CONSTRUCTION SERVICES INTERNATIONAL, INC.
- & -
CSI ENVIRONMENTAL, LLC


Statement of Qualifications
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CSI, Inc. & CSI Environmental, LLC
401 Headquarters Drive, Suite 203
Millersville, Maryland 21108
Phone: (443) 688-6453
Fax: (443) 688-6725
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CORPORATE SUMMARY

CORPORATE ORGANIZATION

Construction Services International, Inc. and CSI Environmental, LLC (collectively known as “CSI”) are sister companies which when combined create a multi-disciplinary organization that provides consulting, engineering, and construction services to private and public sector clients. At CSI, we strive to foster a positive work environment that encourages our personnel to provide innovative and cost-effective solutions to our clients using a flexible and adaptive corporate structure. CSI consists of three interconnected operating groups:

- Environmental Consulting, Engineering, and Site Remediation;
- Waste Water Treatment, Dredging/Solids Dewatering, And Biosolids Management
- Site Development and Construction of Environmental Remediation Systems

These interconnected operating groups were designed to allow CSI to provide expert services in multiple disciplines to fulfill the wide-range of needs our clients routinely request. Our clients rely on CSI to manage projects of all sizes and complexities, from remediation services that increase value at abandoned industrial sites (e.g., Brownfield redevelopment) to consulting services that ensure compliance for our clients and reduce the potential for regulatory penalties (e.g., HSE auditing). Using our innovative technologies for treating Waste Water and Waste Water Solids, CSI can treat contaminated waste water/ground water as well as reduce the cost and volume of waste requiring disposal. Additionally, our construction group is able to cost-effectively implement the plans prepared by our consulting and engineering staff (e.g., site remediation, industrial plant decommissioning, etc.) or independently perform construction-related projects in support of our clients (e.g., site work, utility installation, building demolition, etc.).

CSI was founded in 1989 and currently employs Civil and Environmental Engineers, Project Managers, Construction Foremen, Safety Professionals, Environmental Scientists, CADD and GIS Operators, Environmental Technicians, and Construction Laborers and Equipment Operators. CSI’s continued success has been achieved by recruiting dedicated and qualified personnel, investing in new equipment and technologies, and by adhering to our Key Principles.

“The mission at CSI is to maintain a client-first attitude by understanding our client’s concerns, objectives, resources, and exceeding expectations through adherence to our Key Principles.”
KEY PRINCIPLES

- Operate safe workplaces and actively support our clients to do the same. We and our subcontractors strive for a goal of NO accidents, injuries, unsafe work practices, or unsafe conditions.

- Work in compliance with applicable legal requirements related to environmental, health, and safety laws and regulations of the countries/states/cities in which we perform work.

- Strive to reduce waste and prevent pollution on all of our projects; not only to reduce costs, but also to protect our environment and adhere to general industry practices.

- Demonstrate our commitment to our clients through ethical behavior, personal responsibility, and accountability.

- Emphasize a total commitment to our clients through superior performance and continuous improvement practices. Continuous review of project activities allows us to identify cost savings opportunities, potential areas for increased efficiency, and other ways we can benefit our clients.

PRINCIPAL OFFICE LOCATIONS

401 Headquarters Drive
Suite 203
Millersville, Maryland 21108
Phone: (443)-220-9218
Fax: (443)-688-6725
cstevens@contactcsi.com

**Mr. Craig S. Stevens, P.G.**
Principal Hydrogeologist

PO Box 12
Harleysville, Pennsylvania 19438
Phone: (215) 703-0833
Fax: (215) 703-0835
hscheuren@contactcsi.com

**Mr. Herbert T. Scheuren, Jr**
Principal Engineer
We have performed a comprehensive array of projects regulated by federal and state programs, that range in complexity from site assessments through remedial actions at federal Superfund sites. At CSI, we have extensive experience with voluntary remediation and Brownfield initiatives. By integrating talented personnel across our operating groups, we have completed Brownfield redevelopment projects from the design through the build phase. CSI successfully completed the first cleanup and redevelopment of a state Superfund site in the Commonwealth of Pennsylvania’s Southeast Region through the Brownfield program.

CSI staff design and implement remedies for groundwater, soil, sediment, and surface water using innovative, cost-effective techniques. Some of the techniques we have used include:

- enhanced natural attenuation;
- bioremediation;
- in-situ chemical oxidation;
- passive reaction barriers;
- impermeable barriers;
- physical and chemical stabilization;
- soil vapor extraction;
- air sparging;
- conventional pumping and treating;
- recirculation and injection; capping.
- SPCC and SWPPP support
- regulatory permitting and HSE compliance support

Descriptions of a small number of recent projects completed by our Environmental Consulting and Engineering Group are provided in this section. For a more comprehensive listing, contact CSI regarding your specific needs.
SITE INVESTIGATION

One Remedial Investigation (RI) CSI successfully was completed at a former chemical manufacturing facility Superfund site in New Jersey. Detailed project plans included a focused investigation work plan, field sampling plan, quality assurance plan, and health and safety plan. Following the approved work plans, CSI completed the field work which included extensive soil, groundwater, sediment, and surface water sampling and soil vapor monitoring. We used innovative tools such as ultraviolet fluorescence and trilinear ion mapping to characterize site conditions. In addition to the intensive investigative work, we are also performing multiple other environmental projects at the site including vapor intrusion sampling/remediation in accordance with the latest US EPA guidance; balancing of the existing groundwater extraction and treatment system (GWETS) to ensure hydraulic containment of site-related constituents in groundwater; and Interim Remedial Measures (IRM) to replace aging sewers in the primary plant process area to reduce potential source area releases to the subsurface. CSI also provided technical assistance to client relating to a second IRM, to mitigate site-related constituents detected in sediments in a nearby tidal creek.

Upon completion of the RI field work, CSI assisted with development of a feasibility study (FS); Baseline Ecological Risk Assessment (BERA); and a Baseline Human Health Risk Assessment (HHRA). CSI also assisted the client in negotiating the scope of these activities with the US EPA and New Jersey Department of Environmental Protection (NJDEP).
CSI successfully completed comprehensive remediation of an 800-plus acre undeveloped site. Heavy metals contaminating the surface and subsurface were removed for a confidential client. A Remedial Action Work Plan (RAWP), was developed for this state Superfund site to provide a discussion of remediation methods and technology. Methods and technology consisted of a Field Sampling Plan, Quality Assurance Project Plan, a site-specific health and safety plan, and a detailed Remediation Plan. The RAWP was approved by state and local agencies in 2009. After implementation, remediation of soil began with the use of an x-ray fluorescence analyzer. To verify all waste material and impacted soil was removed, we implemented a comprehensive field sampling program. These soils were then stockpiled in a large staging area for characterization, proper transport, and disposal. In the end, 50,000 tons of hazardous soil/waste material were removed off site. Challenges faced in this project included heavy rainfall conditions which required CSI to control sediment and erosion caused by flooding. Our adaptability, preparedness, and collaboration from the design phase on provided the client with seamless project progress.
CSI performs environmental monitoring, environmental remediation system operation and maintenance for various clients across the mid-Atlantic. Environmental monitoring activities include, but are not limited to:

- Routine groundwater sampling for both open and closed landfills, and surface impoundments
- Groundwater, surface water, and drinking water sampling for corrective action sites
- Effluent monitoring for NPDES and industrial pretreatment program discharges.

Environmental monitoring activities are completed by trained personnel familiar with USEPA sampling protocols. All projects are completed in accordance with our corporate Quality Assurance Manual and project-specific Quality Assurance Project Plans. CSI has a full suite of environmental monitoring supplies from submersible groundwater monitoring pumps to field water quality meters.

CSI staff includes certified wastewater System Operators knowledgeable in remedial system operation and maintenance. We install and operate portable treatment systems designed to treat relatively small quantities of water (e.g., water generated from a leaking underground storage tank removal), to permanent systems used to treat millions of gallons a year; CSI has the capability of offering system operators and repair technicians.

Groundwater Monitoring

Construction and Installation of Remediation Systems
CSI Environmental, LLC is uniquely qualified to successfully treat both hazardous and non-hazardous waste water and solids. CSI has developed and patented low energy, low carbon footprint, cost-effective technologies for remediating liquid and solid waste streams. Whether it is removing contaminants from ground water or industrial waste water or reducing the volume of contaminated sludge requiring disposal, CSI staff has over 30 years of experience and proven technology in the development and deployment of advanced dewatering technologies and polymer systems. To date, CSI staff has installed and successfully operated over 1,200 sludge dewatering systems using geotextiles and advanced polymer systems. A 2017 International Achievement Award was won by CSI for the performance of these advanced technologies.

CSI owns and operates dredges and employs experienced and skilled operators to perform dredging and sludge dewatering projects of varying magnitudes. However, it is our proprietary dewatering capabilities that are unmatched and set our firm apart as innovative leaders in de-watering technology/applications. Patented membrane and polymer technologies enable CSI to achieve solids dewatering and reduction in the volume of sludge requiring disposal cost-effectively.

Current technologies are continuously advancing to improve upon dredging projects. This R&D base has given CSI staff, ranging from field technicians, equipment operators, hydro geologists through its Ph.D. and certified engineering level scientific staff, the breadth and depth of experience to design, implement, and trouble shoot complex dewatering and dredging projects. CSI currently provides these services to a wide range of clients throughout the environmental and industrial sectors.
Contaminated Water from Acid Mine Drainage

**Acid mine drainage (AMD)** presents numerous challenges that require the depth of knowledge and expertise provided by CSI. While working in concert with the numerous private and state agencies including PaDEP’s Active and Abandoned Mines Division, CSI has effectively treated water contaminated by AMD. Utilizing CSI’s innovative treatment process, AMD successfully treated to remove heavy metals and achieve pH neutrality in accordance with PaDEP NPDES requirements. Several AMD demonstration projects were successfully completed by CSI leading to a long-term developmental AMD treatment program in the southern portion of the anthracite region.

**Industrial waste water treatment** projects can greatly benefit from using CSI’s Geotextile Tubes and Advanced Polymer Systems. For over twenty years, CSI has dewatered and treated industrial waste water settling lagoons, and waste water for a variety of clients such as waste water treatment facilities, steel industries, paper industries, the food and beverage industry, and petroleum industries. Our custom-built polymer delivery systems, and high flow 3-dimensional Woven Geotextile Tubes, and inventory of cationic and anionic polymers surely can dewater and treat the waste water of most industries.
EXAMPLES OF INNOVATIVE WASTE WATER TREATMENT

Treatment of Waste Water from The Hydraulic Fracking Industry

Horizontal drilling slurry treatment is crucial at hydraulic fracturing sites for the recycling of contaminated water. Beginning in 2015, CSI began treatment of a hydraulic fracturing retention pond for RICE Energy. To recycle 1.2 million gallons of fracturing water, CSI utilized their highly effective 3-D woven Geotextiles. These tubes allow CSI to handle 3 times the flow of traditional monofilaments, and in concert with CSI’s advanced polymer usage, no wastewater challenge is out of our scope. CSI technology, using 3-dimensionaly woven geotextile tubes and advanced polymers, was used to treat rad waste contained in the RICE Energy fracturing waste water lagoon and reduce waste volume requiring disposal. Total solids dredged from the lagoon were dewatered and thereby increased from 8% to 65% allowing the energy company to eliminate the need for using a bulking agent to solidify the waste. This reduction in volume of solids requiring disposal resulted in saving the energy company several hundred thousand dollars in waste disposal costs. In addition, CSI’s effluent water from the dewatering process using geotextile tubes was clean enough for reuse in the fracking process resulting in further cost savings.

Treating Municipal Waste Water Sludge

CSI technology was used to economically and efficiently dewater and reduce the volume of sludge requiring disposal at a municipal water treatment plant in Baltimore, Maryland. Alum sludge from a waste water settling lagoon at the Baltimore, Md municipal water treatment plant had to be dredged and dewatered rapidly to accommodate further construction at the water plant. Traditional dewatering press technology was deemed too expensive and too slow a process for the project. Using CSI dredging, and geotextile technology, the project was completed in a short period of time and under budget.
CSI closed a lagoon by stabilizing sludge, dewatering, and then capping the lagoon. Cement kiln dust was used to stabilize the sludge, and then CSI constructed a two-acre asphalt cover system over the then stabilized sludge. Also included in the lagoon closure were the challenge of dewatering trenches, and the installation of under drain piping and collection slumps. To a depth of 25 feet, slumps and trenches were dug through the stabilized sludge while using telescoping trench boxes for sidewall stabilization. Once again, our geotextile filter fabric was used to wrap horizontal piping, and also to filter run off in the trenches. To then backfill these trenches and slumps, number 4 ballast was used to improve stability. Finally, each trench was capped with a two-foot-thick clay layer, prior to the asphalt cap installation.

Capping and Closure of a Wastewater Lagoon
CSI was retained to perform all site work associated with the relocation of the Liberty Bell from its former location to the current Liberty Bell Pavilion located between Market Street and Chestnut Street facing Independence Hall in Philadelphia, Pennsylvania. CSI was retained by the general contractor, Daniel J. Keating Company, to perform the site work on behalf of the National Parks Service. CSI was the successful bidder on Phase I, II, and III. Phase I involved the demolition of existing structures, site grading, excavation of utility trenches, de-watering of utility trenches, and installation of underground utilities. Phase II entailed the completion of a high-end landscape package to beautify Independence Hall, which was a critical component of the Liberty Bell Pavilion project. Site work completed by CSI during Phase II includes extensive site grading, utility upgrades and relocation, supplemental demolition, paving and concrete work, and installation of water lines. CSI also performed numerous closings of major streets adjacent to Independence Hall to complete utility connections and finalize sub-grade site work. The road closures and utility installation involved a complicated planning and permitting process. Phase III entailed additional expansion of site development activities associated with Phase II renovations to Independence Hall.
CSI completed a massive project consisting of the closure of seven fluorspar and lead mines and three mills in Rosiclare, Illinois. The project included mine closure, mill decommissioning, demolition, environmental sampling, and groundwater investigations. In addition, approximately 71,000 tons of lead-impacted soils and 400,000 pounds of PCB-containing transformers were removed, transported, and disposed of off-site. We also performed remedial construction tasks which included excavation and disposal of 4,000 cubic yards of refuse, drum handling and disposal, UST and AST removal, and tailings pond slope evaluation. A tailings pond de-watering study was performed to develop a strategy for stabilizing the retaining berms that had started to slough. CSI continues to provide environmental consulting to the municipality as part of this ongoing project.
REPRESENTATIVE PUBLICATIONS/PRESENTATIONS

Airport Executives Symposium, Radisson Hotel, Columbus, Ohio, April 1990. Gave presentation entitled, “Hydrocarbon Releases: Assessment and Remediation.”


CSI Environmental, LLC. 2010. “Groundwater monitoring Plan For The NL Industries Superfund Site, Pedricktown, NJ”.


CSI Environmental, LLC, Staff. 2014. “Clonmell Creek Sediment Treatment Pilot Study Work Plan”. Hercules, Inc., Former Higgins Plant Superfund Site, Gibbstown, NJ.

CSI Environmental, LLC, Staff. 2014. “Treatment Of Acid Mine Influenced Water”. Hydration Company Of Pa, LLC.

CSI Environmental, LLC, Staff. 2014. “Treatment Of Flowback, Production, And Cuttings fluids In The Oil And Gas Industry--- Development Of A Treatment System For Water Reclamation And Volume Reduction Of Solids”. Reclaim Resources, LLC.

CSI Environmental, LLC, Staff. 2015. “Development and Field Demonstration for Treatment and Remediation of Acid Mine Influenced Water”. Prepared for Hydration Company of PA, LLC.


U.S. Environmental Protection Agency, Record of Decision Amendment, NL Industries Inc. Superfund Site, Pedricktown, Salem County, New Jersey, September 2011.

