

ABOUT SEWERSHED EVALUATIONS

The Clean Water Act mandates that sewers discharging into publicly-owned treatment works not carry excessive infiltration/inflow. To comply with this and other state and local regulations, federal, state, and/or local agencies having those responsibilities perform Sewer System Evaluation Surveys (SSES) to determine the volume of infiltration and inflow in the sewershed. The SSES consists of an infiltration/inflow analysis, condition assessments, capacity analysis, rehabilitation analysis, and, if appropriate, a rehabilitation program to eliminate the excessive flows.

ENGINEERS • SCIENTISTS • PLANNERS

PEER provides best value, turnkey solutions to sewershed studies and has the total resources to plan and execute a comprehensive sewershed evaluation program.

From sewer system evaluation surveys, to engineering design and comprehensive field services, to detailed flow analyses, to the development and implementation of rehabilitation programs, PEER has all the resources necessary to ensure that its clients comply with all applicable environmental regulations.

Our resource-based services are defined by:

- **Personnel**—Skilled and Experienced Professional Engineers, Scientists, and PACP and MACP Certified Personnel
- **Proven Project Management and Data Quality Assurance Procedures**
- **Dedicated IT Infrastructure** to manage Massive Data Sets including digital videos and photographs
- **State-of-the-Art Equipment and Software**—including truck mounted, steerable CCTV camera and associated equipment for field operation, video stick (or pole camera), PACP Certified Software, and GIS/CAD Integration Software





Mission

To Solve Our Clients' Environmental Problems

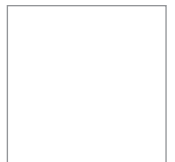
Vision

A Profitable Environmental Company Providing Best Value to
Our Clients and Staff

Visit Our Website
www.peercpc.com

Rockville, MD / Baltimore, MD / Washington, DC / Burlington, MA
Las Vegas, NV / Oak Ridge, TN / Salt Lake City, UT / Miami, FL

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• SCIENTISTS

• PLANNERS



SEWERSHED EVALUATION
SURVEYS AND PLANS



ABOUT PEER CONSULTANTS, P.C.

PEER Consultants, P.C. is a global, full-service, environmental and general civil engineering consulting firm founded in 1978. We provide professional services for the maintenance, enhancement, and restoration of the physical environment—air, land and water. Our staff is comprised of highly qualified and experienced engineers, scientists and technicians with specific expertise. We specialize in the professional services identified below.

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- Environmental Policy, Planning Management, Programs and Permitting
- Environmental Studies and Assessments, Energy Efficiency, Mitigation of Greenhouse Gas Emissions, Implementation of Demand Side Management Technologies, LEED Services in the Residential and Commercial Buildings Sectors
- Environmental Compliance Monitoring and Auditing
- ISO 14001 Environmental Management Studies, Reviews, Audits
- Water Supply Engineering—Collection, Treatment, Distribution, Recycling
- Domestic/Industrial Wastewater Engineering—Collection, Treatment, Disposal, Recycling, Reuse
- Water and Wastewater Treatment Residuals Management
- Water and Wastewater Infrastructure—Program and Construction Management
- Infiltration/Inflow Studies, Sewer System Investigation Services, Stormwater Management, Best Management Practices
- Municipal Solid Wastes, Toxic and Hazardous Materials and Waste Management, Environmental and Occupational Safety and Health—Planning, Engineering, Management, Training
- Traffic and Transportation Engineering for Rural Developments, Shopping Malls and Campuses
- Computer-Aided Design, GIS Services, Information Technology and Database Development, Implementation, and Maintenance
- Field Services including Resident Inspection, Water and Sewer Pipeline and Manhole Inspection, Maintenance and Rehabilitation, Bench-Scale and Pilot Plant Treatability Studies, Remediation Treatment Systems, and Asbestos and Lead Abatement Oversight, Management and Personal Protection Monitoring.

PEER can deliver services globally by leveraging resources from across our eight fully staffed offices in the U.S. and from our international offices in Grenada, W.I. and Johannesburg and Cape Town, South Africa using our virtual office and project-based, management approach.

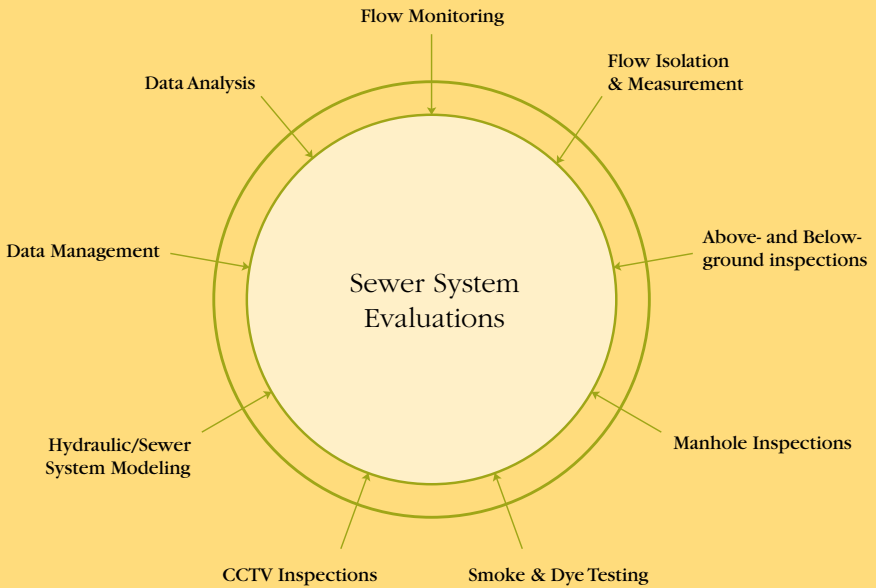
PEER is a small, minority, woman-owned business. We are the recipient of numerous quality awards, and citations from our national and international clients, the business community, and social and philanthropic organizations in recognition of our demonstrated stewardship of the environment. A consistently high percentage of our work is with prior clients—a testimony to the technical quality and responsiveness that have marked each step of our growth.



SSES SERVICES

Over time, manholes and pipelines that comprise sewer systems develop cracks, holes, leaks, and other defects that allow groundwater and storm water to enter the system. Sewer systems are further stressed during wet weather, when infiltration and inflow contribute to peak flows and increase the potential for overflows. This extraneous flow also impacts downstream operations by limiting treatment capacities, increasing transport and treatment costs, and causing system backups and other maintenance related problems.

With extensive experience, proven techniques, and state-of-the-art equipment, PEER provides professional sewer system investigation and evaluation services, including field investigations as shown below.



DATA MANAGEMENT, ANALYSES AND RECOMMENDATIONS

PEER's data management competencies lie in our ability to seamlessly integrate data collection, analyses and reporting into an SSES program—at its inception and not as an afterthought. This enables us to efficiently and accurately analyze and report data, which translates into increasing the response time available to identify areas of concern in all field related activities of the SSES; better risk based rehabilitation strategies; and, ultimately better planned rehabilitation programs.

CCTV INSPECTIONS

ENGINEERS

• SCIENTISTS

• PLANNERS



PEER utilizes state-of-the-art equipment that can be configured to inspect pipes from 6" to 60" in diameter. Our inspections are conducted by highly experienced and PACP certified personnel using PACP compliant software. Our video output can be provided in a number of formats (VHS or DVD). Customized databases can be designed to collect the data important to your needs and analysis.

PEER has successfully completed challenging pipeline inspection and cleaning projects for our clients.

13000 LF of 48 inch Force Main, Northwest Branch Sewershed, WSSC—PEER conducted CCTV inspection of this force main using specialized CCTV equipment. Pipeline condition was assessed using laser profile and CCTV images of the force main.

SMOKE TESTING AND DYE TESTING

ENGINEERS



SCIENTISTS



PLANNERS



Smoke testing is an effective and economical method of locating sources in a sanitary sewer collection system. PEER uses industry standard procedures to conduct smoke testing. Our technicians identify and document smoke emissions in a customized, relational database. We can format the smoke testing database to provide easy linking and referencing in GIS and to produce customized reports with detailed descriptive information and photographs for each observation.

PEER uses dyed water testing and other techniques to identify inflow sources including those that cannot be fully identified through smoke testing. These include inflows that enter the sewer system through leaks from ponded areas such as ditches and swales and flows from interconnected storm sewers and drains. When dyed water is observed in the sanitary sewer, but the source is not visible, PEER conducts CCTV inspections in conjunction with dyed-water flooding, as necessary, to fully identify the inflow source.

MANHOLE INSPECTIONS

ENGINEERS

• SCIENTISTS

• PLANNERS



Our staff conduct MACP compliant manhole inspections using pole cameras to avoid entering manholes, to save time and expense, and, most importantly, to minimize disruptions to the public. We create customized databases and reports to collect and report the data that you need. We take high quality inspection photos that can be formatted to fit your specifications.

Low Level Sewershed, City of Baltimore—PEER's experienced and trained field inspectors performed inspections on 3000 manholes in this sewershed. PEER documented manhole conditions (depths, pipe positions, structural and hydraulic issues, etc.) using pole cameras, photographs and laptops. PEER used a variety of databases and software applications including the City's preferred software and hardware tools to conduct inspections and generate reports in support of the sewer system evaluation.