



MARINE CONSTRUCTION SERVICES

CONTACT: Brian Heflich, PE, Project Manager
630 Johnson Avenue, Suite 7 • Bohemia, NY 11716
Phone: 631.589.6353 • Fax: 631.589.8705 • brianh@pwgrosser.com





FIRM PROFILE

PWGC: SOLUTIONS FOR A CHANGING WORLD

MEET PWGC

PWGC was founded more than 29 years ago 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, Albany, Syracuse, Connecticut and Washington.

PWGC serves the New York Metropolitan region and has established a strong reputation for innovative problem solving and providing quality services to municipal, educational, private, public and federal clients. The firm is dedicated to providing cost-effective and timely services that result in practical solutions for its clients.

PWGC has a multi-disciplined staff of more than 70 professionals, which includes recognized experts in the application of wastewater and water supply technologies. Its 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 and/or redevelopment, PWGC's solutions 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, rapport with regulatory agencies and exceptional project management. This approach has cemented PWGC's industry reputation as a leader in engineering. PWGC's assets that translate into additional value for you:

- 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
- Strict adherence to environmental compliance standards

Make PWGC 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
- Seattle, WA
- Shelton, CT

Qualifications

- LICENSES - Engineer, Geologist, LSP, NC, NY, NJ, PA, MD, IN, NH, MA, 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

- 8999 Environmental Services
- 8711 Engineering Services



SUMMARY LIST OF SERVICES

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

Wastewater/Water Supply

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

Expert Counseling/Client Representation

- Expert Testimony, Support & Counsel

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



An aerial photograph of a marina. In the foreground, there's a large blue graphic consisting of several overlapping, concentric, curved lines that resemble a stylized wave or a circular pattern. The marina itself is filled with various boats, including a large white yacht, several smaller sailboats, and a red and white boat. There are several wooden docks and piers extending into the water. The water is a deep blue-green color. In the background, there's a coastline with trees and some buildings. The sky is clear and blue.

MARINE CONSTRUCTION SERVICES



DOCK DESIGN

Client: Mancini MUI Architecture & Construction

Contact: Mark Mancini, AIA, 631-979-0104

Site: Private Residence, Nissequogue, NY

Project Manager: Brian Heflich, PE, Project Manager

PROJECT DESCRIPTION

PWGC provided engineering services for the design of dolphin pile clusters and a floating dock at a private residence in Saint James, N.Y. that is located on Stony Brook Harbor. The Town of Smithtown, which has zoning jurisdiction of the site, required that the floating dock be supported over the harbor bottom during low tide. Working with a local contractor, PWGC designed a chock system supported by dolphin pile clusters that supported the floating dock off of Stony Brook Harbor's bottom at low tide.

PWGC ROLE

PWGC designed elements of the pile clusters and chock system for the floating dock. The design covered the following items:

- Layout and orientation of dolphin pile clusters
- Sizing and embedment of dolphin piles
- Dolphin wire wrap and thru bolt connections
- Timber chocks with bolt connections



CLIENT DRIVEN SOLUTIONS

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PWGROSSER.COM BOHEMIA, NY 11716

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COASTAL EROSION ASSESSMENT

Client: Private Residence

Site: Orient, NY

Project Manager: Brian Heflich, PE, Project Manager

PROJECT DESCRIPTION

PWGC provided consulting services on behalf of the owner of a private residence in Orient, N.Y. that was experiencing erosion damage to the property's bluff, the condition of which was threatened by the hard shoreline armoring structures constructed at neighboring residences. PWGC authored a technical report addressed to the Town of Southold Trustees that documented the bluff's condition, assessed future erosion processes, and explained how our client's bluff had been made vulnerable based on their neighbors' actions. PWGC coordinated efforts that involved bringing together the client's attorney, the Town Trustees, neighboring homeowners, and their contractors to settle potential issues.

PWGC ROLE

PWGC provided the following services throughout the course of this project:

- Site visits to inspect the erosional condition of the bluffs
- Assessed current and future impacts to the bluff's erosion from natural and manmade sources
- Researched Town publications concerning shoreline armoring and construction policies
- Estimated cost to construct hard and soft shoreline armoring solutions
- Preparation of a letter report advocating for protection of the client's property



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BULKHEAD DESIGN & ENGINEERING

Client: Various Municipal and Private Clients

Contact: Various Contacts

Site: Various Waterfront Sites, Long Island, NY

Project Manager: Paul K. Boyce, PE, PG, President/CEO

PROJECT DESCRIPTION

PWGC played a key role in the following bulkhead project design and development:

- On behalf of JML Construction PWGC designed and performed construction oversight and conducted all regulatory processing for 900 linear feet of vinyl, and recessed vinyl bulkhead along the Great South Bay in Islip, with an additional 450 linear feet of boat basin.
- In Babylon Town, PWGC engineered the replacement of 200 Linear feet of bulkhead along the Great South Bay and Strongs Creek. We designed and oversaw the replacement of a non-functioning boardwalk with an environmentally friendly sunlight-infiltrating boardwalk.
- On behalf of Inlet Seafood in Montauk, PWGC designed and oversaw the replacement of 200 linear feet of commercial marina bulkhead and dredging of Inlet's boat basin. As part of the project, PWGC recommended the replacement of various marina piles and expedited NYSDEC bulkhead maintenance permits designs and dredging permits.
- PWGC engineered the replacement of 300 linear feet of sheeting on a Navy bulkhead to prevent further erosion due to bore holes in Remsenberg, NY.
- At the Sayville Yacht Club in Blue Point, NY PWGC engineered the bulkhead repair and erosion control measures as well as a large-scale marina dredging effort.
- On behalf of the Bluepoint Community Association PWGC designed and engineered the replacement of a failing bulkhead and dredging of the marina.

For the above-mentioned projects, PWGC played an active role in the design, engineering and construction oversight of varied bulkheading requirements associated with the developments that utilized steel, timber and vinyl elements. The range of our expertise includes multiple successful projects for public and private interests for fresh and saltwater applications. Our geological knowledge and experience helps our clients to make the right decisions regarding the selection of the appropriate design and materials to maximize aesthetics and resiliency.



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PIER REHABILITATION

Client: Village of Port Jefferson

Contact: Bob Juliano, 631-473-4724

Site: Harborfront Park

Project Manager: Brian Heflich, PE, Project Manager

PROJECT DESCRIPTION

PWGC was retained by the Village of Port Jefferson (Village) to inspect the timber pier located at Harborfront Park following reports of the structure swaying while under a load. The Village has owned the 330-foot-long pier since taking ownership of the park in 2000. However, the pier structure is reputed to be approximately 80 years old. PWGC performed the inspection by thoroughly examining the pier's structural components. Following the inspection, PWGC prepared a report for the Village that noted observed deficiencies and recommended repairs to rehabilitate and strengthen the pier.

PWGC prepared design plans and a cost estimate - \$150,000 - for the proposed repairs and played an active role in the bidding phase by working closely with the Village in soliciting and reviewing contractor bids. During construction, PWGC performed weekly site inspections as the Village's agent for construction oversight and reviewed contractor submittals and payment requests.

PWGC ROLE

The project was broken down into the tasks below:

- Assessed the structural components of the timber pier
- Recommended and designed rehabilitative repairs
- Prepared construction bid documents including:
 - Construction plans
 - Construction specifications
 - Preliminary cost estimate
- Assisted in bid phase services including:
 - Pre-bid contractor walkthrough of pier
 - Attend bid opening
 - Reviewing bid packages and preparing an award recommendation letter
- Performed oversight and delivered administrative services during the construction phase



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DOCK ASSESSMENT

Client: Village of Sag Harbor
Contact: Dee Yardley, 631-725-0107
Site: Long Wharf, Sag Harbor, NY
Project Manager: Paul K. Boyce, PE, PG, President/CEO

PROJECT DESCRIPTION

PWGC provided consulting services in the form of a fixed and floating dock assessment for the Village of Sag Harbor Marina. The Village of Sag Harbor (Village) is a waterfront community that services seasonal and transient boat slip rentals. The Village's marina is made up of five (5) separate dock areas including Long Wharf, Marine Park, Dinghy Dock, A-Dock, and B-Dock. The marina suffered significant damage as a result of 2012's Superstorm Sandy, and a series of following Nor'easter storm events that followed, which had the potential to prevent the Village from opening the marina for the 2013 boating season.

PWGC ROLE

PWGC evaluated the Village of Sag Harbor's five (5) fixed and floating docks to determine the storm-related damage. The project was broken down into the following tasks:

- Damage assessment of the fixed and floating docks
- Preparation of a cost estimate to repair the damage
- Prepare a set of construction bid documents including:
 - Construction plans
 - Construction specifications
- Assist in bid phase services including:
 - Pre-bid contractor walkthrough of docks
 - Attending bid opening
 - Reviewing bid packages and preparing a recommendation of award letter
- Perform construction administrative services during the construction phase of the project



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REHABILITATION OF LONG WHARF

Client: Village of Sag Harbor

Contact: Beth Kamper, 631-725-0222

Site: Long Wharf, Sag Harbor, NY

Project Manager: Paul K. Boyce, PE, PG, President/CEO

PROJECT DESCRIPTION

PWGC was selected by the Village of Sag Harbor to lead the design effort for the rehabilitation of its historic Long Wharf. PWGC was tasked with improving the aesthetics, functionality, public accessibility and the pedestrian environment of the existing structure. Design elements included the installation of a new steel bulkhead, plans for a new walking promenade around the perimeter of the wharf - including wood decking, a stainless-steel railing, and lighting -, improvements to storm water infrastructure, and replacement of asphalt surfaces. The project will enhance public safety, enable greater utilization of the wharf, and improve harbor water quality while preserving the historic atmosphere of the Village's downtown waterfront area.



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