January 16, 2012

To:       Harry Warner, NYSDEC, Region 7 (1 bound)
          Diane Carlton, NYSDEC, Region 7 (1 PDF)
          Holly Sammon, Onondaga County Public Library (1 bound)
          Samuel Sage, Atlantic States Legal Foundation (1 bound)
          Joseph J. Heath, Esq., Onondaga Nation (cover letter only)
          Cara Burton, Solvay Public Library (1 bound)
          Mary Ann Coogan, Camillus Town Hall (1 bound)
          Stephen Weiter, Moon Library (1 bound)

Re:       Letter of Transmittal – Onondaga Lake Repository Addition

The below document has been approved by the New York State Department of Environmental Conservation (NYSDEC) and is enclosed for your document holdings:

- Onondaga Lake, 30-Inch/24-Inch Force Main Rehabilitation Phase 1 Work Plan dated October 26, 2011.

Sincerely,

[Signature]

John P. McAuliffe, P.E.
Program Director, Syracuse

Enc.

cc: Richard Mustico - NYSDEC
October 28, 2011

Mr. Alfred J. Labuz
Remediation manager
Honeywell
301 Plainfield Road, Suite 330
Syracuse, NY 13212

Re: 30" and 24" Force Main Rehabilitation Work Plan for the Onondaga Lake Mercury Sediments Site (Site No. 734030)

Dear Mr. Labuz:

The New York State Department of Environmental Conservation (Department) has reviewed the revised construction work plan submitted via your October 26, 2011 letter. The construction work plan is entitled "Onondaga Lake, 30-Inch/24-Inch Force Main Rehabilitation Phase 1" (Work Plan), and is also dated October 26, 2011. The rehabilitation of this force main from the leachate pumping station (located adjacent to Waste Bed 12) to its discharge into the METRO sewer system will enable the use of this force main to transfer treated water from the SCA Water Treatment Plant to METRO for ammonia polishing.

The Work Plan is hereby approved. Please distribute copies of the document, including this approval letter, as per the distribution list and the document repositories list selected for this site.

Any permitting required by the Onondaga County Department of Water Environment Protection (OCDWEP) to implement this work, and any coordination necessary between Honeywell and OCDWEP for this project is still obligatory.

If you have any questions regarding this letter, please feel free to call me at 518-402-9676.

Sincerely,

[Signature]

Richard A. Mustico, P.E.
Project Manager
Remedial Bureau D
Division of Environmental Remediation
ee: Timothy Larson - NYSDEC
Mary Jane Peachey - NYSDEC, Syracuse
Margaret Sheen, Esq. - NYSDEC, Syracuse
Harry Warner - NYSDEC, Syracuse
Joe Zalewki - NYSDEC, Syracuse
Sandra Lizlovs - NYSDEC, Syracuse
Valarie Stephenson - NYSDEC, Syracuse
Tara Blum - NYSDEC, Syracuse
Geoff Laccetti - NYSDOH
Mark Sergott - NYSDOH
Robert Nunes - USEPA, NYC
Argie Cirillo, Esq., USEPA, NYC
Sandra Tuori-Bell - OCDWEP
Nick Capozza - OCDWEP
Michael Lannon - OCDWEP
Daniel Jean - OCDWEP
Jeanne Powers - OCDWEP
Eric Schultheis - OCDWEP
Joseph Heath, Esq. - Onondaga Nation
Thane Joyal, Esq. - Onondaga Nation
Jeanne Shenandoah - Onondaga Nation
Heidi Kuhl - Onondaga Nation
Curtis Waterman - HETF
Alma Lowry, Esq. - Onondaga Nation
Fred Kirschner - AESE, Inc.
William Hague - Honeywell
John McAuliffe - Honeywell, Syracuse
Brian Israel, Esq. - Arnold & Porter
Jeff Rodgers - OBG
Christopher Calkins - OBG
Brian White - OBG
Marc Dent - OBG
Chris Killoren - OBG
Steve Miller - Parsons
Paul Blue - Parsons
David Babcock - Parsons
October 26, 2011

Mr. Richard Mustico, P.E.  
Project Manager  
NYSDEC Div. of Environmental Remediation  
Remedial Bureau D - 12th Floor  
625 Broadway  
Albany, NY 12233-7016

RE: 30” and 24” Force Main Rehabilitation Work Plan  
City of Syracuse, Onondaga County, NY  
Site No. 734030

Dear Mr. Mustico:

O’Brien & Gere is submitting a final copy of the Onondaga Lake 30” and 24” Force Main Rehabilitation Phase 1 Work Plan to New York State Department of Environmental Conservation (NYSDEC) for record.

Should you have any questions, please contact Chris Killoren at O’Brien & Gere (315-956-6894) or me at your earliest convenience.

Sincerely,

Alfred J. Labuz  
Remediation Manager

Enc. (1 copy, 1 CD)

Cc: Mr. Robert Nunes  
Mr. Donald J. Hesler  
Ms. Mary Jane Peachey  
Mr. Tim Larson  
Ms. Sandy Lizlovs  
Mr. Joe Zalewski  
Ms. Tara Blum  
Ms. Valerie Stephenson  
Ms. Sandra Tuori-Bell  
Mr. Nick Capozza  
Mr. Michael Lannon  
Mr. Daniel Jean  
Ms. Jeanne Powers

USEPA (4 copies)  
NYSDEC, Albany (ltr only)  
NYSDEC, Syracuse (ltr only)  
NYSDEC, Albany (1 copy)  
NYSDEC, Syracuse  
NYSDEC, Syracuse (ltr only)  
NYSDEC, Syracuse  
NYSDEC, Syracuse (1 copy)  
OCDWEP, Syracuse (ec or CD)  
OCDWEP, Syracuse (ec or CD)  
OCDWEP, Syracuse (ec or CD)  
OCDWEP, Syracuse (ec or CD)
Mr. Eric Schultheis
Joseph J. Heath, Esq.
Thane Joyal, Esq.
Mr. Fred Kirschner
Ms. Jeanne Shenandoah
Ms. Heidi Kuhl
Mr. Curtis Waterman
Ms. Alma Lowry
Brian D. Israel, Esq.
Mr. Harry Warner
Argie Cirillo, Esq.
Margaret A. Sheen, Esq.
Mr. Steven Bates
Mr. Geoffrey J. Laccetti
Mr. William Hague
Mr. Steve Miller
Mr. Paul Blue
Mr. David Babcock
Mr. Al Labuz
Mr. Christopher Calkins
Mr. Jeffrey Rogers
Mr. Brian White
Mr. Marc Dent
Mr. Chris Killoren

OCDWEP, Syracuse (ec or CD)
Onondaga Nation (ec ltr only)
Onondaga Nation (ec or CD)
AESE, Inc. (ec or CD)
Onondaga Nation (1 copy and ec ltr only)
Onondaga Nation (1 copy)
Onondaga Nation (ec or CD)
Onondaga Nation (ec ltr only)
Arnold & Porter (ec or CD)
NYSDEC, Region 7 (1 copy & CD)
USEPA (ec ltr only)
NYSDEC, Region 7 (ec ltr only)
NYSDOH (1 copy, 1 CD)
NYSDOH (ec or ec ltr only)
Honeywell (ec or CD)
Parsons (CD/ltr only)
Parsons (ec ltr only)
Parsons (ec ltr only)
Honeywell (ltr only)
O’Brien & Gere (ec or ec ltr only)
O’Brien & Gere (ec or ec ltr only)
O’Brien & Gere (ec or ec ltr only)
O’Brien & Gere (ec or ec ltr only)
O’Brien & Gere (ec or ec ltr only)
October 26, 2011

Onondaga Lake
30-Inch/24-Inch Force Main Rehabilitation Phase 1
Town of Geddes, N.Y. and City of Syracuse

Honeywell

October 26, 2011
I, Brian White, certify that I am currently a NYS registered professional engineer and that this Remedial Action Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).
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A  Project Schedule  
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C  Design Drawings
1. INTRODUCTION

O’Brien & Gere’s (OBG’s) Construction Work Plan is provided in the subsections that follow. This Construction Work Plan has been prepared to demonstrate OBG’s proposed approach to executing the work activities outside of the Metro property. Work activities on the Metro property will be addressed in an addendum to this Work Plan and will be submitted at a later date.

1.1 SUMMARY

The remaining sections of this Construction Work Plan are organized as follows:

- Section 2 – Project Management Staffing
- Section 3 – Health and Safety, Air Quality Monitoring and General Conditions
- Section 4 – Material Handling and Disposal Plan
- Section 5 – Erosion and Sediment Control
- Section 6 – Leak Repairs
- Section 7 – SCA, County Force Main and Willis Ave. GWTP Tie-In
- Section 8 – 24” Force Main Harbor Brook Crossing
- Section 9 – Construction Water Management

1.2 PROJECT BACKGROUND

Treated water from the proposed Sediment Consolidation Area (SCA) Water Treatment Plant (WTP) and leachate from Settling Basins 9-15 retention ponds will flow through the 30” and 24” force mains and discharge to the Metropolitan Syracuse Wastewater Treatment Plant (Metro). A 30”/24” Force Main Integrity Investigation that was completed in June 2010 indicated several areas requiring rehabilitation. The design for the rehabilitation work downstream at Metro property is being finalized.

2. PROJECT MANAGEMENT STAFFING

Assignments and responsibilities of the project team are summarized in the descriptions below:

2.1 PROJECT MANAGEMENT STAFF

**NYSDEC PROJECT MANAGER – RICHARD A. MUSTICO, P.E.**

**HONEYWELL DESIGN / CONSTRUCTION MANAGER – STEVE MILLER, P.E.**

**PROJECT OFFICER – BRIAN WHITE, P.E.**

The role of the Project Officer is to see that Honeywell’s expectations for project quality, safety, schedule, and performance are met or exceeded. In addition, the Project Officer will periodically attend construction review meetings, and will be available on an as-needed basis to the project team.

**PROJECT MANAGER – CHRISTOPHER KILLOREN**

The Project Manager will manage the procurement and construction phases of the project on a day-to-day basis, monitor and evaluate project controls throughout all phases of the project, and see that the technical and quality objectives established during the design phase of the project are realized in the construction project. The Project Manager will serve as the primary contact between the Honeywell Project Manager and O’Brien & Gere.
ENGINEERING MANAGER – MARC DENT, P.E.

The primary responsibilities of the Engineering Manager will be to lead engineering activities during the construction phase of this project. The Engineering Manager will attend weekly construction progress update meetings at the request of the Project Manager, and provide shop drawing reviews, respond to request for information, and provide input to value engineering alternatives identified during the construction phase of the project.

HEALTH AND SAFETY MANAGER – STEVEN THOMPSON

The primary responsibilities of the Health and Safety Manager will be to develop, implement and enforce the Site Specific Health and Safety Plan for the project.

3. HEALTH AND SAFETY, AIR QUALITY MONITORING AND GENERAL CONDITIONS

This section summarizes O’Brien & Gere’s proposed approach to health and safety, air quality monitoring and general conditions.

3.1 HEALTH AND SAFETY

As with all O’Brien & Gere projects, safety will be a top priority. Health and safety excellence is a core value of both Honeywell and O’Brien & Gere. O’Brien & Gere believes that all injuries and occupational illnesses, as well as safety and environmental incidents are preventable. We will adhere to high standards for the safe operation of this project and the protection of the environment, employees and the people in the community. There cannot be any compromise with the safety and health of our employees, visitors, subcontractors, and any other persons who may come under our supervision.

O’Brien & Gere believes that with effective employee involvement, training, project planning and auditing that all accidents are preventable. Training and planning tools, which will be utilized and implemented by O’Brien & Gere safety staff will include the following:

- **Project Health and Safety Plan:**
  O’Brien & Gere will develop a project site specific Health & Safety Plan (HASP), including job safety analyses (JSA), for the scope of work associated with this project. The HASP will be reviewed as part of the site orientation training and all direct hire personnel/subcontractors will be required to follow the requirements of the HASP. This HASP will be in accordance with Honeywell’s Syracuse Portfolio Health and Safety Program (HSP²).

- **Subcontractor Safety Pre-Qualifications:**
  Each potential subcontractor who will be working for O’Brien & Gere on this project will be required to submit a completed Honeywell Safety Questionnaire Form for approval by O’Brien & Gere and Honeywell prior to initiating work onsite. O’Brien & Gere holds subcontractors to the same safety standards to which O’Brien & Gere is held accountable.

- **Drug and Alcohol Testing:**
  O’Brien & Gere believes in a drug and alcohol free workplace. Drug and alcohol testing is a condition for work on Honeywell projects covered by the HSP². All employees will participate in a pre-project drug screening prior to beginning work on the project.

- **Pre-Work Health and Safety Kickoff Meeting:**
  A pre-work Health and Safety kickoff meeting will be scheduled with the project team.
Personnel working on this project will be required to attend a site orientation training session administered by O’Brien & Gere’s safety supervisor prior to engaging in any work activities and/or entering the work zone.

**Daily Pre-Task Planners and Weekly Toolbox Safety Meetings:**

Daily safety talks are documented utilizing a Daily Pre-Task Planner form found in the Honeywell Syracuse Portfolio Health and Safety Program HSP2 Document. Pre-Task Planners are prepared on a daily basis and will be reviewed with the work crew focusing on any changes in equipment, tools, work methods or site conditions as well as key hazards and safety controls.

Project personnel must attend a project Weekly Toolbox Safety Meeting. These meetings are an opportunity to conduct field safety training, distribute key safety information, re-enforce safety as a priority and/or review recent inspection results directly to all project personnel.

O’Brien & Gere understands the chemical and physical properties of site contaminants. Based on previous experiences with intrusive work at this particular site, we plan to perform work in modified level D protection. However, we will be prepared to upgrade to Level C protection should conditions warrant. The actual level of protection used will be based on results of our air monitoring program.

Should conditions warrant, a three-zone approach will be used during site operations in order to contain the potential spread of contamination and control the flow of personnel, vehicles, and materials into and out of the work area. The zones include the exclusion zone, the contaminate reduction zone, and the support zone. The exclusion and contaminate reduction zones will be designated using temporary construction fence or hazard tape and be established for all intrusive work. Access to these zones will be limited to authorized individuals.

### 3.2 AIR QUALITY MONITORING

O’Brien & Gere will implement an employee work zone air monitoring program. This program will be detailed in the site specific health and safety plan.

**3.2.1 Community Air Monitoring Plan**

The objective of the community air monitoring plan (CAMP) is to describe air monitoring during ground intrusive remedial construction activities during the various phases of the project. Air monitoring will evaluate potential air quality impacts on the surrounding community by real-time perimeter air monitoring for particulate (dust) and total volatile organic compounds (TVOCs). Odors will also be evaluated. The CAMP is provided as Appendix B.

### 3.3 GENERAL CONDITIONS

O’Brien & Gere will provide labor, equipment and coordination necessary to perform the following general work associated with the project.

**3.3.1 Mobilization**

O’Brien & Gere will mobilize equipment, personnel, materials and supplies as necessary to perform the proposed work. Additional equipment will be mobilized as needed.

We anticipate the mobilization to include the following:

- Temporary Site Facilities including portable toilets, and equipment and material storage trailer, etc.
- Excavator
- Loader
- Dump Truck
- Trench Box
- Frac Tanks and Water Management Equipment
» Air Monitoring Equipment
» Safety and Personal Protective Equipment, and
» Miscellaneous Hand Tools and Portable Equipment

3.3.2 Site Security
The Construction Supervisor will be responsible for site security during working hours. On site personnel and visitors will be required to sign-in and sign-out at the O’Brien & Gere field office trailer located behind the Honeywell Willis Avenue Groundwater Treatment Plant. Vehicular traffic will be permitted in designated parking areas. During non-working hours, portable equipment will be secured in an on-site storage trailer. Excavations will be protected using construction fence and by staging equipment to minimize access.

3.3.3 Clearing and Grubbing
Clearing and grubbing will be performed using standard safe work practices. Trees and vegetation outside the limits of excavation will be maintained and protected to the extent practical. Holes created by clearing and grubbing that are below finish grade will be backfilled with suitable material.

3.3.4 Site Restoration
Once construction activities are complete, disturbed areas at leak and tie-in locations, and Harbor Brook crossing will be restored to existing site conditions. Acceptable excavated native material will be used as backfill to achieve elevation of existing grade.

4. MATERIAL HANDLING AND DISPOSAL PLAN
The Material Handling and Disposal Plan describes procedures for handling materials during execution of the work. The goal of these procedures is to minimize contamination of clean materials or areas, minimize recontamination of cleaned areas, minimize tracking of contaminated material to uncontaminated areas, and minimizing generation of dust.

4.1 LEAK REPAIRS, SCA AND COUNTY FORCE MAIN/WILLIS AVE. GWTP TIE-IN LOCATIONS, AND 24” HARBOR BROOK CROSSING
Excavated material from the repair work at the three leak and the SCA tie-in locations will be staged adjacent to the trench and reused as backfill. Clean fill material is also expected to be imported in these areas.

Excavated material from the County force main and GWTP tie-in installation will be field screened for visual and olfactory characteristics. Visual free product, staining and / or strong odors will be considered indicators that soil may be hazardous. Excavated soils will also be screened using a PID. Elevated PID readings taken at the surface of the excavator bucket will also be considered an indicator that excavated soil may be hazardous. This excavated material will be staged at the existing temporary soil staging areas at the Onondaga lakeshore used during the Phase 1 DNAPL Modifications Project. There are two existing staging areas; one for soils exceeding field screening levels (greater than 10 ppm on the PID and strong odors), and one for material that does not exceed field screening levels (greater than 0 and less than 10 ppm on the PID). The material will be staged in the appropriate staging area on 10-mil polyethylene sheeting and covered with 6-mil polyethylene sheeting. Spilled material onto the access road during transport to the staging area will be cleaned up immediately. Soils that are visually clean with no odor (0 ppm on the PID) will be placed adjacent to the trench and reused as backfill.

Waste characterization samples will be collected on the staged material. One composite sample will be collected and analyzed from each stockpile. Samples will be analyzed for the following:

» Total and TCLP VOC's by Method 8260B and 1311/8260B, respectively
» Total and TCLP SVOC's by Method 8270C and 1311/8270C, respectively
» Total and TCLP Mercury by Method 7471A and 1311/7470A, respectively
» Total and TCLP Metals by Method 6010A and 1311/6010A, respectively
» Total PCBs by Method 8082A
» Ignitability, by EPA Method 1010
» Reactivity, (Cyanide and Sulfide) by Methods 7.3.3.2 and 7.3.4.1
» Corrosivity, by Method 9045C, and
» Percent Moisture, by Method D2216

Excavated non-hazardous soils from the 24” Harbor Brook Crossing work that cannot be used on-site will be transported and staged at Waste Bed B. Materials will be staged on 10-mil polyethylene sheeting and covered with 6-mil polyethylene sheeting. Excavated materials will be transported in a relatively dry condition in a water tight truck to the storage area utilizing Part 364 Permitted dump trucks. Trucks will be loaded cautiously to preclude the need for decontamination. If necessary, the dump end of the haul trucks will be lined with poly to prevent loose or wet material from leaking from the truck. Dry material will be loaded to the back of the truck and wetter material towards the front.

If the soils are hazardous, they will be transported off-site for disposal at a permitted disposal facility.

5. EROSION AND SEDIMENT CONTROL

Erosion and sediment control (ESC) features will be installed in accordance with NYSDEC standards and specifications for Erosion and Sediment Control. ESC activities will include:

» Resource Protection
» Surface Water Protection
» Runoff and Drainage Control
» Erosion and Sediment Control
» Maintenance and Inspection

5.1 RESOURCE PROTECTION

Important trees and rooting zones in previously restored areas along the lake shore will be marked prior to construction.

5.2 SURFACE WATER PROTECTION

The main bodies of water immediately adjacent to the County Force Main and Willis Ave. GWTP tie-in location and Harbor Brook Crossing are Onondaga Lake and Harbor Brook.

Construction access roads and entrances have been previously constructed at the Site and are maintained. Storm water will be generated upstream of the construction from the I-690 corridor or generated on-site. Silt fencing will not be required to be installed since the area is contained from the lake by the existing barrier wall. Surface water will be contained within the barrier and allowed to infiltrate into the light weight fill area, where it will be collected in the existing groundwater collection trench and pumped to the Willis/Semet Groundwater Treatment Plant (GWTP). If necessary, accumulated sediment will be managed in the same manner as that described for excavated spoils in Section 4 of this plan.

5.3 RUNOFF AND DRAINAGE CONTROL

Construction water pumped from excavations or dewatered from the 30”/24” force main will be managed in accordance with Section 9 – Construction Water Management.

There are no outfalls discharging storm water into the working construction area.
5.4 EROSION AND SEDIMENT CONTROL
Soil stockpiles and exposed soil within the materials handling area will be covered with 6-mil poly sheeting to prevent the piles from washing out. Silt fence will be placed around stockpiles to minimize migration of sediment. Additional construction entrances will be added, if needed based on site conditions.

5.5 MAINTENANCE AND INSPECTION
Storm water management and erosion control will be inspected at least once every seven (7) calendar days during construction. Erosion and sediment control practices will be inspected to maintain integrity and effectiveness. Inspection forms will be kept at the O’Brien & Gere field office trailer.

6. LEAK REPAIRS
This section describes the scope of work related to the leak repairs to the force main at the locations identified during the previous investigation Project.

An excavator will be utilized to excavate the area around the force main at a leak location and the force main will be pressurized (hydrostatically) to identify the leak. If a leak is observed during the pressure test, the pressure will be removed from the pipe and the leak repaired per the Typical 30”/24” Ductile Iron Piping Rehabilitation Detail as shown on Contract Drawing G-14 – Rehabilitation Details. The excavation will then be backfilled per the Typical Utility Trench Detail on Contract Drawing G-15 – Rehabilitation Details. Excavated materials will be handled as described in Section 4 of this plan. Construction water will be handled per Section 9 – Construction Water Management of this plan.

Once the repair is made at a leak location, hydrostatic pressure testing in conjunction with leak testing will confirm that the pipe is repaired and additional leaks are not present. Pressure and leak testing will be performed from MH-3 to MH-6, SMH-7 to SMH-13, MH-B to MH-C, and Harbor Brook Interceptor Sewer Connection to Metro Manhole 90+97. The line will be pressure tested to 50psi for two hours in accordance with Specification 02603 – Hydrostatic Pressure Testing/Leak Detection.

With the pressure testing that was conducted in the previous investigation and the pressure testing that will be conducted during this project, the 30”/24” Force Mains will be hydrostatically tested from the Camillus Pump Station to the Metro sewer on Hiawatha Boulevard.

7. SCA, COUNTY FORCE MAIN AND WILLIS AVE. GWTP TIE-IN
Installation of the SCA, County Force Main and Willis Ave. GWTP Tie-ins includes excavation to expose the force main. The existing pipe will be removed to accommodate the installation of the new tie-ins. The SCA Connection Detail is found on Contract Drawing G-15 – Rehabilitation Details, and the County Force Main and Willis Ave. GWTP Tie-in Detail are found on Contract Drawing G-14 – Rehabilitation Details. Excavated materials will be handled per Section 4 – Materials Handling and Disposal of this plan. Construction water will be handled per Section 9 – Construction Water Management of this plan.

8. 24” FORCE MAIN HARBOR BROOK CROSSING
Installation of the 24” Harbor Brook Crossing will include the following:

» Coordinate pumping down the retention ponds prior to this work so the pumps at the Camillus Pump Station can remain off during this work.

» Coordinate with the operators at the Willis Ave. GWTP to stop discharging effluent into the 24” force main at the air relief vault MH-2 and start discharging to Outfall 15A from catch basin CB-229 to Onondaga Lake during this Harbor Brook crossing work.

» Bypass pumping is not anticipated, but appropriately sized pumps and piping will be available during this work. If necessary, the bypass will be from manhole MH-B to MH-C around the Harbor Brook crossing at the lakeshore.
» Excavation of the underground 24” pre-stressed concrete cylinder pipe (PCCP) force main (upstream and downstream of the crossing) to the first joint.

» Remove the existing above grade 24” PCCP pipe. The pipe will be removed to the first upstream and downstream joint.

» Remove the existing pipe support trestle using the appropriate lead and asbestos abatement procedures.

» Install new trestle and pipe.

» Restoration

9. CONSTRUCTION WATER MANAGEMENT

Construction and ground water management will be a key component of this project. Trench excavations will be graded as necessary to prevent surface water entry and minimize the need for water control/dewatering to the greatest extent possible. Dewatering will occur during all excavation and backfill operations, and will be accomplished with an appropriately sized pump. The retention ponds at the Camillus Pump Station will be pumped down prior to beginning the rehabilitation work.

Construction water pumped from excavations or dewatered from the 30”/24” force main to facilitate leak repairs will be stored in frac tanks, to provide suspended solids with an opportunity to settle. The water will then be pumped, as necessary, through 25 micron bag filters into the 30”/24” force main. Accumulated sediment in the frac tanks will be handled in the same manner as that described for excavated spoils in Section 4 of this plan. The water pumped back into the pipe will be used for hydrostatic pressure testing.
APPENDIX A
PROJECT SCHEDULE

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<th>Task Name</th>
<th>Duration</th>
<th>Start</th>
<th>Finish</th>
<th>Predecessors</th>
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<td>Wed 8/10/11</td>
<td>Fri 10/7/11</td>
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<td>Submit Construction (Up Stream of Metro) TAR to HW</td>
<td>1 day</td>
<td>Wed 8/10/11</td>
<td>Thu 8/11/11</td>
<td></td>
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<td>Honeywell Review, Approved TAR and PO for Construction from HW</td>
<td>25 days</td>
<td>Thu 8/11/11</td>
<td>Mon 9/19/11</td>
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<td>Fri 9/2/11</td>
<td>Thu 9/8/11</td>
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<td>OBG Self Perform (Actual Conference Schedule TBD)</td>
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<td>4 days</td>
<td>Wed 11/1/11</td>
<td>Wed 11/8/11</td>
<td>10</td>
</tr>
<tr>
<td>12</td>
<td>Kickoff Mtg. / Site Specific Health and Safety Training</td>
<td>1 day</td>
<td>Wed 11/2/11</td>
<td>Thu 11/3/11</td>
<td>7</td>
</tr>
<tr>
<td>13</td>
<td>Baseline Survey</td>
<td>3 days</td>
<td>Thu 11/3/11</td>
<td>Wed 11/9/11</td>
<td>12</td>
</tr>
<tr>
<td>14</td>
<td>County Force Main and Willis Ave. GWTP Tie-in</td>
<td>20 days</td>
<td>Wed 11/8/11</td>
<td>Thu 12/8/11</td>
<td>13</td>
</tr>
<tr>
<td>15</td>
<td>Repair at Leak Locations 1, 2 and 3 (Leak Detection and Hydrostatic Pressure Testing Inc.)</td>
<td>45 days</td>
<td>Wed 11/8/11</td>
<td>Mon 1/16/12</td>
<td>13</td>
</tr>
<tr>
<td>16</td>
<td>SCA Tie-in</td>
<td>15 days</td>
<td>Thu 1/12/12</td>
<td>Fri 1/20/11</td>
<td>14</td>
</tr>
<tr>
<td>17</td>
<td>24&quot; Harbor Brook Crossing</td>
<td>15 days</td>
<td>Fri 12/30/11</td>
<td>Mon 1/23/12</td>
<td>16</td>
</tr>
<tr>
<td>18</td>
<td>Demobilization</td>
<td>1 day</td>
<td>Mon 1/23/12</td>
<td>Tue 1/24/12</td>
<td>17</td>
</tr>
</tbody>
</table>
APPENDIX B

ONONDAGA LAKE
30-INCH/24-INCH FORCE MAIN
REHABILITATION PHASE 1
COMMUNITY AIR MONITORING PLAN

OBJECTIVES AND AIR MONITORING APPROACH

The objective of this community air monitoring plan (CAMP) is to describe proposed air monitoring activities during ground intrusive remedial construction activities for the 30”/24” Force Main Rehabilitation Phase 1 (Project). Project construction work will consist of rehabilitation of the 30”/24” force mains that run from the Camillus Pump Station to Metro. Previous analytical results of soils in Project areas near the Lakeshore have indicated the potential for air emissions of volatile organic compounds during ground-intrusive activities. Project construction involving ground intrusive activities in the lakeshore area is anticipated for a one-month period beginning in October 2011.

Project construction activities for the 30”/24” Force Main Rehabilitation are summarized as follows: 1) leak repairs, 2) SCA Tie-in, 3) County Force Main & Willis Ave. GWTP Tie-In, and 4) Harbor Brook Crossing. Of these four activities, perimeter air monitoring is proposed only for ground intrusive activities associated with the installation of the County Force Main & Willis Ave. GWTP Tie-In. Intrusive work for other Project construction activities will not be in areas of suspected contaminated soil. Therefore, perimeter air monitoring of those Project activities is not proposed.

Perimeter air monitoring is anticipated for a period of approximately one month and will evaluate potential air quality impacts on the surrounding community from volatile organic compounds (VOCs), dust (as PM_{10}) and odors. The air monitoring program described herein is designed using the New York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan (gCAMP) guidance for evaluation of potential airborne contaminant releases as a direct result of investigative and remedial work activities.

COMMUNITY RECEPTORS

The project site is bordered to the southeast and northwest by Honeywell property, to the southwest by Interstate 690 and industrial properties, and to the northeast by Onondaga Lake. The nearest residential receptors to the project site consist of homes approximately 2,300 feet south of the work site. Additional residential receptors are located over a mile away to the west, north and east.

MONITORING LOCATIONS

Air monitoring will be conducted along or within a perimeter boundary (as defined in Figure 1) around the work site as shown on Figure 1. One downwind and one upwind monitoring location will be selected at the beginning of each work day based on the work area and the predicted predominant wind direction for the day. Air monitoring locations may be moved during the day if the work area changes or the predominant wind direction shifts into a different quadrant. Site wind conditions (hourly averages) will be monitored each day using an on-site portable weather station or the existing Honeywell 10-meter weather station located along the east edge of the Semet Ponds.

DUST MONITORING

Dust monitoring will consist of continuous real-time air monitoring of particulate matter less than 10 microns (PM_{10}) upwind and downwind of the work site during daily activities. There will be two monitoring locations - one upwind and one downwind. Measurements at each location will be made using a real-time aerosol monitor.

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(such as the ThermoFisher DataRam, Thermo-Fisher ADR-1500 or similar). The aerosol monitor is a photometric light-scattering instrument that continuously measures airborne particulate from 0.1 micrograms per cubic meter (µg/m³) to ≥100 milligrams per cubic meter (mg/m³) and records the results in time-averaged concentrations.

Monitoring approach and action criteria will be based on guidance contained in the NYSDOH gCAMP. Dust levels will be expressed as 15-minute time-averaged concentrations. Action criteria and corrective responses will be as follows:

- If the downwind PM₁₀ level is 100 µg/m³ above the upwind level for a 15-minute period or if airborne dust is observed leaving the site perimeter, then additional dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM₁₀ levels do not exceed 150 µg/m³ above the upwind level and provided that no visible dust is migrating from the work area.

- If, after implementation of dust suppression techniques, downwind PM₁₀ levels are greater than 150 µg/m³ above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM₁₀ concentration to within 150 µg/m³ of the upwind level and in preventing visible off-site dust migration.

Each dust monitor will automatically alert the on-site air monitoring technician (either visual or audible alarm, or via radio or cellular-based pager) to indicate high readings that may lead to potential exceedances of action criteria.

**VOC MONITORING**

VOC monitoring will consist of continuous real-time air monitoring of total VOCs (TVOCs) at one upwind location and one downwind location during daily excavation activities using a real-time TVOC analyzer (RAE Systems MiniRae 3000, or similar). The MiniRae 3000 is a UV-light photo-ionizing detector (PID) that continuously measures TVOCs from 0.1 to 15,000 parts per million (ppm), and records the results in time-averaged concentrations.

The monitoring approach and action criteria will be based on guidance contained in the NYSDOH gCAMP. Additional lower level action criteria have also been incorporated to provide corrective responses prior to reaching gCAMP TVOC guidance limits. TVOC results will be expressed as 15-minute time-averaged concentrations. Action criteria and corrective responses will be as follows:

- If the downwind TVOC level is 2 ppm above the upwind (background) level for a 15-minute period, then the emission sources will be investigated and evaluated.

- If the downwind TVOC level is 3 ppm above the background level for a 15-minute period, controls or countermeasures will be employed on the operation activity(ies) causing the concentration increase. Controls/countermeasures may include use of spray foams to cover the emission source, or modifications to work activities. Work may continue with controls and countermeasures provided that downwind VOC levels do not exceed 5 ppm above the background level.

- If the downwind TVOC level exceeds 5 ppm above the background for the 15-minute period, work activities must be temporarily halted and monitoring continued. If the TVOC level readily decreases (per instantaneous readings) below 5 ppm (above background), work activities can resume with continued monitoring. If the downwind TVOC level persists in excess of 5 ppm (above background), work activities must continue to be halted, the source of vapors identified, controls/countermeasures taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the TVOC at the downwind perimeter site is below 5 ppm (above background) for the 15-minute average.

Background is identified by an upwind fenceline sample for each 15-minute period. Each PID will automatically alert the dedicated on-site air monitoring technician (either visual or audible alarm, or via radio or cellular-based pager) to indicate high readings that may lead to potential exceedances of action criteria. The on-site air monitoring technician will then alert the site supervisor.
ODOR MONITORING

Perimeter odor monitoring will consist of qualitative on-site odor observations downwind of daily work activities. There are no applicable Federal, State or local regulations that provide guidance on the odor levels that result in a significant impact on the public. However, if odors levels at the site are observed to increase noticeably due to site activities and appear to be traveling off-site, then controls and/or countermeasures will be implemented to control project odors.

During remedial construction periods when perimeter air monitoring is not occurring, onsite odors will continue to be observed by the O’Brien & Gere construction manager (CM). If odors are observed to increase noticeably and appear to be traveling off-site, then controls/countermeasures will be implemented to reduce odors.

QUALITY CONTROL AND QUALITY ASSURANCE

A Project site log and pre-printed daily summary field forms will be used to document site activities related to the air monitoring program. Zero and span calibration checks, and routine maintenance of the dust and VOC analyzers will be conducted at the beginning of each day following applicable manufacturer’s calibration guidelines. Records of daily field activities, calibrations and instrument field checks will be documented onto daily field forms and/or in the Project site log.

DATA MANAGEMENT AND REPORTING

Data will be manually or automatically downloaded to a computer each day for review and validation. Background levels, any exceedance of action levels or compliance criteria, and a summary of response actions taken will be recorded in daily field logs and/or daily summary field forms. At the conclusion of the study period, final results will be presented in a summary report that will include:

- air monitoring methodologies
- tabulated summaries of results
- assessment of air quality levels versus action criteria, and
- qualitative notation of odors around work areas.
Figure 1. Perimeter Air Quality Monitoring Boundary

Legend:
- Work Site
- Air Monitoring Perimeter Boundary
95% DESIGN DRAWINGS

ONONDAGA LAKE
30-INCH/24-INCH FORCE MAIN
REHABILITATION PHASE 1

HONEYWELL INTERNATIONAL INC.
MORRISTOWN, NEW JERSEY

SEPTEMBER 2011

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G-5 LEAK LOCATION #2 PLAN & PROFILE
G-6 LEAK LOCATION #3 PLAN & PROFILE
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G-12 METRO MONITORING MANHOLE DEMOLITION PLAN
G-13 REHABILITATION DETAILS
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G-4 STEEL BRIDGE SECTIONS & DETAILS
FX. STEEL BRIDGE DEMOLITION PLAN

NOTE:
1. CONTRACTOR SHALL PROVIDE AND ENSURE ALL WORK IN CONFORMITY
   WITH THE APPROPRIATE CODE & SCIENTIFIC ADVANCED PROCEDURES.

ELEVATION
SCALE 1" = 1'-0"