

MINING DEVELOPMENT & PERMITTING SERVICES

CONTACT: Kris Almskog, PG, Sr. Vice President • krisa@pwgrosser.com 630 Johnson Avenue, Suite 7 • Bohemia, NY 11716 Phone: 631.589.6353 • Fax: 631.589.8705 • www.pwgrosser.com





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. PWGCs 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





INTRODUCTION TO MINING DEVELOPMENT & PERMITTING SERVICES

- MLR Permit Applications, Modifications, & Renewals
- Reserve Analysis
- NYSDOT Source Reports and Approvals
- NYSDEC compliance support
- Spill Prevention, Control and Countermeasure Plans
- Drone Aerial Imagery (Topography, photogrammetry, stockpile volumes, and slope stability)
- Stormwater Pollution Prevention Plans, SPDES permitting, stormwater management and compliance
- Hydrogeologic investigations
- Land development design, including Site Plan development, design, and permitting





- Water Quality Modeling and Monitoring Services
- · Sound level and noise monitoring
- · Water Withdrawal Permits and Reporting
- · Air Registration, Permitting and Compliance
- Visual AnalysisViewshed Analysis

Aerial Imagery and Modeling

- Remote Sensing
 - Modeling
 - 2. Elevation contours
 - 3. Volume calculations (stockpiles, cut + fill)
 - 4. 3-D renderings and site models
 - 5. Point cloud models of structures to evaluate integrity
- · Site Inspections and Monitoring
- Regulatory Compliance

Operational Compliance

- · Run-off control and handling
- Stockpile calculations
 - 1. Accurate evaluation of remaining materials
 - 2. Ensure proper sloping of stock-piles and excavation
 - 3. Berm locations and size
 - 4. Potential for additional income and maximize profits
 - 5. Additional locations for excavation operations
 - 6. Optimize site layout of stock-piles and traffic patterns





DRONE AERIAL IMAGERY

Client: Coram Materials Contact: Lorraine Vigliarolo

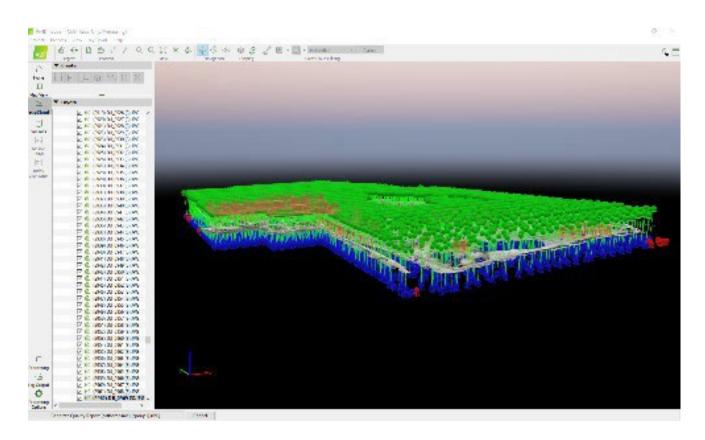
Site: Coram, NY

Project Manager: Kris Almskog, PG, Vice President

PROJECT DESCRIPTION

PWGC developed a customized flight plan to cover a 300 acre site in an effort to generate stockpile calculations and provide an inventory management plan for a mining operation. The purpose of the flight was to calculate the volume of material remaining on site, generate a cost analysis of the remaining material, and to maximize site usage by determining where they can remove more material and stay within the allowable slopes.

- Site visit to evaluate current conditions of the site.
- · Conducted a Nadir flight of the subject property.
- Generated an orthomosaic model of the site
- Rendered the orthomosaic image into a three dimensional point cloud model to generate contour lines
- Calculated the volume of each individual stockpile to generate an inventory report
- Generated a cost sheet of the material on site to assist the client in budgeting remaining resources
- Overlaid the entire site with a model of the allowable slopes to ensure the client stays within regulations, while maximizing
 the material they can remove.







BULKHEAD PERMIT APPLICATION

Client: Blue Point Community Association

Contact: Mathew Schneck **Site:** Blue Point, NY

Project Manager: Kris Almskog, PG, Sr. Vice President

PROJECT DESCRIPTION

In support of the Blue Point Association's efforts to replace over 300 feet of existing bulkhead and perform maintenance dredging along their 90 boat slip canal and marina along the Great South Bay, P.W. Grosser Consulting (PWGC) provided engineering design, planning, permitting and bid support services.

PWGC has served the Blue-point Community Association since 1999 and has conducted detailed soundings, volume estimates, collected sediment samples, coordinated disposal of dredge spoils, prepared dredging plans, permit applications and specifications, and prepared bid documents for dredging, dyke maintenance and the re-constructed bulkhead. PWGC prepared the Joint Permit Application for the project in order to secure approvals from the United States Army Corps of Engineers (USACE), the NYS Department of Environmental Conservation (NYSDEC) and Brookhaven Township; and requested and obtained numerous extension permits. Applications were prepared for the bulkhead reconstruction, as well as maintenance dredging required to maintain navigable water depths.









AIR PERMITTING

Client: Northwell Health Contact: Jeff Scott

Site: Long Island Jewish Medical Center

PROJECT DESCRIPTION

Title V Air permitting services that included the review of applicable rules and regulations, including, but not limited to 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) for the Long Island Jewish Medical Center.

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 with our sub-contractor Environmental Laboratories Inc. (ELI), which was required by newly established permit conditions.







GRADING IMPROVEMENTS AND FIELD SLOPE MANAGEMENT PLAN

Client: Calverton Tree Farm Contact: Ed Partridge Site: Calverton, NY

Project Manager: Regina Bykov, PG, Sr. Project Manager

PROJECT DESCRIPTION

PWGC prepared a grading improvement and field slope management plan for the Calverton Tree Farm. The purpose of the plan was to assist in evaluating site conditions on the existing site and the adjacent agricultural district land. In support of the plan, PWGC assisted in the evaluation of site conditions on the existing nursery site and the adjacent agricultural district lands to evaluate soils and groundwater water table conditions in the area of the failed nursery plantings and adjacent agricultural district lands. PWGC assisted with oversight of installation of three geotechnical soil borings at the Site and determination of existing soil conditions and characteristics, as well as documenting the water table, at various locations through the site. It was determined that soils were unsuitable for nursery plantings. PWGC assisted with developing a viable Nursery Operations Plan to assure survival of nursery stock plantings, which included site grading recommendations. The grading plan was prepared to optimize topsoil and subsoil conditions, and water table separation for nursery stock tree plantings.

PWGC provided the following services for Calverton Tree Farm:

- Site visit to evaluate existing site conditions.
- PWGC coordinated and oversaw the advance of three soil borings.
- Evaluated soil borings to classify the types of soils located across the site and developed a site conceptual plan identifying the maximum depth of the proposed lake.
- Prepared application to NYS Agriculture and Markets to support of adding property to the state certified Agricultural District.
- Prepared Grading Improvement and Field Slope Management Plan, including proposed modification to existing elevation grades on two portions of the property to increase agricultural yield.
- PWGC performed soil volume analysis resulting from the grading action.
- Prepared a Sediment and Erosion Control Plan.
- Prepared Planting Plan





AIR EMISSIONS INVENTORY & COMPLIANCE

Client: Adelphi University Contact: Robert Shipley

Site: Adelphi University Campus

PROJECT DESCRIPTION

P.W. Grosser Consulting (PWGC) assisted Adelphi University with air emissions compliance and new national emissions standards for hazardous air pollutants (NESHAPs) Subpart JJJJJ regulations for the University's campus.

- PWGC ensured Adelphi University met the new NESHAPs requirements in Subpart JJJJJJ by providing an initial notification to the U.S. Environmental Protection Agency, performing a one-time energy assessment and initial tune-up with submittal of compliance to the respective agency on time.
- PWGC performed an on-site audit to inventory air emissions sources that included boilers, heaters, generators and non-combustion sources that may be at the facility, which may include storage tanks, refrigerant carrying equipment and laboratory hoods. PWGC reviewed applicable air emissions documentation on file such as fuel usage records and available figures locating emissions sources. A list of boilers and generators had been provided and PWGC verified the list and added information including dates of installation, which were required for regulatory compliance review.
- The NYSDEC regulatory air requirements are based on a three-tiered permitting system: Title V permit, State Facility Permit, and a Registration required for minor sources.
- PWGC provided on call assistance to keep Adelphi University abreast and maintain compliance with air regulations.
- PWGC prepared a report summarizing the services performed.





COMPLIANCE MANAGEMENT AND CONSULTING

Client: Prysmian Power Cables & Systems USA, LLC

Contact: Romeo Menegat

Site: Neptune Regional Transmission System

Project Manager: Regina Bykov, PG, Sr. Project Manager

PROJECT DESCRIPTION

Neptune Regional Transmission System is a 65-mile long, over and undersea and underground High Voltage Direct Current (HVDC) system that features a cable that runs from Sayreville, NJ to New Cassel, NY. It carries 660 megawatts (MW) of energy, which is enough to meet the electricity demands of about 600,000 average-sized homes.

Following an extensive permitting process, PWGC provided various levels of personnel, from Principal through field/environmental scientists, to provide independent oversight services throughout the construction of this environmentally sensitive project. Specifically, PWGC was responsible for review of project work plans, specifications, stipulations and interagency agreements to provide independent oversight and auditing services to the contractors performing the cable and sub-station construction. PWGC performed independent inspections and auditing of the construction activities pertaining to the many environmentally sensitive areas along the entire Wantagh State Parkway. This included Storm Water Pollution Prevention Plan inspection for trenching, horizontal drilling activities, sub-station construction site (built on a former landfill), health and safety compliance, and NYSDOT traffic safety controls. PWGC ensured that any deficiencies were addressed immediately by the hundreds of contractors performing constructions services along the 13-mile stretch of roadway. Although PWGC reported to the NYS Public Service Commission, we worked seamlessly various contractors to ensure that the site was brought into compliance immediately to minimize potential environmental and health and safety concerns.

Attention was required during horizontal drilling activities that bored beneath water bodies and bridges in environmentally sensitive areas and during construction of the power sub-station that was built above an abandoned landfill. PWGC worked closely with the various constructions and drilling contractors to ensure that best management practices were being rigorously followed and that potential threats to the nearby wetlands were minimized by ensuring use of non-toxic drilling fluids and the installation of silt fences and swales.

PWGC effectively worked as an integral team member during this highly visible, environmentally sensitive \$600 million aggressive construction project to ensure that it was completed in accordance with the approved plans, specifications, applicable permits, approvals, and interagency agreements. As a result of cooperative working early on in the project to address potential deficiencies, the contractor was able to complete the project ahead of schedule. The cable and sub-station were activated in time for the summer peak load period.









BOHEMIA · MANHATTAN · SARATOGA SPRINGS · SYRACUSE · SHELTON, CT