

0101010101  
01010101010101010101  
0101010101  
0101010101  
01010101010101010101  
0101010101  
0101010101



## HEALTHCARE COMPLIANCE SERVICES

Contact: Kris Almskog, PG, Sr. Vice President • [krisa@pwgrosser.com](mailto:krisa@pwgrosser.com)  
630 Johnson Avenue, Suite 7 • Bohemia, NY 11716  
Phone: 631.589.6353 • Fax: 631.589.8705 • [www.pwgrosser.com](http://www.pwgrosser.com)



An aerial photograph of a vast green roof installation. The roof is covered with rows of solar panels, interspersed with green vegetation. In the background, a city skyline is visible under a sunset sky with warm orange and yellow tones. A green banner is overlaid on the top right of the image.

# FIRM PROFILE

# PWGC: CLIENT DRIVEN SOLUTIONS

## MEET PWGC

PWGC was founded by Paul Grosser, PhD, PE, PG, a thought leader who recognized the need for a multi-disciplined engineering and environmental consulting firm that offered a diverse range of services to meet market demand regionally and nationally. Based in Bohemia, NY, PWGC has offices in New York City, Syracuse, Saratoga Springs and Connecticut.

PWGC serves the Northeastern United States and has established an industry recognized reputation for innovative problem solving and providing quality services to municipal, educational, private, public and federal clients. We are dedicated to providing quality products and timely services that result in practical solutions for its clients.

PWGC has a multi-disciplined staff of more than 70 professionals. Our strength lies with these licensed professional engineers, geologists and hydrogeologists, LEED accredited professionals and environmental compliance specialists, which gives PWGC a wealth of experience key to helping bring your project from idea to reality.

## CHOOSE PWGC

Whether your objectives are planning, design, redevelopment, remediation or resiliency, PWGC's services are innovative and economical. PWGC is committed to client goals and our dynamic team of professionals provide innovation and flexibility to deliver customized solutions to projects regardless of size, complexity or duration.

## THE PWGC DIFFERENCE

What sets us apart is our customized approach to each project, a dedicated, responsive team, our rapport with regulatory agencies and our exceptional project management. PWGC's assets that translate into additional value for you include the following:

- Strong working relationships with key regulatory sector players
- Specialists in regulatory requirements to facilitate quicker approvals
- Highly responsive to budget & time constraints to get your project on line faster
- Project and quality control monitoring to exceed your project needs
- More than 70 dedicated professionals to provide a wide array of services
- Strong understanding environmental compliance standards

**Make PWGC's quality environmental consulting and engineering solutions work for you.**



## PWGC QUICK FACTS

### Corporate

- Founded & Incorporated: 1990
- SAM/SBA Registered
- Small Business
- DUNS # 798730966
- Federal ID: 11-3612196

### Offices

- Bohemia, NY
- New York, NY
- Saratoga Springs, NY
- Syracuse, NY
- Shelton, CT

### Qualifications

- LICENSES - Engineer, Geologist, LSP, NC, NY, NJ, PA, MD, IN, NH, FL, WA
- LEED-AP
- Envision

### Service Codes

#### NAICS

- 562910 Environmental Remediation
- 541330 Engineering
- 541620 Environmental Consulting
- 562998 Waste Management Services
- 541370 GIS Base Mapping
- 237130 Green Services

#### SIC

- 87489905 Environmental Consulting
- 8711 Engineering Services



# SUMMARY LIST OF SERVICES

## SEQRA Consulting and Planning Services

- Administration of the SEQRA Process
- Type II Opinion Letters
- Coordinated Review
- Environmental Assessment Forms
- Scoping Documents
- Environmental Impact Statements
- Determinations of Significance
- Findings Statements
- Notices and Assistance with Resolutions
- Land Use and Zoning Assessments

## Environmental Services

- Contract Administration
- Petroleum & Chemical Spill Investigation & Remediation
- Remedial Alternative Assessment & Design
- Remedial Construction Management
- Property Transaction Services
  - Due Diligence, RI/FS, PCR
  - Brownfields Redevelopment—Investigation, Remediation, Program Management
  - Phase I, Phase II Environmental Site Assessments
  - NYC E-Designated Sites
  - NYC OER Program Management—Investigations, Remediation, Grant Application
  - Cost Estimating—Property Investigation & Remediation
- Environmental Audits—Assess Environmental Liability
- Environmental Assessment & Contaminant Source Evaluation
- Groundwater Investigation & Remediation
- Aquifer/Pumping Testing
- Risk-Based Approach Solutions
- Site Closure Reports
- UST/AST Management
- Air, Water, Soil & Soil Vapor Sampling/Monitoring Community Air Monitoring
- Environmental & Health Risk Assessment
- Radiological Investigation & Remediation Services
- Hazardous Waste Management
- Soil Management, Certified Clean Fill
- Storm Water Management
- Water Table Evaluation & Flood Mitigation
- Dewatering Design, Permitting & Compliance Sampling

## Environmental Compliance/Management

- Air Quality—Title V Permitting, Air Emission Inventories, Tier II & TRI Reporting
- Articles XI & 12 Hazardous Materials Storage Compliance for Nassau & Suffolk Counties, NY
- Chemical/Petroleum Bulk Storage Tanks—Permitting, Audits, Regulatory/Environmental Compliance Management
- Facilities Contingency Plan Development/Management, including SPCC, SWPPP, FRP
- Compliance Review
- Regulatory Compliance Reporting
- FAR 139.321 Fire Safety Inspections
- Fuel Storage Facilities & Mobile Fuel Equipment

## Industrial Hygiene

- Asbestos Inspections and Testing
- Indoor Air Quality

- Legionnaire Insoections
- Lead/Mold Testing and Remedial Plans
- Noise Surveys

## Expert Counseling/Client Representation

- Expert Testimony, Support & Counsel

## Wastewater/Water Supply

- Water Supply/Wastewater—Systems, Planning, Design
- Groundwater Modeling
- Site/System/Feasibility Evaluation, Planning & Technical Assistance
- Water Conservation Plan Development

## Natural Resource Studies

- Wetlands Delineation, Permitting & Mitigation Design
- Threatened & Endangered Species Surveys
- Migratory Studies
- Ecological Studies
- Ecological Risk Assessments
- National Environmental Policy Act (NEPA) Studies
- Planning
- Watershed Analysis

## Energy/Sustainability Solutions

- Geothermal System Feasibility Analysis, Design, Permitting & Construction Management
- Renewable Energy Design for Solar & Wind
- Carbon Footprint Analysis, Profile & Management
- Alternative Fueling Station Planning & Design, Equipment Specification, Construction Observation, Permitting, Compliance & Facility Commissioning for Compressed Natural Gas, Hydrogen, Biodiesel & Ethanol-85
- Building Due Diligence & Energy Studies
- LEED Administration & Sustainable Design Practices
- High Performance Sustainable Buildings
- Energy Conservation & Energy Recovery Alternatives
- MEP/High Efficiency Equipment Solutions
- Power Generation, Cogeneration & Fuel Cells
- Energy Modeling, Utility Rebate Programs & Tax Incentives
- Green Legislation & ARRA Stimulus Grants
- GIS Based Modeling for Wind, Solar & Carbon Footprint Analysis

## Civil/General Engineering

- “Best Economic Alternatives” Evaluation
- Comprehensive Feasibility Studies
- Conservation Plan Development
- Construction Planning, Management, QA/QC
- Drainage Planning, Grading & Design
- Evaluation, Planning & Technical Assistance
- Facility Design & Condition Assessment
- Planning & Design
- Property Condition Report

## Geographical Information Systems/Global Position Systems

- Data Collection & Conversion
- Infrastructure & Asset Management
- Wetlands & Endangered Species Delineation
- Digital Elevation Model Analysis
- Customized GIS Applications, GIS/CAD Integration
- Database Development, Conversions, Manual Digitizing
- Website Development
- GPS Field Data Collection & Post-Processing
- Remote Sensing & Image Processing



A photograph of a hospital hallway. In the foreground, a gurney with a green blanket is parked. In the background, three people in white scrubs are walking away. The floor is shiny and reflects the overhead lights. The overall color palette is light blue and white.

# HEALTHCARE COMPLIANCE & PROVIDERS

## HEALTHCARE COMPLIANCE

PWGC works closely with our healthcare clients and regulatory agencies to expedite projects, maintain compliance and minimize, if not eliminate, delays. We are committed to using the latest technologies to meet our client's goals.

PWGC provides healthcare compliance services, including the following:

- Regulatory Compliance Reporting
- Regulated Waste Management Audits/Reporting
  - Hazardous Waste
  - Universal Waste
  - Regulated Medical Waste
- Environmental and Health Risk Assessment
- UST/AST Management
- Site Selection and Planning
- Environmental Assessments/Environmental Impact Statements
- Feasibility/Economic Studies
- Preliminary and Final Closure Plans
- Remedial Action Plans and Implementation
- Post-closure Environmental Monitoring and Maintenance

Air Quality Services:

- Title V Permitting
- Air Emissions Inventories
- TRI Reporting
- Radiological Emissions

Air Quality Services:

- Title V Permitting
- Air Emissions Inventories
- TRI Reporting
- Radiological Emissions

Contingency Plan Development:

- SPCC
- SWPPP
- FRP
- Hazardous Waste Contingency Plans

PWGC clients include municipalities, federal agencies, and major industries both locally and nationally. PWGC takes pride in delivering high quality professional services on time, and on budget.



## HEALTHCARE PROVIDERS

### EASTERN REGION

PWGC provides its services to the following Healthcare providers in the Eastern Region of the United States:

- Amsterdam Hospitality, LLC
- Brookdale University Hospital and Medical Center
- Brookhaven Memorial Hospital
- Children's Hospital and Regional Medical Center
- Northwell Health, formerly North Shore LIJ Health System, et al.
- St. Charles Hospital
- Good Samaritan Hospital Medical Center
- Hackensack University Medical Center
- Hartford Hospital
- Hospital Waste Management
- The New Jewish Home
- Kennewick General Hospital
- New York Community Hospital
- New York Methodist Hospital
- North West Hospital & Medical Center
- NY Downtown Hospital
- NY Presbyterian-Columbia Medical Center
- Overlake Hospital Medical Center
- St. Barnabas Hospital
- Southampton Hospital
- South Nassau Communities Hospital
- SUNY Stony Brook
- Virginia Mason Hospital
- Whitman Hospital and Medical Center
- Winthrop University Hospital

### PACIFIC NORTHWEST REGION

PWGC provides its services to the following Healthcare providers in the Pacific Northwest Region of the United States:

- Columbia Memorial Hospital
- Evergreen Health
- Franciscan Health System
- St. Anthony Hospital
- St. Clare Hospital
- St. Elizabeth Hospital
- St. Francis Hospital
- St. Joseph Medical Center
- Good Samaritan Hospital
- Group Health
- Harrison Medical Center
- Harborview Medical Center
- Jefferson Healthcare
- LabCorp Corporation
- Mason General Hospital
- Overlake Hospital Medical Center
- Peacehealth St. Joseph Medical Center
- Providence Centralia Hospital
- Providence Everett Medical Center
- Providence St. Joseph Medical Center
- Providence St. Mary Medical Center
- Providence St. Patrick Hospital
- Providence St. Peter Hospital
- Prosser Memorial Hospital
- Pullman Regional Hospital
- St. Joseph's Medical Center - Chewelah
- Swedish Medical Center
- Swedish Ballard Hospital
- Swedish Cherry Hill Hospital
- Swedish Edmonds Hospital
- Swedish First Hill Hospital
- Swedish Issaquah Hospital
- The Everett Clinic
- Tri-State Memorial Hospital
- University of Washington Medical Center
- Whitman Hospital





# HEALTHCARE EXPERIENCE



# NORTHWELL HEALTH PROFESSIONAL ENGINEERING SERVICES

**CLIENT:** NORTHWELL HEALTH

**CONTACT:** VARIOUS CONTACTS

**SITE:** VARIOUS FACILITIES

**PROJECT MANAGER:** KRIS ALMSKOG, PG, SR. VICE PRESIDENT

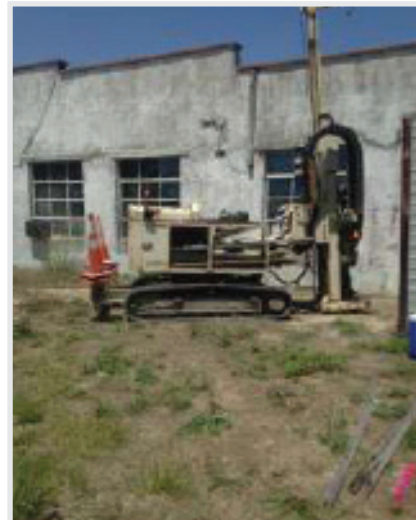
## PROJECT DESCRIPTION

PWGC provided Northwell Health with Phase I & II Environmental Site Assessments, exploratory excavation, and indoor air sampling services at various site locations.

## PWGC's ROLE

PWGC provided the following services for the following projects:

- Phase I ESA - 250 East Main Street, Bay Shore - PWGC performed a Phase I ESA at this former dry cleaning site which identified recognized environmental conditions. PWGC represented the prospective tenant during a subsurface investigation which determined that the site was impacted with chlorinated solvents and metals. The investigation included the sampling of stormwater and sanitary leaching pools, soil vapor sampling, and groundwater monitoring. A remedial excavation of contaminated leaching pools was performed. The site has been redeveloped into office space.
- Phase I & II ESA and Exploratory Excavation - 1984 Union Blvd, Bay Shore - PWGC performed a Phase I ESA at this automotive repair facility at which recognized environmental conditions were identified. PWGC represented the prospective buyer during a Phase II ESA which included a soil and groundwater boring program, a geophysical survey, and exploratory excavation. The investigation determined that a former Spill had been properly closed.
- Phase I & II - 75 West Aletta Place, Bay Shore - PWGC performed a Phase I ESA at this auto body shop at which recognized environmental conditions were identified. PWGC represented the prospective buyer in performing a Phase II ESA which included a geophysical survey, soil borings, and groundwater sampling. The investigation determined that the former on-site sanitary system was impacted with hazardous levels of lead. A remedial excavation of the impacted sanitary system was performed, which brought the site to SCDHS closure.
- Phase I ESA - 444 Lakeville Road, New Hyde Park - PWGC performed a Phase I ESA at this office building. The assessment did not identify recognized environmental conditions. PWGC did not recommend a Phase II ESA.
- Indoor Air Sampling - 1111 Marcus Avenue, Lake Success - PWGC performs quarterly indoor air sampling at this former industrial site which is impacted with chlorinated solvents. The air sampling is performed to confirm the effectiveness of the site's sub-slab depressurization system.



# NORTHWELL HEALTH PROFESSIONAL CONSULTING SERVICES

**CLIENT:** NORTHWELL HEALTH

**CONTACT:** STEVE MARZO, ASSISTANT VICE PRESIDENT

**SITE:** MULTIPLE PATIENT CARE FACILITIES

**PROJECT MANAGER:** KRIS ALMSKOG, PG, SR. VICE PRESIDENT

## PROJECT DESCRIPTION

PWGC and Northwell Health (Northwell) agreed on a five (5) year contract, term agreement from year 2013 through year 2018, to perform professional consulting services for 13 patient care facilities. PWGC assisted Northwell in managing federal, state, and local environmental compliance with regards to requirements set forth by:

- United States Environmental Protection Agency (USEPA)
- New York State Department of Environmental Conservation (NYSDEC)
- New York State Department of Health (NYSDOH)
- New York City Department of Environmental Protection (NYCDEP)
- Nassau County Department of Health (NCDOH)
- Nassau County Department of Public Works (NCDPW)
- Nassau County Fire Marshall (NCFM)
- Suffolk County Department of Health Services (SCDHS)
- Suffolk County Department of Public Works (SCDPW)
- Local water suppliers and local sewer districts

## PWGC's ROLE

PWGC provides the following services to each of the 13 patient care facilities:

- Meet and coordinate with the hospital staff to perform monthly inspections of waste management and paperwork compliance.
- Create/update training plans and implement training according to compliance status.
- Amend/update existing contingency plans.
- Perform annual Tier II reporting for chemicals that are stored in quantities exceeding 10,000 pounds (New York City hospitals requirements are much lower and include numerous chemicals).
- Review permits and registrations of environmental concern and file for new or updated permits and registrations at least ninety (90) days in advance of dates of expiration for each of the hospitals.
- Continue to assist NSLIJ in managing environmental issues by keeping the hospitals up to date on new and upcoming regulations, policies, practices, guidelines, etc.
- Provide on-call assistance to North Shore-LIJ during regulatory agency inspections and emergencies such as spills and other environmental incidents.
- Prepare annual reports for Lenox Hill, North Shore University Hospital and LIJ. These three hospitals are Large Quantity Generators and are required to submit a hazardous waste annual report to the NYSDEC.
- Prepare semi-annual compliance reports for the Title V air permit.
- Provide assistance and support in legal defense, as needed.



# NORTHWELL HEALTH TITLE V AIR PERMITTING

**CLIENT:** NORTHWELL HEALTH

**CONTACT:** MIKE ROHAN, DIRECTOR, ENGINEERING

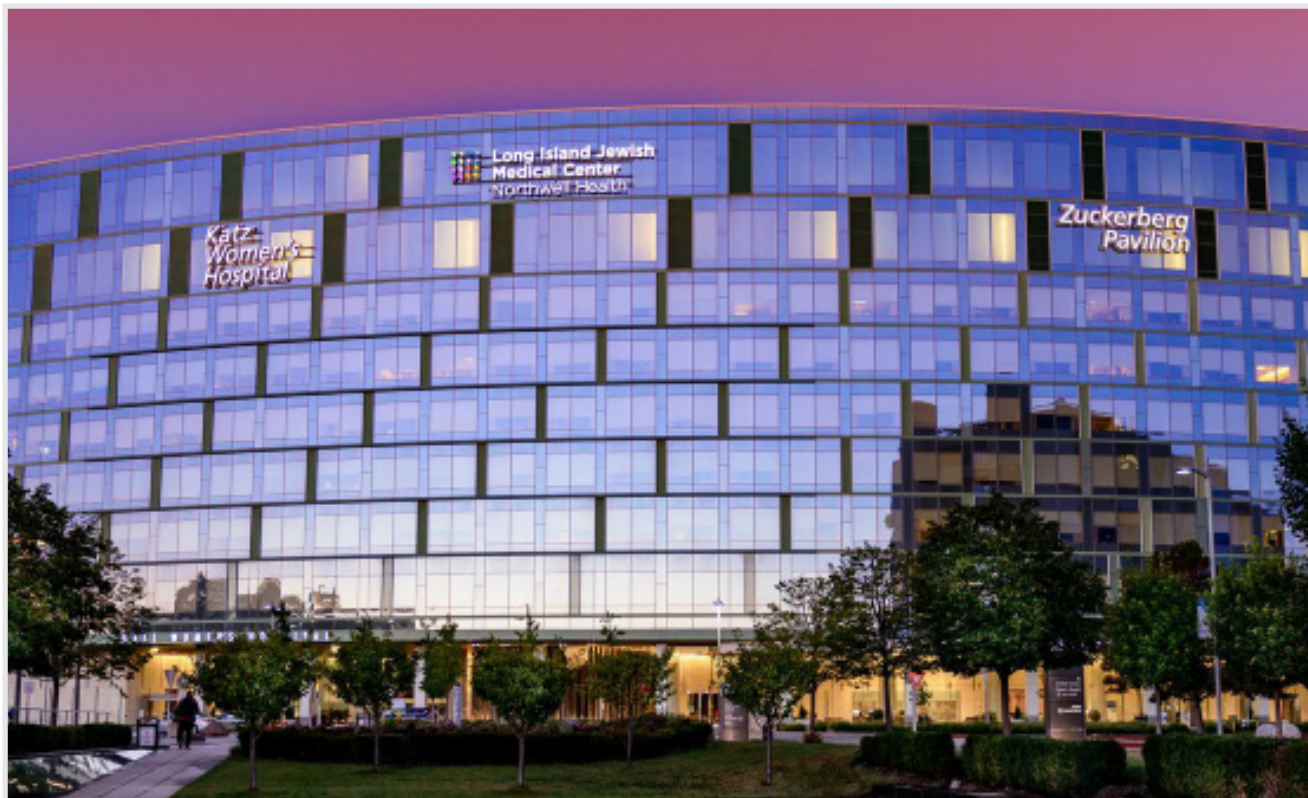
**SITE:** LONG ISLAND JEWISH MEDICAL CENTER, NEW HYDE PARK, NY

**PROJECT MANAGER:** PAUL K. BOYCE, PE, PG, PRESIDENT/CEO

## PROJECT DESCRIPTION

Title V air permitting services were provided for the Long Island Jewish Medical Center. PWGC reviewed applicable rules and regulations, such as, New Source Performance Standards (NSPS), Title V permitting, New Source Review/Prevention of Significant Deterioration Permitting, Maximum Achievable Control Technology (MACT), and Reasonably Achievable Control Technology (RACT).

PWGC provided an analysis of regulatory air laws and regulations and their applicability to cogeneration system emission sources. PWGC prepared a Title V Major Modification to permit the cogeneration engines and prepared applicable permits required by the New York City Department of Environmental Protection (NYCDEP). During the Title V application process, PWGC worked with the NYSDEC to provide LIJMC with nitrogen oxides (NOx) emission reduction credits (ERCs) for the decommissioning of 5 utility boilers and coordinated Stack Testing, which was required by newly established permit conditions.



BOHEMIA, NY • NEW YORK, NY • SARATOGA SPRINGS, NY • SYRACUSE, NY • SHELTON, CT  
P: 631.589.6353 • F: 631.589.8705 • [PWGROSSER.COM](http://PWGROSSER.COM)

# CARBON FOOTPRINT ANALYSIS

---

**CLIENT:** NORTHWELL HEALTH

**CONTACT:** MIKE ROHAN, DIRECTOR, ENGINEERING

**SITE:** MULTIPLE PATIENT CARE FACILITIES

**PROJECT MANAGER:** KRIS ALMSKOG, PG, SR. VICE PRESIDENT

---



## PROJECT DESCRIPTION

PWGC and Northwell Health (Northwell) agreed on a second five (5) year contract, term agreement from year 2016 through year 2020, to perform carbon footprint analyses for 15 patient care facilities. A baseline carbon footprint analysis was performed on each patient care facility to establish a baseline from which to measure the impact of future programs to reduce greenhouse gas emissions. Scope 1, 2 and 3 greenhouse gas emissions were calculated for each of the fifteen facilities using procedures established by the Climate Registry. Scope 1 emissions are from stationary and mobile combustion sources and refrigerants. Scope 2 emissions are from purchased electricity and heating and cooling sources of energy. Scope 3 emissions are from the disposal of wastes including regulated medical waste, municipal solid waste, paper and cardboard, etc.

## PWGC's ROLE

- Performed calculations for direct and indirect emissions per California Climate Registry Greenhouse Gas Protocols for Scope 1 and Scope 2 emissions. Scope 3 emissions were calculated to the extent possible based on available data
- Prepared a letter report with the baseline carbon footprint analysis which included calculations and graphs demonstrating the percentage of greenhouse gas emissions per activity for the dedicated baseline calendar year
- Provided summary sheets and pie charts to demonstrate the greenhouse gas impact areas as well as summary tables comparing the different facilities
- Baseline data was normalized by dividing the mass of carbon dioxide equivalents by common measures of the size of the facilities. This included building square footage, number of beds and number of occupied bed equivalents

# NORTHWELL HEALTH GEOTHERMAL WELL SYSTEM DESIGN & CONSTRUCTION OVERSIGHT

**CLIENT:** NORTHWELL HEALTH

**CONTACT:** ALFONSO LAFEMINE, DIRECTOR OF ENGINEERING AND MAINTAINENCE

**SITE:** GLEN COVE, NY

**PROJECT MANAGER:** PAUL K. BOYCE, PE, PG, PRESIDENT/CEO

## PROJECT DESCRIPTION

Design and construction of an 800-gpm open loop groundwater heat pump system in compliance with NYSDEC regulations to augment the existing systems that supply cooling to 11 buildings on the 10.3 acre campus.

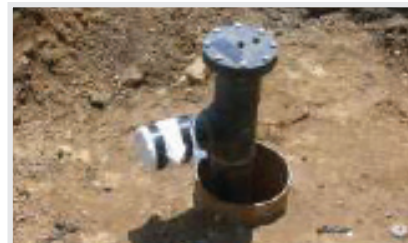
## PWGC's ROLE

- Conducted and documented a feasibility study
- Developed design and construction specifications for the geothermal well system, detailing an open-loop groundwater supply and recharge well system with inter-connecting process piping
- Coordinated well permits documentation, prepared Long Island Well Permit and Engineering Report
- Developed a project implementation strategy
- Oversaw project execution and administered field activities

To determine the extent of the proposed upgrade and expansion of existing air-cooling system:

- Investigated and determined best-suited size and location of the new wells
- Modeled the effects of the proposed system on existing wells
- Prepared construction cost estimates
- Developed project designs and strategy to address unique site challenges
- Prepared a comprehensive engineering report and well permit in accordance with NYSDEC regulations.
- Sized the various system components, and coordinated with other project consultants to route piping, and locate process equipment.

Based on analysis of hydraulic, economic, and hydrogeologic aspects, PWGC determined that the system's expansion would be feasible, and that the construction would not significantly disrupt the hospital's day-to-day operations. PWGC designed and oversaw an extensive field testing program to verify aquifer parameters and modeling results, as well as demonstrate that the proposed system would not hydraulically influence a nearby superfund site. Additionally as part of this project, PWGC oversaw the rehabilitation of two existing open loop geothermal systems that supplied cooling to the bulk of the campus.



# NORTHWELL HEALTH 500-YEAR FLOODPLAN ANALYSIS

**CLIENT:** NORTHWELL HEALTH

**CONTACT:** JESSE FRANCO, PROJECT MANAGER

**SITE:** STATEN ISLAND, NY

**PROJECT MANAGER:** PAUL K. BOYCE, PE, PG, CEO/PRESIDENT

## PROJECT DESCRIPTION

Prepare a 500-year floodplain analysis for a proposed healthcare building located outside of the 100-year flood zone and in the Area of Minimal Flood Hazard. The analysis was completed as per the request of the New York State Department of Health (NYSDOH).

## PWGC's ROLE

- Reviewed site information provided by the building manager,
- Compared proposed site grades to existing site grades and to adjacent areas,
- Calculated the approximate 500-year floodplain elevation, Developed a figure depicting the extents of a 500-year flood in the site vicinity,
- Prepared a letter report stating the findings of the analysis and how the site will be affected.

To determine the extent of the 500-year floodplain:

- Researched and determined the nearest adjacent 100-year flood zone area,
- Analyzed the surrounding areas topography in relation to the site,
- Coordinated with the site surveyor on the surveys provided and the elevation datum.

PWGC determined that the subject site is located adjacent to a site that is in Flood Zone X, 0.2 Percent Annual Chance Flood Hazard, which is more commonly known as the 500-year flood zone. Utilizing this information and the nearest adjacent 100-year flood zone elevation, the 500-year flood zone elevation was determined. The extent of the 500-year floodplain was then mapped and it was determined that the site is located outside of this area, with the elevation of the first floor above the 500-year flood elevation.



# NORTHWELL HEALTH STORMWATER DRAINAGE ANALYSIS

**CLIENT:** NORTHWELL HEALTH

**CONTACT:** MICHAEL ROHAN, DIRECTOR, ENGINEERING

**SITE:** SOUTHSIDE HOSPITAL, BAY SHORE, NY

**PROJECT MANAGER:** PAUL K. BOYCE, PE, PG, PRESIDENT/CEO

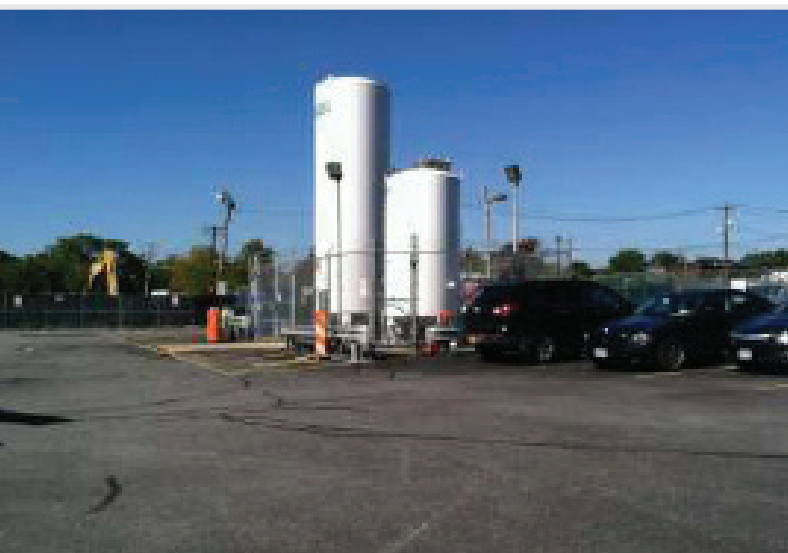
## PROJECT DESCRIPTION

As a result of the August 12-13, 2014 historic storm, Northwell Health's Southside Hospital retained PWGC to conduct a study to evaluate the existing drainage infrastructure and to make recommendations on how to alleviate future flooding at Southside Hospital.

## PWGC's ROLE

An analysis of the hospital's drainage system was performed, taking into account the historic rain event that took place on August 12-13, 2014. Because the 500-year storm slightly exceeds the August 13, 2014 storm, this event is considered as the basis for the current analysis. Recommendations were made including: refurbishing two existing, non-functioning pump stations; replacing and installing new stormwater pipe; installing 1,500 concrete leaching galleys; installing overflow pipe to Penataquit Creek; installing an overflow pipe to discharge stormwater to a public road during extreme rain events; and install five (5) additional catch basins, seven (7) additional manholes, and two (2) pump stations to capture stormwater and pump to leaching galleys.

The project is located in an area of high ground water and adjacent to Penataquit Creek. As a result, there was limited space available to store and treat groundwater on site. Therefore, coordination with the Town of Islip and the NYSDEC was required to determine acceptable on-site stormwater treatment, and ultimately to discharge overflow stormwater to Penataquit Creek.



BOHEMIA, NY • NEW YORK, NY • SARATOGA SPRINGS, NY • SYRACUSE, NY • SHELTON, CT  
P: 631.589.6353 • F: 631.589.8705 • [PWGROSSER.COM](http://PWGROSSER.COM)

# NORTHWELL HEALTH NYSDOH CERTIFICATE OF NEED, SCHEDULE 7

**CLIENT:** NORTHWELL HEALTH

**CONTACT:** MICHAEL ROHAN, DIRECTOR, ENGINEERING

**SITE:** SOUTHSIDE HOSPITAL, BAY SHORE, NY

**PROJECT MANAGER:** PAUL K. BOYCE, PE, PG, PRESIDENT/CEO

## PROJECT DESCRIPTION

Complete the New York State Department of Health (NYSDOH) Certificate of Need (CON) Schedule 7 Environmental Assessment to support various projects. The CON Schedule 7 was completed as per the request of the NYSDOH.

## PWGC's ROLE

- Reviewed project information
- Coordinated with individual site project managers regarding the project scope
- Researched FEMA flood zone data in regards to the individual site locations
- Researched designated evacuation zones in the area surrounding the individual site locations
- Compared the project scope and design in regards to Hurricane Lee, and or Irene, and Superstorm Sandy mitigation standards
- Assisted in obtaining a FEMA Elevation Certificate
- Completed the CON Schedule 7 form including information specific to Storm and Flood Mitigation



**ELEVATION CERTIFICATE**  
FORM E-1 (Rev. 10/2013)  
NYSDOH

**SECTION A - PROPERTY INFORMATION**

1. Building Owner's Name: \_\_\_\_\_

2. Building Street Address (including Apt., Box, Suite, and V. Mail No.) or PO. Box and ZIP Code: \_\_\_\_\_

3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.): \_\_\_\_\_

4. Subdivision (e.g., Block and Lot, Record of Address, Address, etc.): \_\_\_\_\_

5. Lot Area (Square Feet): \_\_\_\_\_

6. Building Footprint Area (Square Feet): \_\_\_\_\_

7. For a building with an attached garage: \_\_\_\_\_

8. Number of potential flood openings in the foundation or enclosure: \_\_\_\_\_

9. Total net area of floor openings in A.E.S.: \_\_\_\_\_

10. Engineered flood openings?  Yes  No

11. For a building with an attached garage: \_\_\_\_\_

12. Number of potential flood openings in the attached garage: \_\_\_\_\_

13. Total net area of floor openings in A.E.S.: \_\_\_\_\_

14. Engineered flood openings?  Yes  No

**SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION**

15. FIRM Community Name & Emergency Number: \_\_\_\_\_

16. Map Panel Number: \_\_\_\_\_

17. Flood Hazard Zone: \_\_\_\_\_

18. Flood Hazard Zone: \_\_\_\_\_

19. Flood Hazard Zone: \_\_\_\_\_

20. Flood Hazard Zone: \_\_\_\_\_

21. Flood Hazard Zone: \_\_\_\_\_

22. Flood Hazard Zone: \_\_\_\_\_

23. Flood Hazard Zone: \_\_\_\_\_

24. Flood Hazard Zone: \_\_\_\_\_

25. Flood Hazard Zone: \_\_\_\_\_

26. Flood Hazard Zone: \_\_\_\_\_

27. Flood Hazard Zone: \_\_\_\_\_

28. Flood Hazard Zone: \_\_\_\_\_

29. Flood Hazard Zone: \_\_\_\_\_

30. Flood Hazard Zone: \_\_\_\_\_

31. Flood Hazard Zone: \_\_\_\_\_

32. Flood Hazard Zone: \_\_\_\_\_

33. Flood Hazard Zone: \_\_\_\_\_

34. Flood Hazard Zone: \_\_\_\_\_

35. Flood Hazard Zone: \_\_\_\_\_

36. Flood Hazard Zone: \_\_\_\_\_

37. Flood Hazard Zone: \_\_\_\_\_

38. Flood Hazard Zone: \_\_\_\_\_

39. Flood Hazard Zone: \_\_\_\_\_

40. Flood Hazard Zone: \_\_\_\_\_

41. Flood Hazard Zone: \_\_\_\_\_

42. Flood Hazard Zone: \_\_\_\_\_

43. Flood Hazard Zone: \_\_\_\_\_

44. Flood Hazard Zone: \_\_\_\_\_

45. Flood Hazard Zone: \_\_\_\_\_

46. Flood Hazard Zone: \_\_\_\_\_

47. Flood Hazard Zone: \_\_\_\_\_

48. Flood Hazard Zone: \_\_\_\_\_

49. Flood Hazard Zone: \_\_\_\_\_

50. Flood Hazard Zone: \_\_\_\_\_

51. Flood Hazard Zone: \_\_\_\_\_

52. Flood Hazard Zone: \_\_\_\_\_

53. Flood Hazard Zone: \_\_\_\_\_

54. Flood Hazard Zone: \_\_\_\_\_

55. Flood Hazard Zone: \_\_\_\_\_

56. Flood Hazard Zone: \_\_\_\_\_

57. Flood Hazard Zone: \_\_\_\_\_

58. Flood Hazard Zone: \_\_\_\_\_

59. Flood Hazard Zone: \_\_\_\_\_

60. Flood Hazard Zone: \_\_\_\_\_

61. Flood Hazard Zone: \_\_\_\_\_

62. Flood Hazard Zone: \_\_\_\_\_

63. Flood Hazard Zone: \_\_\_\_\_

64. Flood Hazard Zone: \_\_\_\_\_

65. Flood Hazard Zone: \_\_\_\_\_

66. Flood Hazard Zone: \_\_\_\_\_

67. Flood Hazard Zone: \_\_\_\_\_

68. Flood Hazard Zone: \_\_\_\_\_

69. Flood Hazard Zone: \_\_\_\_\_

70. Flood Hazard Zone: \_\_\_\_\_

71. Flood Hazard Zone: \_\_\_\_\_

72. Flood Hazard Zone: \_\_\_\_\_

73. Flood Hazard Zone: \_\_\_\_\_

74. Flood Hazard Zone: \_\_\_\_\_

75. Flood Hazard Zone: \_\_\_\_\_

76. Flood Hazard Zone: \_\_\_\_\_

77. Flood Hazard Zone: \_\_\_\_\_

78. Flood Hazard Zone: \_\_\_\_\_

79. Flood Hazard Zone: \_\_\_\_\_

80. Flood Hazard Zone: \_\_\_\_\_

81. Flood Hazard Zone: \_\_\_\_\_

82. Flood Hazard Zone: \_\_\_\_\_

83. Flood Hazard Zone: \_\_\_\_\_

84. Flood Hazard Zone: \_\_\_\_\_

85. Flood Hazard Zone: \_\_\_\_\_

86. Flood Hazard Zone: \_\_\_\_\_

87. Flood Hazard Zone: \_\_\_\_\_

88. Flood Hazard Zone: \_\_\_\_\_

89. Flood Hazard Zone: \_\_\_\_\_

90. Flood Hazard Zone: \_\_\_\_\_

91. Flood Hazard Zone: \_\_\_\_\_

92. Flood Hazard Zone: \_\_\_\_\_

93. Flood Hazard Zone: \_\_\_\_\_

94. Flood Hazard Zone: \_\_\_\_\_

95. Flood Hazard Zone: \_\_\_\_\_

96. Flood Hazard Zone: \_\_\_\_\_

97. Flood Hazard Zone: \_\_\_\_\_

98. Flood Hazard Zone: \_\_\_\_\_

99. Flood Hazard Zone: \_\_\_\_\_

100. Flood Hazard Zone: \_\_\_\_\_

**SECTION C - BUILDING ELEVATION INFORMATION (MAY BE REQUIRED)**

1. Building elevation certificate is required for buildings:  Existing  New Construction  Other Construction

2. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

3. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

4. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

5. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

6. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

7. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

8. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

9. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

10. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

11. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

12. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

13. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

14. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

15. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

16. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

17. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

18. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

19. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

20. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

21. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

22. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

23. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

24. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

25. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

26. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

27. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

28. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

29. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

30. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

31. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

32. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

33. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

34. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

35. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

36. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

37. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

38. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

39. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

40. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

41. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

42. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

43. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

44. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

45. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

46. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

47. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

48. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

49. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

50. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

51. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

52. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

53. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

54. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

55. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

56. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

57. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

58. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

59. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

60. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

61. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

62. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

63. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

64. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

65. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

66. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

67. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

68. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

69. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

70. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

71. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

72. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

73. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

74. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

75. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

76. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

77. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

78. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

79. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

80. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

81. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

82. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

83. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

84. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

85. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

86. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

87. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

88. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

89. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

90. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

91. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

92. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

93. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

94. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

95. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

96. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

97. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

98. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

99. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_

100. Elevation - Base to Finish, etc. (e.g., 1st floor, 2nd floor, etc.): \_\_\_\_\_





# WINTHROP UNIVERSITY HOSPITAL ENVIRONMENTAL COMPLIANCE CONSULTING & SERVICES

**CLIENT:** WINTHROP UNIVERSITY HOSPITAL

**SITE:** MINEOLA, NY

**PROJECT MANAGER:** KRIS ALMSKOG, PG, SR. VICE PRESIDENT

## PROJECT DESCRIPTION

Develop a Spill Prevention Control & Countermeasure (SPCC) Plan, and assist in modifying a permit to operate a boiler.

## PWGC's ROLE

- Prepared the required SPCC Plan per Title 40 of The USEPA Code of Federal Regulations, Part 112 (40 CFR 112)
- Coordinated stack emissions testing of the boiler and used results to determine the annual facility-wide NOx emissions

In the event that emissions:

- A. Do not exceed the limits indicated in the NYSDEC permit to operate the boiler, PWGC would assist Winthrop to petition the NYSDEC to modify the permit (The modification would have consisted of an increase in annual volume of No. 2 fuel oil that Winthrop would be permitted to burn).
- B. Exceed the specified NYSDEC limits, PWGC would develop and identify alternatives for achieving the required NOx limits.



PWGC conducted a facility visit with appropriate Winthrop personnel, interviewed pertinent operations personnel, and collected relevant site documentation (i.e. list of chemicals in use at the facility and the current site plan.)

PWGC used its findings and existing records to prepare the SPCC Plan in accordance with 40 CFR 112.

PWGC coordinated the emissions testing and used the results to calculate the boiler's estimated annual NOx emissions to ensure they did not exceed Winthrop's permit limits.

PWGC determined that Winthrop is in compliance with the 40 CFR 112 and was successful in the process of petitioning the NYSDEC for a permit modification to increase the annual volume of No. 2 fuel oil that the facility may burn annually.



BOHEMIA, NY • NEW YORK, NY • SARATOGA SPRINGS, NY • SYRACUSE, NY • SHELTON, CT  
P: 631.589.6353 • F: 631.589.8705 • PWGROSSER.COM

# GOOD SAMARITAN HOSPITAL ENGINEERING & ENVIRONMENTAL COMPLIANCE

**CLIENT:** CATHOLIC HEALTH SYSTEM

**CONTACT:** RICHARD BIE, ASSISTANT VICE PRESIDENT, PLANT ENGINEERING

**SITE:** GOOD SAMARITAN HOSPITAL, WEST ISLIP, NY

**PROJECT MANAGER:** PAUL K. BOYCE, PE, PG, PRESIDENT/CEO

## PROJECT DESCRIPTION

PWGC was tasked with assisting the Good Samaritan Hospital Medical Center with Lead & Copper Corrosion Control Treatment in order for the hospital to maintain their on-site water well for the hospital's potable water supply needs.

PWGC performed extensive RTW desktop studies to calculate treated water corrosion indexes and found that pH adjustment utilizing calcium carbonate (lime) would likely be a more effective Corrosion Control Treatment (CCT) due to lime treatment's ability to increase the on-site well water's hardness, buffering and acid neutralization properties.

Approval from the local Health Department was granted to perform a six-month pilot study using available public water supply treated with lime in the hospital plumbing system to determine the effectiveness of CCT utilizing calcium carbonate versus sodium hydroxide and ortho-phosphate.

The results of the six-month pilot study indicated that lime treatment of the on-site potable well water supply was a viable CCT and would likely enable the hospital to maintain operation of its on-site well in compliance with current local health, state and federal standards and regulations.

PWGC initiated the start-up of a three month liquid calcium hydroxide (LCH) water treatment pilot test at the hospital. The LCH treatment system was proposed for use to address the physical site constraints posed by the on-site well's location within the hospital near administrative offices, making use of powdered lime and slaking undesirable. The successful installation of an approved LCH treatment system at the hospital was the first of its kind in Suffolk County.



BOHEMIA, NY • NEW YORK, NY • SARATOGA SPRINGS, NY • SYRACUSE, NY • SHELTON, CT  
P: 631.589.6353 • F: 631.589.8705 • [PWGROSSER.COM](http://PWGROSSER.COM)

# ST. CHARLES HOSPITAL ENGINEERING & ENVIRONMENTAL COMPLIANCE

**CLIENT:** CATHOLIC HEALTH SYSTEM

**CONTACT:** HARRY RADENBERG, DIRECTOR ENGINEERING

**SITE:** ST. CHARLES HOSPITAL, PORT JEFFERSON, NY

**PROJECT MANAGER:** PAUL K. BOYCE, PE, PG, PRESIDENT/CEO

## PROJECT DESCRIPTION

PWGC was tasked with completing a State Permit Discharge Elimination System (SPDES) application for submission to the New York State Department of Environmental Conservation (NYSDEC) for boiler and cooling tower blowdown discharge at St. Charles Hospital.

As a result of the NYSDEC requiring a decrease in proposed chemical discharge for specific unregulated proprietary chemicals, beyond what WTC manufacturer has recommended for minimal equipment protection, PWGC was tasked with looking to alternative methods.

PWGC initiated a non-chemical water treatment pilot test of one of the hospital's cooling tower units. If successful, this non-chemical treatment of the hospital's cooling tower makeup waters utilize new technology to alleviate a portion of the hospital's burden of maintaining a NYSDEC SPDES permit.

PWGC is also performing a water conservation study of the hospital's implementation of water conserving measures to reduce the volume of waste water that is directed to the local sewage treatment plant.



BOHEMIA, NY • NEW YORK, NY • SARATOGA SPRINGS, NY • SYRACUSE, NY • SHELTON, CT  
P: 631.589.6353 • F: 631.589.8705 • [PWGROSSER.COM](http://PWGROSSER.COM)

# PROVIDENCE EVERETT MEDICAL CENTER PHARMACEUTICAL WASTE PROFILE

**CLIENT:** PROVIDENCE EVERETT MEDICAL CENTER

**CONTACT:** GILBERT BODRAK, DIRECTOR OF SECURITY, EMERGENCY MANAGEMENT & OPERATIONS

**SITE:** MULTIPLE PATIENT CARE FACILITIES

**PROJECT MANAGER:** KRIS ALMSKOG, PG, SR. VICE PRESIDENT

## PROJECT DESCRIPTION

Prepare a Pharmaceutical Waste Profile as one component of compliance with Washington Department of Ecology's *Interim Enforcement Policy: Pharmaceutical Waste Management in Health Care*.

## PWGC's ROLE

- Collect approximately 50 gallons of pharmaceutical waste from multiple generation locations around the hospital including surgery, pharmacy, med/surg. floors, endoscopy and others.
- Open, pour out and physically survey the name and content volume of each tube, vial, ampoule, IV bag or syringe of pharmaceutical waste.
- Designate each waste according to either federal hazardous, or state dangerous waste code and sum the total weight/ volume of pharmaceutical waste for each waste code.
- Repeat this process for three separate batches of pharmaceutical waste over at least three months' time (to account for seasonal differences in types of waste).
- Analyze the waste code volumes for each batch, compiling a statistical perspective of the maximum and minimum proportions of a representative batch of pharmaceutical waste that each waste code could conceivably comprise.
- Prepare a Pharmaceutical Waste Profile (a generic pharmaceutical waste manifest) for the client that can be sent to Washington's department of Ecology as one component of compliance with the *Interim Enforcement Policy*.



BOHEMIA, NY • NEW YORK, NY • SARATOGA SPRINGS, NY • SYRACUSE, NY • SHELTON, CT  
P: 631.589.6353 • F: 631.589.8705 • PWGROSSER.COM

# PROVIDENCE EVERETT MEDICAL CENTER WASTE MANAGEMENT CONSULTING

**CLIENT:** PROVIDENCE EVERETT MEDICAL CENTER

**CONTACT:** GILBERT BODRAK, DIRECTOR OF SECURITY, EMERGENCY MANAGEMENT & OPERATIONS

**SITE:** MULTIPLE PATIENT CARE FACILITIES

**PROJECT MANAGER:** KRIS ALMSKOG, PG, SR. VICE PRESIDENT

## PROJECT DESCRIPTION

Provide specific waste management consulting services.

## PWGC's ROLE

- Survey the facility for dangerous waste streams and volumes, designating dangerous waste
- Survey the facility's waste streams including solid, regulated medical, dangerous, universal, special, pharmaceutical and radioactive
- Perform formaldehyde exposure baseline assessments
- Prepare hazardous material and waste management plans
- Prepare chemical hazard communication plans
- Prepare hazardous drug control plans
- Conduct hazardous drug exposure training
- Designate waste streams, including laboratory instrument effluent
- Prepare Dangerous Waste Annual Reports
- Compile Pollution Prevention Plan annual updates
- Conduct dangerous waste management personnel training
- Perform construction and demolition audits
- Respirator fit-testing
- Prepare pharmaceutical waste management plans



BOHEMIA, NY • NEW YORK, NY • SARATOGA SPRINGS, NY • SYRACUSE, NY • SHELTON, CT  
P: 631.589.6353 • F: 631.589.8705 • PWGROSSER.COM

# PROVIDENCE EVERETT MEDICAL CENTER HAZMAT EMERGENCY RESPONSE TRAINING

**CLIENT:** PROVIDENCE EVERETT MEDICAL CENTER

**CONTACT:** ED MICAS, MANAGER

**SITE:** MULTIPLE PATIENT CARE FACILITIES

**PROJECT MANAGER:** MARIE MENDES, IE, PROJECT MANAGER/BRANCH MANAGER

## PROJECT DESCRIPTION

Conduct basic and annual refresher hazardous material emergency response training according to Washington Department of Labor & Industries' *Emergency Response Standard, WAC 296-824*.

## PWGC's ROLE

- Conduct 8-hr basic hazmat emergency response training for Code Orange Team staff at each hospital to respond to spills and releases. Training includes:
  - Basic steps in hazmat spill response
  - Recognizing a hazardous material spill
  - Interpreting a Safety Data Sheet
  - Recognizing common hazmat exposure vectors (inhalation, ingestion, contact, injection)
  - Interpreting GHS, HMIS, NFPA, DOT and UN hazard labels
  - Neutralizing formalin spills
  - Cleaning up hazmat spills
  - Disposal of cleanup debris
  - Recordkeeping
  - Notification of governmental agencies for especially large or toxic spills
  - Use of the Emergency Response Guide
- Conduct 2-hr annual refresher training in the competencies required for hazmat emergency response. Training includes:
  - Tabletop exercises
  - Review of emergency response competencies
  - Review of how to interpret Safety Data Sheets



# PROVIDENCE EVERETT MEDICAL CENTER HAZMAT SURVEY

---

**CLIENT:** PROVIDENCE EVERETT MEDICAL CENTER

**CONTACT:** ED MICAS, MANAGER

**SITE:** MULTIPLE PATIENT CARE FACILITIES

**PROJECT MANAGER:** MARIE MENDES, IE, PROJECT MANAGER/BRANCH MANAGER

---

## PROJECT DESCRIPTION

Survey the facility for hazardous materials; i.e., materials that are flammable, corrosive, toxic, reactive, carcinogenic, asphyxiants, cryogenics, oxidizers, or combustible. Note product name; primary hazard; secondary hazard; primary, secondary and tertiary hazardous constituents; primary and secondary hazardous constituent proportions in the product; department; location within the department; manufacturer; size of product container, number of containers. Create a relational database (Microsoft ACCESS) with a master table of products, table of departments, table of hazards, and table of hazardous constituents. Create reports of hazardous materials in each department, then export those reports to a Microsoft Excel workbook for managers and staff who don't have ACCESS or are unfamiliar with it.



## PWGC's ROLE

- Survey the facility's departments room-by-room, closet-by-closet, drawer-by-drawer.
- Document products that designate as hazardous materials and note the information for each record described above
- Build a Hazardous Material Inventory for the client with customized reports for each department, each hazard, and the facility as a whole.
- Provide additional customized reports for the client. For example, all the areas in a facility where corrosive products are stored in order to insure that an eyewash station is within 50 feet of each storage area containing a corrosive product.



# HAZMAT EMERGENCY RESPONSE TRAINING

---

**CLIENT:** SWEDISH HEALTH SERVICES

**SITE:** MULTIPLE PATIENT CARE FACILITIES

**PROJECT MANAGER:** MARIE MENDES, IE, PROJECT MANAGER/BRANCH MANAGER

---

## PROJECT DESCRIPTION

Waste and hazardous material management consulting services for the system's five hospitals and two urgent care centers. Assist with regulatory compliance according to:

- Washington Department of Ecology
- Washington Department of Labor & Industries
- City of Edmonds Wastewater Treatment Plant
- King County Fire Marshal
- King County Department of Health
- King Department of Natural Resources, Local Hazardous Waste Management Program
- Snohomish County Department of Health
- Snohomish County Fire Marshal
- The Joint Commission
- Det Norske Veritas (DNV)

## PWGC's ROLE

- Conduct regular facility surveys of dangerous waste management practices
- Prepare the hospitals' Dangerous Waste Annual Reports
- Prepare the hospitals' Pollution Prevention Plan annual updates
- Meet regularly with the hospital's Waste & Hazardous Materials Management Committee
- Provide regular formaldehyde exposure baseline assessments
- Conduct basic and annual hazmat emergency response training for Code Orange teams
- Prepare facility wastewater discharge permit applications when needed
- Prepare facility spill prevention and containment plans
- Prepare and annually update the hospital system's Hazardous Material Inventory
- Prepare and annually update the hospital system's Hazardous Material & Waste Management Plan
- Prepare hospitals' Pharmaceutical Waste Profiles
- Assess and prepare laboratory instrument waste effluent designations to corroborate the composition of laboratory instrument waste streams that are plumbed directly to the sewer
- Conduct hazardous drug exposure training
- Prepare hazardous drug control plans

