMA Flood Insurance Study for the Town of Camillus the following data is available from the U.S. Geological Survey (USGS) stations in the vicinity of the project area:

- Upstream of Unnamed Tributary (approximately 1.35 miles upstream of the project area) – Watershed area = 95 sq miles , 10-year peak discharge rate = 3,079cfs, 100-year peak discharge rate = 4,179cfs.

- Upstream of Geddes Brook (approximately 1.26 miles downstream of the project area) – Watershed area = 103 sq miles, 10-year peak discharge rate = 3,662cfs, 100-year peak discharge rate = 4,969cfs.

Based on this information and the stormwater modeling results, the basis of design for this project will be to mitigate peak flow rates to existing SPDES outfall #18 at the following prescribed rates to mitigate potential downstream impacts to Nine Mile Creek:

- 4.8 cfs for the 1-year 24-hour storm
- 15.3 cfs for the 10-year 24-hour storm
- 25.9 cfs for the 100-year 24-hour storm

4.2. Existing Conditions

As stated above, existing conditions at the wastebeds preclude off-site stormwater runoff. Therefore, Table 4.1 presents the peak stormwater volumes for WB-12 and 13 as well as the peak discharge rates and volumes for existing SPDES outfall #18.

Table 4.1. Peak discharge rates and volumes for existing conditions

Drainage area	Storm event					
	1 –year		10 –year		100 -year	
	Rate (cfs)	Peak volume (cf)	Rate (cfs)	Peak volume (cf)	Rate (cfs)	Peak volume (cf)
WB-13 (HYD 22)	NA	410,612	NA	1,120,427	NA	1,830,825
WB-12 (HYD 23)	NA	279,611	NA	743,617	NA	1,203,315
SPDES Outfall #18 (HYD 1)	4.8	26,159	15.3	75,312	25.9	125,553

4.3. Construction Stages

As presented in Section 2, construction of the SCA and WTP will occur in stages defined by calendar year between 2010 and 2016. The 2010 facilities have been designed and construction is scheduled to begin in August 2010; conceptual construction phasing for the years 2011 through 2016 are also provided though design has not been finalized. Final design for the years 2011 through 2016 will be presented in future SWPPP updates as needed.

The following surface cover types are proposed on the wastebeds during construction:

- Undeveloped Areas (with existing vegetation)
- Staging Areas
- Building/Parking Areas
- Geomembrane Lined Areas
- Operational Areas.

The “Rate” columns represent the rate at which stormwater will run off of the Staging Areas and Building/Parking Areas and the rate at which stormwater will accumulate in the Lined Areas. This column does not represent a discharge rate from the Lined Areas because the stormwater will be

retained and pumped to SPDES outfall #18 at or below the prescribed peak discharge rate to Nine Mile Creek to mitigate potential downstream impacts.

Results of model runs for the proposed construction stages through 2016 were provided to the NYSDEC under separate cover. The 2010 information is presented in this Section along with management strategies. The 2011-2016 information and future management strategies will be provided as necessary in SWPPP updates.

4.3.1. 2010 Construction (Figure 2)

The conditions modeled for the 2010 Construction Stage are as follows:

WB-13 model components

- 150.2-acre undeveloped area
- 2.3-acre WTP Preload Area on WB-13
- 1-acre Process Preload Area on WB-13
- 1-acre WTP/SCA Staging Area on WB-13
- 12.5-acre Phase 1A SCA

WB-13 DRAINAGE AREA TOTAL = 167 ACRES

WB-12 model components

- 103.7-acre undeveloped area
- 0.33-acre Trailer Area on WB-12

WB-12 DRAINAGE AREA TOTAL = 104.3 ACRES

Results of model runs for proposed conditions associated with the 2010 Construction are summarized in Table 4.2.

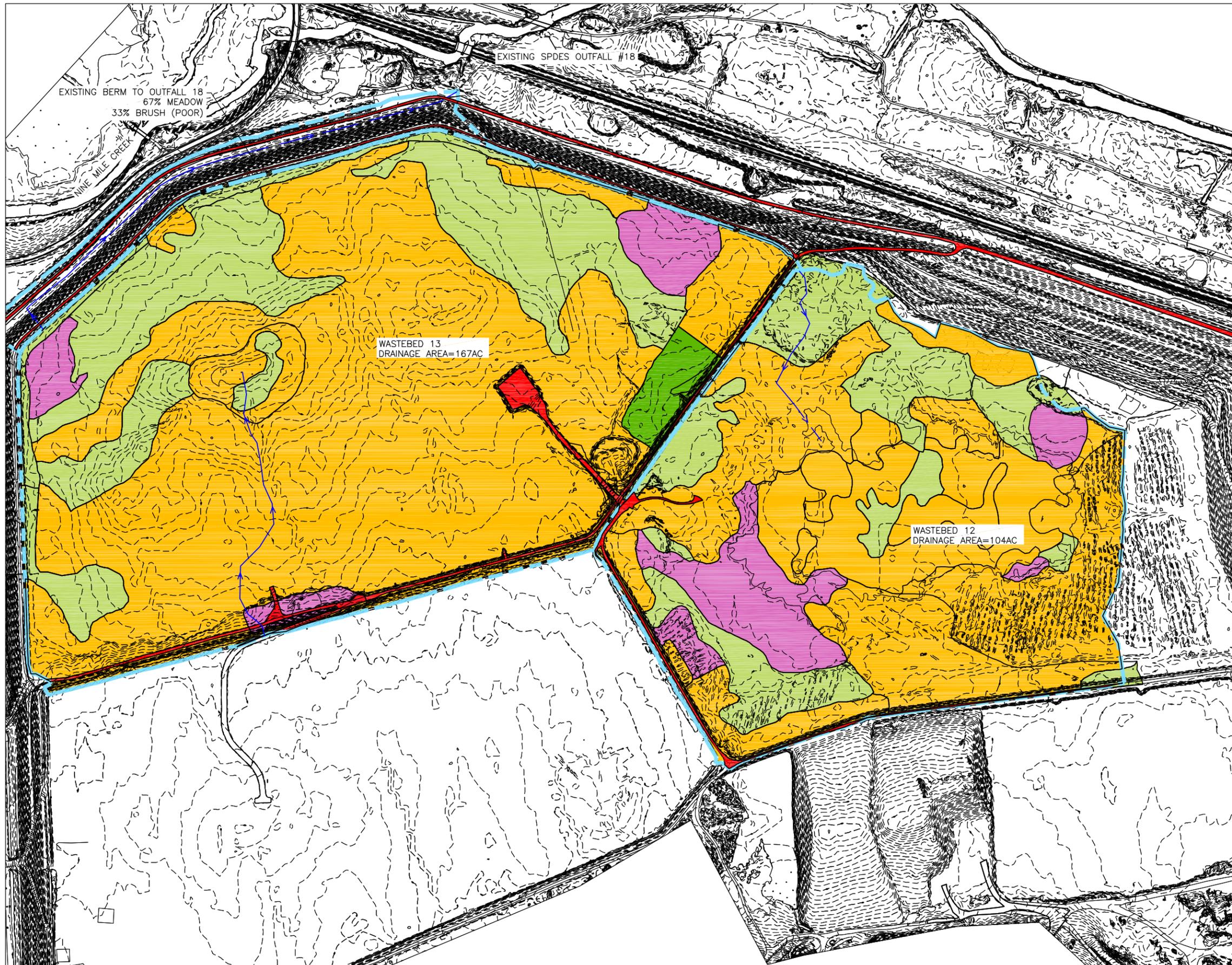
Table 4.2. Peak discharge rates and volumes in 2010

Drainage area	Storm event					
	1 -year		10 -year		100 -year	
	Rate (cfs)	Peak volume (cf)	Rate (cfs)	Peak volume (cf)	Rate (cfs)	Peak volume (cf)
WTP and Process Preload Areas (HYD 2)	3.1	6,284	9.3	18,609	15.5	31,346
Staging Area (HYD 29)	2.9	6,713	5.1	12,134	7.1	16,889
Phase 1A SCA (HYD 4)	32.2	92,310	56.6	166,846	77.8	232,227
Undeveloped portion of WB-13 (HYD 24)	NA	394,431	NA	1,048,979	NA	1,697,450
WB-12 trailer area (HYD 21)	1.0	2,215	1.7	4,004	2.3	5,573
Undeveloped portion of WB-12 (HYD 25)	NA	278,724	NA	741,258	NA	1,199,497

Stormwater will be managed according to the concepts described herein.

Applicable Figures and Contract Drawings

FIGURE 1



LEGEND

- IMPERVIOUS (GRAVEL)
- BRUSH (POOR)
- MEADOW (POOR)
- WOODS-GRASS COMBINATION (POOR)
- WOODS (GOOD)
- DRAINAGE AREA BOUNDARY
- T_c ROUTE

HONEYWELL INTERNATIONAL INC.
 TOWN OF CAMILLUS
 ONONDAGA COUNTY
 NEW YORK

EXISTING CONDITIONS



FILE NO. 1163.45613-FIG-A
 JULY 2010





Legend

 Runoff from Temporary Facilities

 Runoff from Lined Areas to SPDES Outfall No. 18

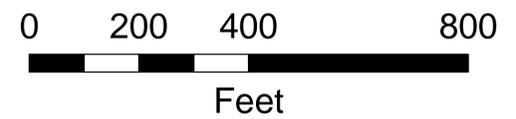


Figure 2

2010 Construction

Water Treatment Plant & Sediment Consolidation Area SWPPP

PARSONS

301 Plainfield Road, Suite 350, Syracuse, NY 13212