



**Dedicated to our clients**  
**Senior-level expertise**  
**Commitment to excellence**  
**Honest and ethical business practices**  
**Sustainable solutions for the environment**



3000 Youngfield Street, Suite 300, Wheat Ridge, CO 80215  
303.274.5400 x19 ♦ [www.pwt.com](http://www.pwt.com)



PWT is the  
U.S. Small Business  
Administration  
Region 8  
Prime Contractor  
of the Year

PWT's President, Ding-Wen  
Hsu, accepts the 2009  
SBA Region 8 Small Business  
Prime Contractor of the Year  
Award at a ceremony  
in Washington, D.C.

## ABOUT PWT

PWT is a small, full-service environmental engineering company with more than 25 years of experience providing the full suite of environmental management, consulting, compliance, facility, construction, and data-management services.

Incorporated: 1987  
Headquarters: Denver Metro Area  
Main Phone: 303.274.5400 x19

NAICS:  
541620 - Environmental Consulting Services  
562910 - Environmental Remediation  
541330 - Engineering Services  
561210 - Facilities Support Services  
541512 - Computer System Design Services  
541513 - Computer Facility Management  
541519 - Other Computer Related Services

## WHAT OUR CLIENTS SAY ABOUT US

PWT "has been very responsive to changes in schedule and deliverables by EPA. (PWT) was very flexible and met sometimes short turnaround dates." - *CPAR, EPA RAC2 Region 8 Contract, 2012*

"PWT has maintained an outstanding rating in our monthly contract evaluations every month for about 10 years. I have worked on Superfund sites for over 22 years and at RMA for 16 years and never had a contractor as good as PWT." – *Greg Hargreaves, Remedial Program Manager, Rocky Mountain Arsenal, December 2011*

Mr. John William (Bill) Pancake of PWT ... has shown that a business can operate successfully, when done right the first time." - *Mr. Brad Camp, Directorate of Public Works, Environmental Division Support Branch Chief, Fort Carson, Colorado, April 2012*

PWT "did an exceptional job in anticipating any potential contract problems and coming up with potential ways to minimize risks. Contractor is very pro-active in asking questions and providing input ... and comes up with creative and expedited ways to address issues." - *CPAR, EPA RAC2 Region 8 Contract, 2012*

"The level of service and dedication provided by PWT in the areas of system administration, cyber security, desktop support and call center have consistently exceeded expectation, allowing the contract to surpass all quality benchmarks for three straight years." - *Western Area Power Administration subcontract, Andy Hartman, VP, Vision Technologies, 2012*

"I would like to ... recognize the FHWA Optimization Study Team (including three PWT personnel). ... They performed a systemwide analysis of the FHWA contaminated ground water treatment plant system. Through this analysis they developed innovative options which would meet current regulatory requirements, reduce or eliminate new capital programs, and lead to ... a 74 percent cost reduction when fully implemented. This translates to over \$2,700,000 savings over a 10-year time period." - *John C. Kleinschmidt, PG, RG, GSA Denver Federal Center Environmental Program Manager; June 2012*

## SERVICE AREAS

### Environmental Solutions

Management, planning, investigation, design, remediation, compliance, operation and maintenance

### Engineering Solutions

Civil and geotechnical engineering

### Hydrology and hydrogeology

Investigations, design, modeling, compliance

### Facility Management

Operations, management, compliance, construction management

### Geospatial Information Systems

Consulting, design, development, operations

### Information Technology Solutions

Consulting, staffing, operations, security



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## MAJOR FEDERAL CLIENTS

- ◆ Environmental Protection Agency
- ◆ Department of Defense
- ◆ Department of Transportation
- ◆ General Services Administration
- ◆ Department of Energy
- ◆ Department of the Interior
- ◆ Department of Homeland Security

## WHY PWT

- ◆ Full-service environmental engineering firm
- ◆ Award-winning services as a prime contractor on contracts ranging from \$5 million to more than \$230 million
- ◆ Senior-level leadership and expertise
- ◆ Nationwide capability
- ◆ Large enough to handle everything from the smallest job up to large, multi-year, multi-million dollar projects
- ◆ Small enough to be flexible and responsive
- ◆ Customized approach for each client
- ◆ Proven excellent customer service and satisfaction
- ◆ High employee retention

## GSA SCHEDULE GS-00F-0002M



### **C899 1 - C899 1RC**

Environmental Consulting Services

### **C899 7 - C899 7RC**

GIS Services

### **C899 8 - C899 8 RC**

Remediation and Reclamation Services

### **C874 1 - C874 1RC**

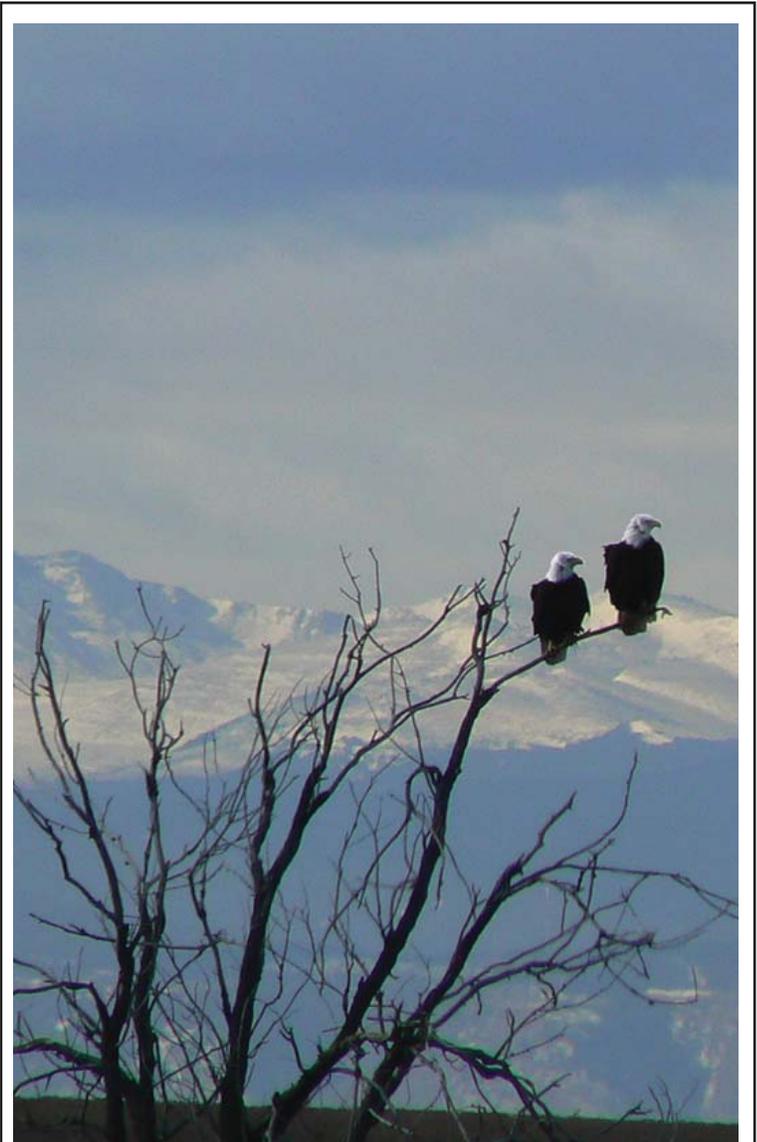
Consulting Services

### **C874 7 - C874 7RC**

Program and Project Management

### **C132 51 - C132 51RC**

IT Professional Services

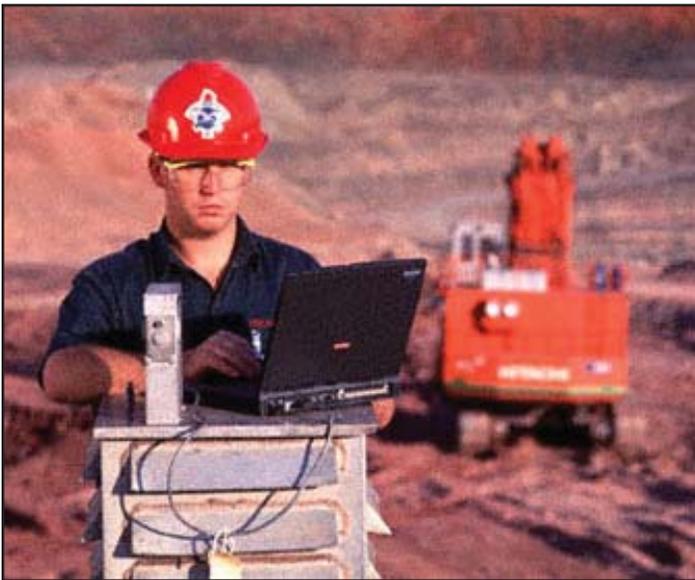


Since 2002, PWT has supported EPA providing oversight of the Army's cleanup of the Rocky Mountain Arsenal (RMA), a former munitions, nerve-gas, and pesticide manufacturing facility. During that time, more than 15,900 acres of the original 16,990-acre site has been deleted from the National Priorities List, with the majority of that land being designed a National Wildlife Refuge. PWT was awarded the third consecutive (RMA) contract in 2013.

## PROGRAM MANAGEMENT

PWT's comprehensive approach improves project cost and schedule while maintaining the highest standards of quality and safety.

- ◆ Program, project management
- ◆ Conduct of operations
- ◆ Project controls
- ◆ Environmental, health, and safety
- ◆ Quality engineering and QA/QC
- ◆ Regulatory compliance / permitting / negotiations
- ◆ Procurement planning/subcontract management
- ◆ Independent audits / assessments
- ◆ Document, records management



Representative program management projects:

PWT is the prime contractor on this \$232 million RAC contract providing remedial action and oversight at CERCLA sites across EPA Region 8 and in Region 9. PWT has received 20 work assignments ranging in value from \$35K to \$7.2M, including management of construction subcontractors and receiving "excellent" client ratings for the entire 5-year base period of the contract.

Services include program management, site management, remedial investigation and feasibility studies, remedial design, construction management, subcontractor acquisition and oversight, engineering evaluation and cost analyses, enforcement support, regulatory compliance, community involvement, sampling and analysis, risk assessment, five-year reviews, and operations and maintenance.

PWT completed the 5-year base period and was awarded the 5-year option by the EPA in 2011.

## ENVIRONMENTAL CONSULTING

PWT provides fully integrated environmental remediation services from investigation and design through construction and operations & maintenance.

- ◆ Remedial investigation/feasibility studies
- ◆ Engineered remedial design / Remedial action
- ◆ Risk assessment
- ◆ Engineering evaluation and cost analysis
- ◆ Construction remediation management
- ◆ Data management, GIS
- ◆ Operation and maintenance of remedial systems
- ◆ Regulatory compliance, negotiations support
- ◆ Public participation, community involvement



Representative environmental consulting projects:

PWT provided enforcement/oversight services to the EPA for oversight of all RD/RA activities at the Rocky Mountain Arsenal Superfund site.

PWT assisted EPA with community involvement including multiple National Priorities List site deletions and property transfers; reviewed design and analysis documents to ensure regulatory and technical compliance; wrote draft technical comments, and provided quality assurance/quality control of deliverables,

PWT conducted the most recent five-year review; provided field oversight for remedial action construction, participated in pre-final/final inspections; reviewed all remedial design/remedial action records and construction completion reports; evaluated, planned, and implemented innovative remedial technologies; implemented EPA's split-sampling programs; provided data management and GIS mapping; and provided regulatory, negotiation, and technical meeting support.

PWT was awarded follow-on contracts in 2008 & 2013.

## INVESTIGATIONS and STUDIES

PWT conducts environmental investigations to characterize the nature and extent of hazardous materials at sites of potential contamination.

- ◆ Remedial investigations / feasibility studies
- ◆ Pre-design investigation
- ◆ Data collection and analysis
- ◆ Sampling and data validation
- ◆ Geology/hydrogeology site characterization
- ◆ CERCLA, NEPA, OSHA services
- ◆ Planning and documentation
- ◆ Conceptual site models
- ◆ Phase I and II environmental site assessments



Representative investigation and studies projects:

PWT is providing RI/FS support on the U.S. Magnesium Superfund Site in Montana. PWT is part of a multi-disciplinary team of sampling, design, geoscience, toxicology, and risk-assessment experts who are developing the sampling strategy. PWT prepared the SAP to address soil, sediment, waste, groundwater, surface water, and air to evaluate the nature and extent of contamination and obtain risk characterization information.

At the Rocky Mountain Arsenal, PWT provided technical services for numerous site investigations for contaminated soil, groundwater, LNAPL, and DNAPL. PWT was instrumental in contributing to an updated conceptual site model for waste disposal ditches at which contamination extended beyond the immediate banks of the ditches due to historical dredging and spreading of ditch sediments, and which led directly to additional remediation of contaminated soil.

At Vasquez Superfund Site, PWT conducted an RI/FS for cadmium and arsenic-impacted groundwater and potential smelter source areas, and preparation of the ROD.

## REMEDIAL DESIGN

PWT identifies client priorities to develop customized remedial design or evaluation that considers effectiveness, implementability, cost, schedule, risk, and liability.

- ◆ Feasibility studies / engineering evaluations
- ◆ Design and optimization of remedial systems
- ◆ Remedial alternatives and innovative technologies
- ◆ Treatability studies and pilot tests
- ◆ Permitting
- ◆ Regulatory liaison and negotiations
- ◆ Engineering cost estimates
- ◆ Construction contractor acquisition, administration
- ◆ Construction management



Representative remedial design projects:

PWT finalized the design and constructed the system to treat contaminated groundwater at Bountiful/Woods Cross Superfund site in Utah. The system consists of four extraction wells, 7,000 feet of groundwater extraction piping, and a 100 gpm activated carbon treatment system. PWT, in conjunction with EPA, eliminated double-containment piping from the design, saving \$500K and allowing the use of boring techniques rather than trenching, reducing surface disturbance and reducing installation time by several weeks.

PWT conducted technical oversight of the remedial design, construction, and monitoring for three major precedent-setting RCRA-equivalent evapotranspiration/capillary break covers over contaminated waste at the Rocky Mountain Arsenal. Work included comprehensive review of 10 major design packages that included technical input from seven PWT technical leads, two world-renowned soil cover experts, and a restoration ecology expert. PWT developed technical rationale for establishing rigorous QA/QC criteria and independent PE certification for construction, and developed monitoring concepts for EPA/PRP negotiations.

## CONSTRUCTION MANAGEMENT

PWT provides fully integrated owner's representative design/construction management services to assist owners from concept through construction.

- ◆ Project concept / feasibility studies
- ◆ Budgeting & scheduling
- ◆ Design and oversight
- ◆ Contractor selection, contract administration
- ◆ Construction management
- ◆ Pollution prevention
- ◆ Community Right-to-Know Act reporting
- ◆ Project documentation
- ◆ Environmental / geotechnical studies



Representative construction management projects:

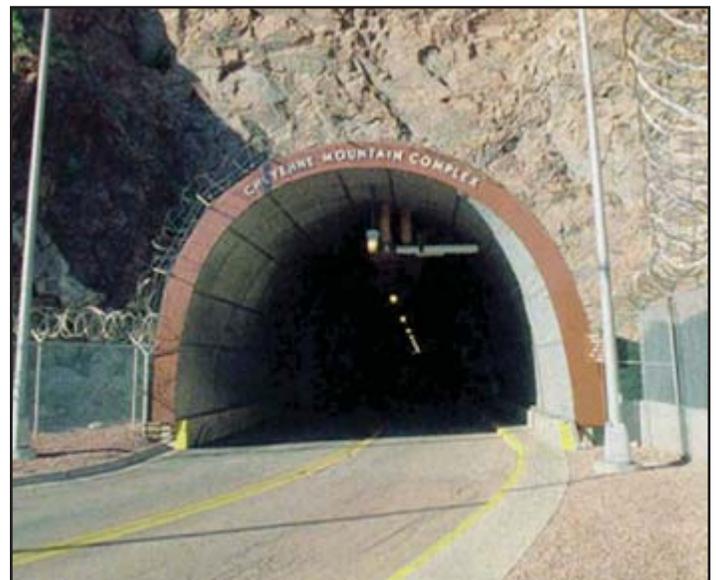
PWT has provided oversight of implementation at the Rocky Mountain Arsenal, including remediation of contaminated soil through excavation, consolidation and landfilling; in-situ bioremediation and in situ thermal destruction; groundwater treatment for solvents, pesticides, arsenic, and NDMA; LNAPL and DNAPL characterization and remediation; decommissioning and demolition of former manufacturing and industrial facilities; construction, operation, and closure of a double-lined and triple-lined hazardous waste landfills; and construction of slurry walls installed by deep soil mixing.

At Gilt Edge Mine in South Dakota, approximately 3,000 linear feet of diversion ditches were cleaned of rock, rip-rap, and other loose debris; 1200 boreholes were drilled to an average depth of 20 feet and pressure grouted by injecting concrete to seal joints, cracks, and fractures; and an additional 1000 feet of ditches were lined with an impermeable geomembrane to help reduce infiltration. PWT also managed storm water runoff.

## FACILITY OPERATION & MAINTENANCE

PWT provides a broad range of facility operation, management, and continuity of operations services.

- ◆ Regulatory compliance, monitoring, permitting, audits
- ◆ EMS and waste minimization
- ◆ Spill prevention, control, countermeasure plans
- ◆ Hazardous waste and materials management
- ◆ Health, safety, industrial hygiene
- ◆ Risk evaluation, planning, management
- ◆ Civil / O&M engineering
- ◆ Maintenance management
- ◆ Information & database management, GIS
- ◆ Asset / real property management



Representative facility O&M projects:

PWT implemented the environmental protection program; developed and implemented an occupational health and industrial hygiene plan; and maintained compliance with the facility air, water, NPDES, and RCRA permits for the Cheyenne Mountain complex for the U.S. Space Command. PWT also provided QA management for the team and ensured compliance with applicable NEPA requirements and the Integrated Natural- and Cultural-Resources Plans.

PWT monitored and operated the Standard Mine Superfund Site pilot-scale biochemical reactor with an aerobic polishing cell that treats adit mine discharge with varying flow conditions, and evaluated full-scale remedial alternatives as part of the feasibility study.

PWT identified minimum O&M requirements, and aided EPA in developed negotiation strategies and monitoring options to ensure the PRP developed plans that defined comprehensive monitoring, operations, and maintenance requirements for long-term management of waste contaminant and groundwater treatment.

## CIVIL & GEOTECHNICAL ENGINEERING

PWT evaluates subsurface soil conditions and develops solutions on all phases of project development to turn complex site conditions into optimal solutions.

- ◆ Feasibility studies / engineering evaluations
- ◆ Design and optimization of remedial systems
- ◆ Foundation and slope-stability investigations
- ◆ Design of mitigation plans
- ◆ Design of foundations and dams
- ◆ Design of roadways, pavement systems, bridges
- ◆ Engineered remedial designs
- ◆ Computer design simulation and modeling
- ◆ Water-supply development



Representative engineering projects:

At the Gilt Edge Superfund Site, the original remedial design for the geomembrane liners was modified to accommodate the highly fractured rock and steep slopes of the drainage ditches.

PWT oversaw preparation of work plans and geophysical characterization and recovery of munitions and ordnance including UXO and MEC, and explosives on hundreds of acres of former testing ranges, demolition areas, and ordnance disposal sites at the Rocky Mountain Arsenal.

Other projects include geotechnical reconnaissance and investigations for siting, recommendation of foundation design, and construction inspection for hazardous waste incinerators; supervision of pile-load testing and data interpretation for structural design of refinery process units; settlement evaluations of proposed sites and design of liners and cover systems for disposal of radioactive, hazardous, and toxic waste; and determining design loads, haulage frequencies, and other constraints, and design heavy-construction access roads.

## HYDROLOGY & HYDROGEOLOGY

PWT hydrologists and hydrogeologists provide investigation, analysis, design, and modeling to control and protect surface and groundwater conditions, minimize impacts, and restore areas of past impact.

- ◆ Hydrologic / hydrogeologic investigations
- ◆ Design of runoff- and sediment-control features
- ◆ Design of stream-channel improvements
- ◆ Flood plain determinations
- ◆ Surface and groundwater investigations
- ◆ Surface water, groundwater, water quality modeling
- ◆ Dewatering system design
- ◆ Preparation of regulatory compliance documents



Representative hydrologic and hydrogeologic projects:

PWT performed a hydrogeological and geochemical performance evaluation of a zero-valent iron permeable reactive barrier for shallow groundwater contamination at the Denver Federal Center. This included an innovative graphical analysis of contaminant concentration ratios to define groundwater flow. PWT also provided background geochemistry evaluations along with initial review of project data. Assessment of hydrologic and water-quality conditions at 30 coal and mineral mining operations.

PWT provided environmental services to GSA since 1999.

Other projects include design of long-term monitoring programs at 5 mineral and coal mines to assess future hydrologic impacts; evaluation of 15 years of monitoring data from refinery, manufacturing, and mining facilities to determine long-term hydrologic impacts and monitoring approach; groundwater flow modeling to assess impacts from a 16 million ton-per-year surface coal mine; and modeling of contaminant transport in a fractured bedrock aquifer to assess remediation alternatives at a uranium mill.

## GEOGRAPHIC INFORMATION SYSTEMS

PWT implements geospatial solutions to visualize data in powerful new ways.

- ◆ Consulting, acquisition, design, implementation
- ◆ Data collection and acquisition
- ◆ Geospatial data management services
- ◆ Legacy GIS conversion
- ◆ Enterprise solutions
- ◆ Geospatial web solutions
- ◆ GIS outsourcing
- ◆ GIS emergency preparedness and assessment



Representative GIS projects:

PWT inventoried roadways nationwide for the U.S. Fish and Wildlife Agency, the National Park Service, and within the 18 states of the Central Federal Lands and Western Federal Lands divisions of the Federal Highway Administration. PWT provided the technical team to run the complex road-inventory data-collection equipment, supported geospatial technologies and computer programming to automate and conduct quality assurance tests on collected and aggregated data, and researched and developed low-cost solutions and products that can be integrated into the current data model.

PWT has provided these services since 1999.

On multiple projects, PWT maintains and updates GIS shapefiles to construct specific needs maps used monitor and direct the cleanup actions. We combine RI data with remedial action assessment information with other physical and chemical contaminant criteria (soil, groundwater) to identify and locate soil samples, verification samples, survey data (appropriate grade for excavation.)

## INFORMATION TECHNOLOGY

PWT provides total IT services to optimize, upgrade, operate, staff, support, and secure IT systems.

- ◆ IT outsourcing
- ◆ Consulting and project support
- ◆ IT staff augmentation
- ◆ Network design and optimization
- ◆ IT managed services
- ◆ Help desk solutions
- ◆ Software solutions
- ◆ Cyber security
- ◆ Project data management / analytical databases



Representative IT projects:

PWT was the prime and sole contractor to the DOE Western Area Power Administration providing IT support to Western offices in Colorado and regional offices throughout the fifteen states served by Western.

Support services included applications software support, call center help desk tier 1 and Tier 2 support, computer center operations, desktop support, configuration management, systems administration, cyber security, and database administration.

PWT also provided systems administration support for the Office of Design in the CSO. Typical work included specialized maintenance and administration support for computer systems in drafting, project design, drawing archives, and GIS.

PWT has performed these services since 2004. PWT and our teaming partner won the follow-on contract in 2009.