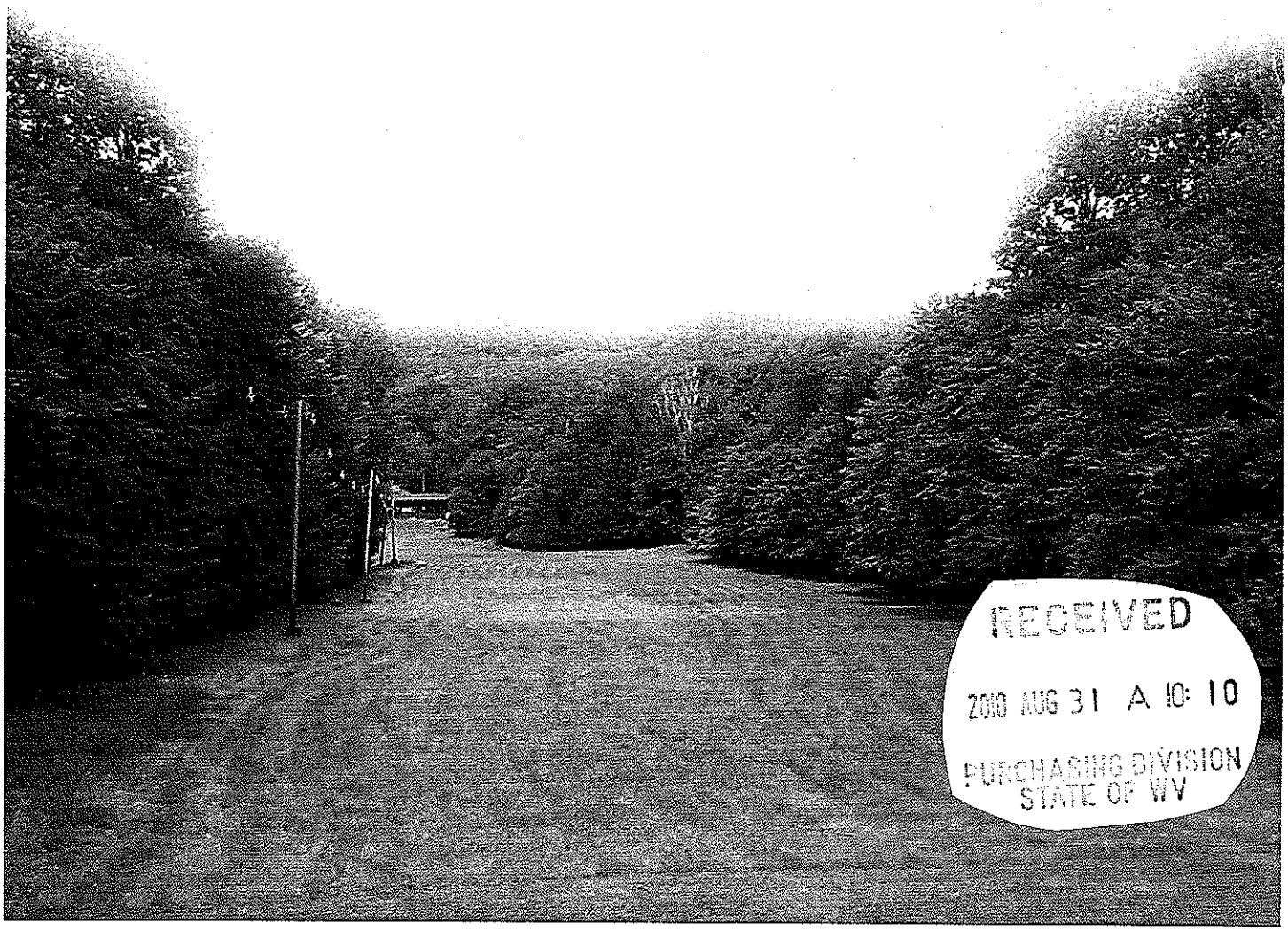
Expression of Interest for the
West Virginia Department of Natural Resources for the
Sled Run Improvements At
Blackwater Falls State Park

RFQ DNRB11013

September 2, 2010

Chapman
Technical
Group



Chapman Technical Group

September 2, 2010

Department of Administration
Purchasing Division
Building 15
2019 Washington Street, East
Charleston, West Virginia 25305-0130

Re: A/E Services for Blackwater Falls State Park Sled Run Improvements
RFQ DNRB11013

Dear Selection Committee:

Chapman Technical Group is most interested in providing the engineering and landscape architectural services for the design of the improvements to the sled run area at Blackwater Falls State Park. Having completed the preliminary design of the improvements as part of the Blackwater Falls Cabin project, we are very familiar with all of the requirements and issues of the project. In addition, we have strengthened our project team with the inclusion of two specialty consultants to address the water supply requirements and the design of the surface lift or tow system.

Joining our team to assist with the design of lift system is **Stevens Engineering**. With nearly 30 years experience, Stevens Engineering is recognized throughout North America for their lift planning and design expertise. **Groundwater Science** has extensive experience in the design of groundwater supply systems and will assist Chapman Technical Group in determining the placement of wells and determining what kind of production we might expect. We will likely use the same electrical consultant that completed the preliminary design work with the cabin project. Having completed geotechnical engineering with the cabin project, we do not anticipate the need for additional geotechnical engineering.

Having designed many projects for the WV State Parks, including the current cabin project at Blackwater Falls, we are familiar with State Parks' procedures, desires and goals. With every project we develop we continue to learn and we'll take our experiences from past projects to develop an even better project at Blackwater Falls.

All West Virginia State Parks are special places which are sometimes taken for granted by state residents. With its location near the Canaan Valley ski resorts and its unique natural features, Blackwater Falls will continue to draw visitors from all over the eastern United States. While the demand for more facilities no doubt is the impetus for this project, it is critical that the facilities be developed in

200 Sixth Avenue
St. Albans, WV 25177
304.727.5501
FAX 304.727.5580
Buckhannon, WV
Martinsburg, WV
www.chaptech.com

such a way that minimizes the construction footprint and maximizes the natural beauty of the park. Chapman Technical Group's landscape architects and engineers will work together to carefully craft the design package to accomplish these goals.

Our main office is in St. Albans and that is where the design work will be performed, but we also maintain a fully functioning office in Buckhannon. We have completed several projects for the Towns of Davis and Thomas and are constantly working in the area. You can be assured that we will be available at the project site on short notice and can be available to whatever extent is required during the critical construction phase.

You will find all of the requested information regarding our firm and our ability to execute the requirements of this project within this submittal. We would very much appreciate the opportunity to present our project team and further discuss your project. In the meantime, if you have any questions or need additional information, please contact me.

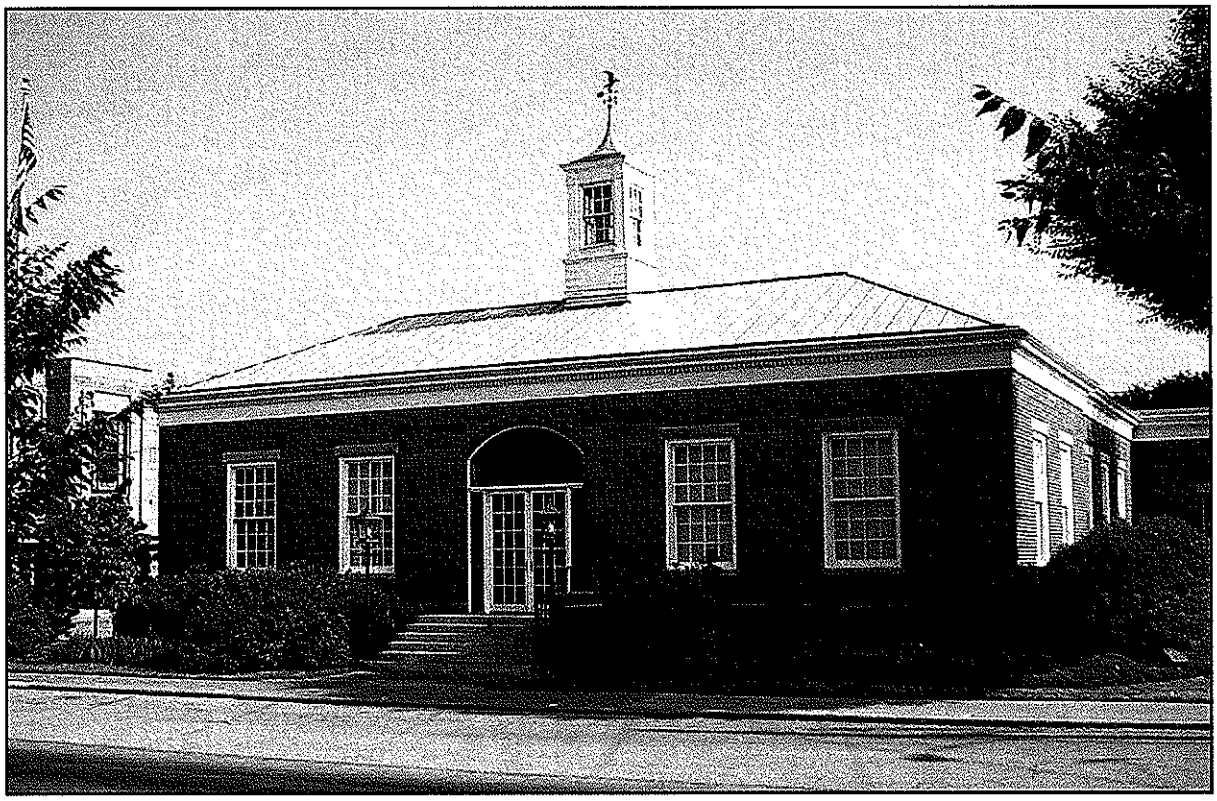
Sincerely,

CHAPMAN TECHNICAL GROUP

Joseph E. Bird, ASLA
Vice President

Chapman Technical Group

Company Overview



Chapman Technical Group's St. Albans Office

Chapman Technical Group is a full-service consulting firm with offices in St. Albans, Buckhannon, and Martinsburg, West Virginia offering an extensive range of professional architectural, engineering, interior design and landscape architectural services. Established in 1984, Chapman Technical Group has steadily grown to a diverse firm of professionals, many of whom were educated in West Virginia colleges and universities. We have achieved an outstanding reputation for providing high-quality design projects, while meeting client schedules and budgets and have received numerous awards for our work.

Our facilities are both state-of-the-art and architecturally significant. Our St. Albans office is a former post office and is now on the National Register of Historic Places.

Chapman Technical Group offers a broad range of professional services.

- Airport Design
- Architecture
- Civil Engineering
- Fire Pumping & Protection
- Interior Design
- Landscape Architecture
- Recreational Facilities
- Roads, Highways, & Bridges
- Site Development
- Space Planning
- Surveying
- Water & Wastewater Systems

Awards

AMERICAN INSTITUTE OF ARCHITECTS - MERIT AWARD FOR EXCELLENCE IN ARCHITECTURE, 2009 - Interstate 79 Rest Areas.

AMERICAN SOCIETY OF CIVIL ENGINEERS - NATIONAL - SUPERIOR EMPLOYER AWARD, 2009, Support of Young Professionals in the Private Sector.

AMERICAN COUNCIL OF ENGINEERING COMPANIES-WV - ENGINEERING EXCELLENCE AWARD, 2009, Gold Award - Special Projects Category for the Mercer County Airport Runway Safety Area Project.

AMERICAN INSTITUTE OF ARCHITECTS - HONOR AWARD FOR EXCELLENCE IN ARCHITECTURE, 2008 - Upshur County Courthouse Restoration and Renovations.

AMERICAN COUNCIL OF ENGINEERING COMPANIES-WV - ENGINEERING EXCELLENCE AWARD, 2008, Bronze Award - Wastewater Category for the Spring Run State Fish Hatchery Improvements.

AMERICAN COUNCIL OF ENGINEERING COMPANIES-WV - ENGINEERING EXCELLENCE AWARD, 2007, Silver Award - Structures Category for the Mercer County Airport Runway Safety Area Project.

GARY KING COMMUNITY SERVICE AWARD, 2006. **GOOD SCOUT RECIPIENT**, 2005.

AMERICAN COUNCIL OF ENGINEERING COMPANIES-WV - ENGINEERING EXCELLENCE AWARD, 2003, Gold Award - Water Treatment Category for the City of Fairmont Water Treatment Plant Project.

AMERICAN COUNCIL OF ENGINEERING COMPANIES-WV - ENGINEERING EXCELLENCE AWARD, 2002, Gold Award - Transportation Category for the Raleigh County Memorial Airport Runway Rehabilitation Project.

WINNER - "COMMISSIONER'S ENGINEERING ACHIEVEMENT AWARD", 2000, The WVDOT - Division of Highways - Large Bridge Category for WV10 Buffalo Creek Bridge, Logan County, West Virginia.

FINALIST - "COMMISSIONER'S ENGINEERING ACHIEVEMENT AWARD", 1999, The WVDOT - Division of Highways - Large Roadway Category for WV10 Buffalo Creek - Taplin Project and 2000 for WV10 Buffalo Creek - Huff Junction Project, both in Logan County, West Virginia.

AMERICAN COUNCIL OF ENGINEERING COMPANIES-WV - ENGINEERING EXCELLENCE AWARD, 1999, Silver Award - Water and Wastewater Category, for the City of Beckley Piney Creek Wastewater Treatment Plant Project.

ENTREPRENEUR OF THE YEAR AWARD - FINALIST, 1999 and 2000, Sharon L. Chapman, President, was named one of twenty finalists in the West Virginia Area Entrepreneur of the Year Award. Sharon was recognized for leading Chapman Technical Group to become one of the most highly regarded engineering firms in the state after the death of her husband and company founder, Harvey R. Chapman.

"EXPECT THE BEST FROM WEST VIRGINIA AWARD", 1998, Charleston Regional Chamber of Commerce. The Expect the Best program was created to recognize West Virginia businesses and organizations that promote quality of life at home, work, and in the community so that individuals and organizations will implement quality principles and practices leading to unprecedented pride and economic growth in West Virginia.

HONOR AWARD, West Virginia Chapter of the American Society of Landscape Architects, 1994, Shrewsbury Street Area Redevelopment Plan, for excellence in planning and design projects. Joseph E. Bird, ASLA, Project Manager.

"GOVERNOR'S AWARD FOR ENGINEERING EXCELLENCE", 1990, The West Virginia Chapter of the American Public Works Association, in recognition of outstanding Public Works Engineering and Design of Projects within West Virginia.

DUNDEE CEMENT COMPANY ANNUAL DESIGN AWARD, 1988, Yeager Airport Taxiway Overlay Project. Harvey R. Chapman, P.E., Project Manager.

AUSTIN C. PALMER "OUTSTANDING FACILITY DESIGN AWARD", 1988, City of Bridgeport Swimming Pool Complex. Harvey R. Chapman, P.E., Project Manager.

"GEORGE WARREN FULLER AWARD", Harvey R. Chapman, P.E., 1984, Robert G. Belcher, P.E., 2001, and Sharon L. Chapman, 2005, Jeffery D. Ekstrom, P.E., 2010, American Water Works Association, for distinguished service in the water supply field in the State of West Virginia.

Key Personnel

Blackwater Falls State Park

Chapman Technical Group

Project Management

Joseph E. Bird, ASLA

Site Design: Civil Engineering/Landscape Architecture

Joseph E. Bird, ASLA
Robert G. Belcher, PE
Robert D. Dinsmore, Project Designer

Architectural Design

W. Thomas Cloer, III, AIA, NCARB

Water System Engineering

Stephen M. Johnson, PE

Mechanical/Electrical Engineering

David L. Skeen, PE

Hydrogeology and Well Design

Smith-Comeskey Ground Water Science

Lift Station Design

Stevens Engineering
Ross Stevens, PE

JOSEPH E. BIRD, ASLA
Senior Vice President
Project Manager

EDUCATION

West Virginia University, BSLA, 1978

REGISTRATION

Landscape Architect, West Virginia, 1981

PROFESSIONAL HISTORY

August 1985 to Present: Chapman Technical Group
Senior Vice President and Project Manager.

May 1978 to August 1985: Kelley, Gidley, Blair & Wolfe, Inc.
Landscape Architect and Project Manager.

Mr. Bird is a project manager and registered landscape architect. His experience ranges from large site development projects to the management of multi-discipline and architectural projects.

31 years professional experience.

PROJECT EXPERIENCE

Site Development: Site planning and project management for numerous projects throughout West Virginia ranging from small campus sites to large sites for commercial, government, industrial, and institutional development. Projects include military complexes, campuses, public housing developments and other public facilities.

Parks and Recreation: Projects include swimming pools, bathhouses, cabins and support facilities for the West Virginia Division of Natural Resources and similar facilities for county and municipal park systems. Also involved in the design of facilities such as softball fields, fishing access facilities, recreation facilities for prisons, as well as passive recreation areas for public and private clients.

Miscellaneous: Other project experience includes the urban planning and development, streetscape design, roadway and storm drainage projects, as well as the project management of numerous major architectural projects throughout West Virginia.

AFFILIATIONS

West Virginia Chapter of the American Society of Landscape Architects

AWARDS

Honor Award for Shrewsbury St. Redevelopment Plan
West Virginia Chapter of American Society of Landscape Architects

ROBERT G. BELCHER, P.E.
Senior Vice President, Engineering
and Project Officer

EDUCATION

West Virginia Institute of Technology, BSCE, 1983

REGISTRATION

Civil Engineering, West Virginia, 1996
Civil Engineering, Ohio, 2006

PROFESSIONAL HISTORY

January 1987 to Present: Chapman Technical Group
Senior Vice President and Project Officer.

June 1984 to January 1987: Regional Intergovernmental Council
Planning and Development Council for West Virginia Region III - Metropolitan Planning Organization for Charleston, WV, MSA.

26 years professional experience.

PROJECT EXPERIENCE

Water Systems: Design and project management for numerous water systems for both public and private water companies. Projects include new water treatment plants as large as 10 MGD, improvements to existing plants, water mains and distribution systems. Water storage projects include glass-lined steel tanks, welded high-strength steel tanks, and elevated pedestal tanks.

Wastewater Systems: Design and project management for numerous wastewater systems throughout West Virginia. Projects include new, secondary and tertiary wastewater treatment plants as large as 4.5 MGD, improvements to existing plants, small-flow treatment plants, new and rehabilitation of wastewater collection systems, and facility plan updates.

Miscellaneous: Design and project management for large highway and bridge projects, airport improvements projects, large stormwater management projects, as well as potable water and wastewater system design for site development projects throughout West Virginia.

AFFILIATIONS

Water Environment Association - WV Section
Contractor's Association of West Virginia - Associate Member
American Water Works Association - WV Section
WV Society of Professional Engineers
American Council of Engineering Companies - ACEC/WV
WVUIT Civil Engineering Advisory Board
Ohio Rural Water Association

AWARDS

George Warren Fuller Award, 2001

ROBERT D. DINSMORE
Project Designer

EDUCATION

West Virginia University, BSLA, 2010

PROFESSIONAL HISTORY

June 2010 to Present: Chapman Technical Group
Project Designer.

Fall 2008 to Fall 2009: West Virginia University
Teaching Assistant, Intro to Landscape Architecture Graphics

Fall 2009 to Spring 2010: West Virginia University
Teaching Assistant, History of Landscape Architecture

Summer 2008: Austin Outdoor Landscape Professionals
Landscape Architecture Intern,

2006 to 2007: Austin Outdoor Landscape Professionals
Project Manager

Mr. Dinsmore is responsible for the design and development of urban design projects, parks and recreation projects, and landscape design.

PROJECT EXPERIENCE

Urban Design: Designed and developed a master plan as part of his senior thesis for the Boston waterfront development.

Receation Design: Developed master plans and designs for various facilities as part of scholastic studies.

Landscape Design: Designed and installed numerous landscape plans for high end residential and resort projects constructed in Florida.

AFFILIATIONS

Student Society of Landscape Architects (WVU Vice-President)
Sigma Lambda Alpha Landscape Architecture Honorary (WVU President)
G.E.R.M.A.N. Club of Virginia Tech
Sunnyside Up Campus Neighborhoods Revitalization Corporation (Volunteer)

AWARDS

ASLA Student Honor Award Winner 2010
ASLA Student Merit Award Nominee 2010

W. THOMAS CLOER, III, AIA, NCARB
Project Architect

EDUCATION

University of Tennessee, BArch, 2001

REGISTRATION

NCARB registered architect.
ARE exam completed.
Intern Development Program completed.

PROFESSIONAL HISTORY

October 2006 to Present: Chapman Technical Group
Project Architect and Architectural Designer

2001-2006: N Visions Architect
Architect Intern

9 years professional experience.

PROJECT EXPERIENCE

Experience ranges from drafting, detailing and design through project management and construction administration of building projects throughout West Virginia including the following project types:

- Public School Facilities
- Government Facilities
- Office Buildings
- Medical Office Facilities
- Single Family Housing
- Multi-family Housing
- Recreational Facilities
- ADA Assessments
- Site Planning

AFFILIATIONS

American Institute of Architects
City of St. Albans Property and Maintenance Board, Member
City of St. Albans Historic District Committee, Member
Boy Scouts of America Troop 250 Committee Member

STEPHEN M. JOHNSON, PE
Civil Engineer

EDUCATION

West Virginia Institute of Technology, BSCE, 2004

REGISTRATION

Civil Engineering, West Virginia, 2009
Civil Engineering, North Carolina, 2008

EXPERIENCE

January 2009 to Present: Chapman Technical Group
Civil Engineer

October 2006 to January 2009: McKim and Creed
Civil Engineer

May 2004 to October 2006: Chapman Technical Group
Civil Engineer

June 2001 to May 2004: Allegheny Power
Gas Support Technician/Intern

6 years professional experience.

PROJECT EXPERIENCE

Water Systems: Overall experience includes planning, design, bidding, and construction administration/management of various public and private water system projects throughout West Virginia and North Carolina. Specific project experience includes distribution systems, river crossings, horizontal directional drills, booster stations, treatment plants, ground and elevated water storage tanks, SCADA systems computer modeling, treatment process evaluation, and problem troubleshooting in existing systems.

Wastewater Systems: Overall experience includes comprehensive system master plans, design, bidding, construction administration/management of various public and private wastewater system projects throughout West Virginia and North Carolina. Specific project expreiance includes gravity and low-pressure collection systems, pump stations and force main transmission systems, treatment process evaluation and design, trenchless pipeline rehabilitation, bypass pump system design, odor and corrosion control, effluent infiltration ponds, SCADA systems.

DAVID L. SKEEN, P.E.
Consultant to Chapman Technical Group

EDUCATION

Virginia Polytechnic Institute, Chemical Engineering
West Virginia State College, BS, Mathematics

REGISTRATION

Mechanical Engineering, Kentucky 1978
Mechanical Engineering, Ohio 1980
Mechanical Engineering, West Virginia 1982

PROFESSIONAL HISTORY

August 1985 to Present: David L. Skeen, P.E., Consulting Engineer
Sole Proprietor.

Mr. Skeen is sole proprietor of his firm. He provides mechanical and electrical systems design services to architects and building owners in West Virginia, Ohio and Kentucky.

25 years professional experience.

PROJECT EXPERIENCE

Consultant to the following:

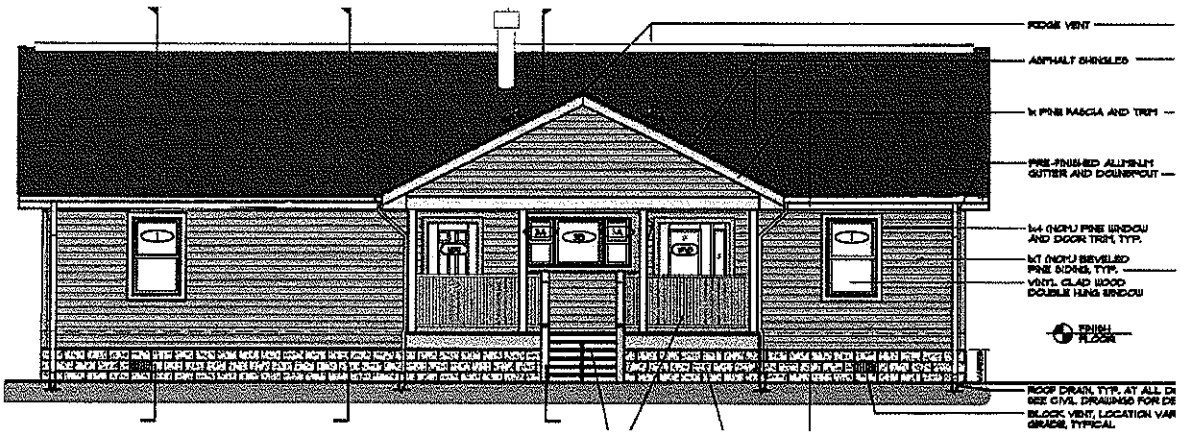
Architectural Planning and Design, Inc.
Cabell County Board of Education
Dean and Dean, Architects
Robert L. Dalton, Architect
Larry E. Ellis, Architect
MSES Consultants, Inc.
Edward Tucker, Architect

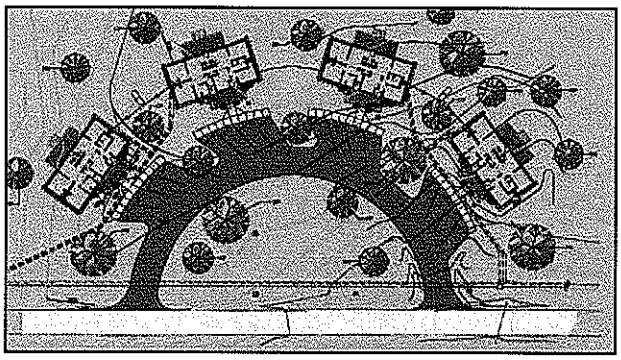
AFFILIATIONS

National Society of Professional Engineers
Associate Member, American Institute of Architects (WV Chapter)

Landscape Architecture

Blackwater Falls Cabins 07069





Blackwater Falls Cabins
WV DNR Parks and Recreation
Davis, West Virginia

Chapman Technical Group was selected to provide the architectural, civil engineering, and landscape architectural design to construct 13 new cabins in the environmentally-sensitive Blackwater Falls State Park, including site development and utility system upgrades.

Originally the Owner wanted to expand the existing cabin area in the park, but utility issues proved too costly at that location, so alternative sites were evaluated and a seldom used picnic area was determined to be the optimum site.

One of the goals in developing the project was to have as little environmental site impact as possible. The selection of the picnic area site meant that a new access road would not be required. A plan to cluster the cabins was developed that would further minimize the footprint of the cabin development. As much as possible, the existing grade remained unchanged to preserve the natural vegetation. A natural planting plan was developed using indigenous or naturalized plant species, with a special effort made to provide habitat vegetation for endangered animal species in the area. Ground water recharge was investigated but was deemed unfeasible due to clay soils and shallow bedrock.

As part of the project, a low-impact wastewater treatment plant was designed and will result in water clean enough to discharge into the natural waterways of the park. More than a mile of potable water line was also upgraded, which will benefit other areas of the park as well.

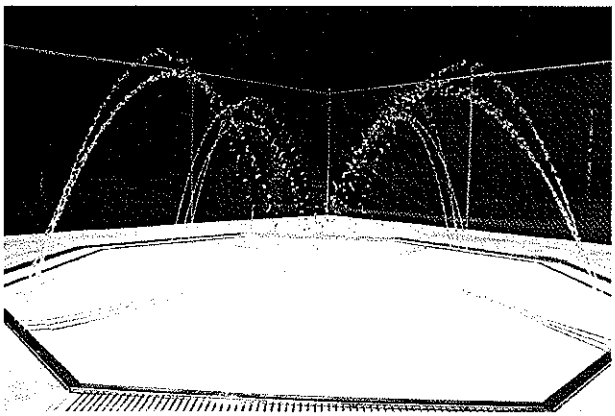
Construction should be complete in 2010.

Landscape Architecture

Laurel Lake WMA Swimming Pool 08080

Laurel Lake WMA Swimming Pool
Mingo County, West Virginia

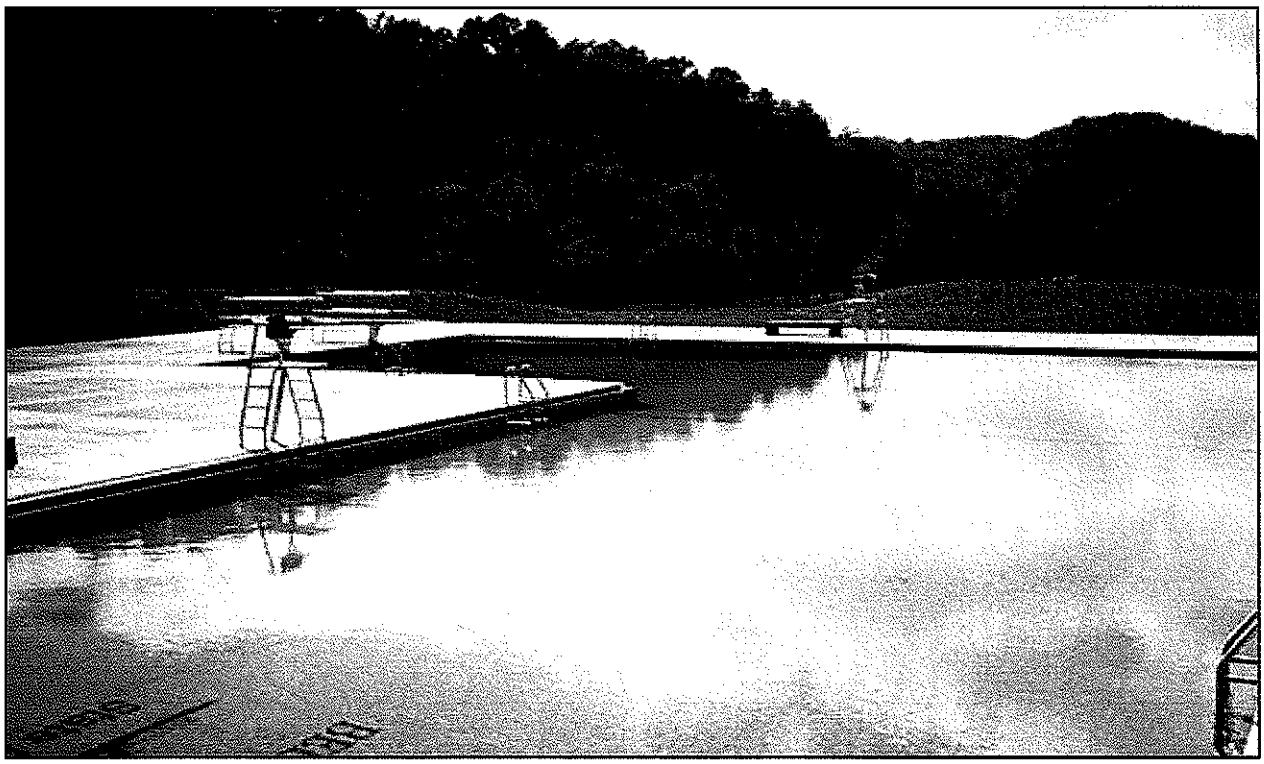
The West Virginia Division of Natural Resources swimming pool at the Laurel Lake Wildlife Management Area near Lenore, West Virginia had fallen into serious disrepair and had actually closed down. Chapman Technical Group designed a rehabilitation of the pool that included a new stainless steel gutter recirculation system, a membrane liner, a new interactive wading pool, and new concrete decks. After the demolition of the old bathhouse, a new bathhouse was built which also houses the filtration equipment for the wading pool. The project was completed in 2010 at a cost of $714,000.



The swimming pool renovations included a new interactive wading pool.

Landscape Architecture

Beech Fork State Park 97049

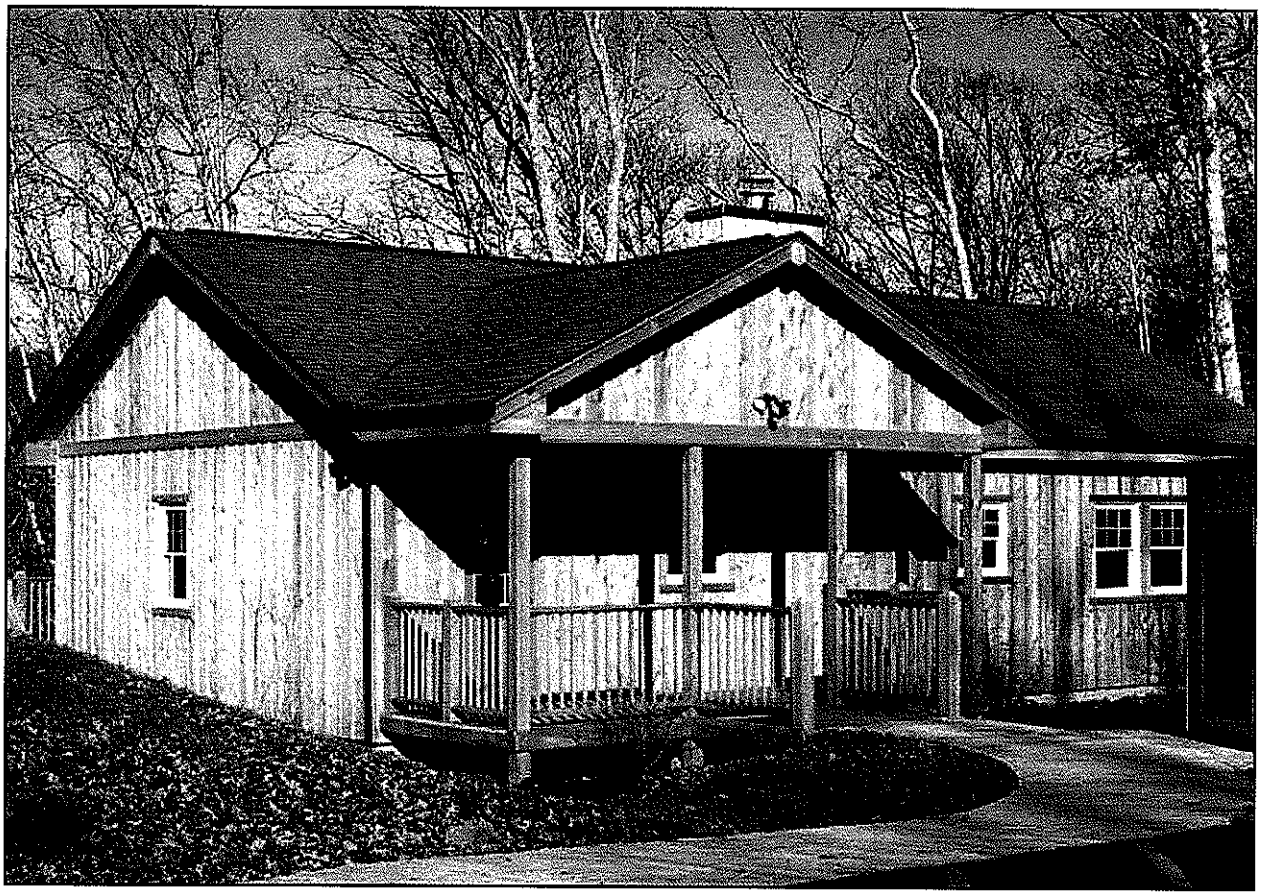


West Virginia Division of Natural Resources
State Capitol, Building 3, Room 669
1900 Kanawha Boulevard,
Charleston, West Virginia 25305

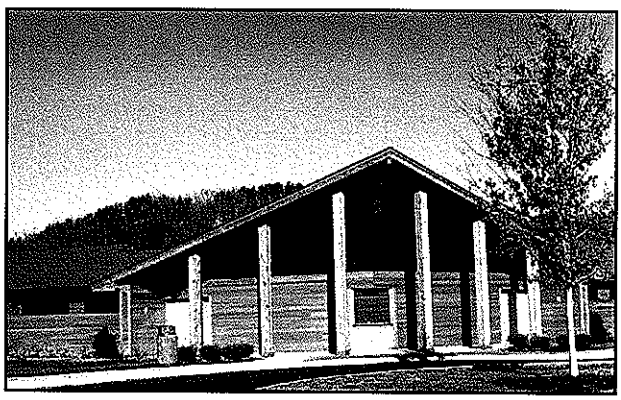
Chapman Technical Group designed $4.5 million worth of improvements at the state park near Barboursville including a 50-meter swimming pool, bathhouse, six modern cabins, and campground upgrades. The pool and bathhouse were constructed on 12 feet of fill, artfully designed by our landscape architects to blend naturally with the surrounding terrain. A one-half mile access road to the cabins was also designed by our landscape architects. They also provided the storm water management of the project, as well as all of the landscaping.

Landscape Architecture

Beech Fork State Park 97049



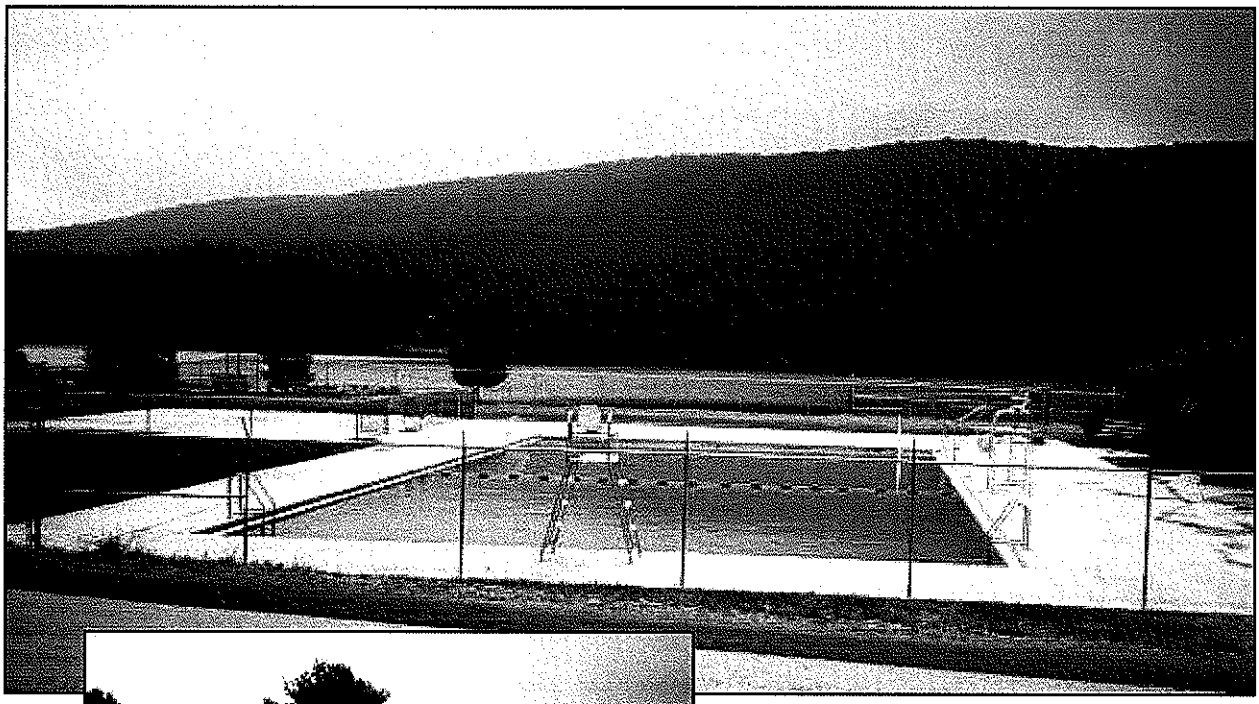
West Virginia Division of Natural Resources
State Capitol , Building 3, Room 669
1900 Kanawha Boulevard, East
Charleston, West Virginia 25305

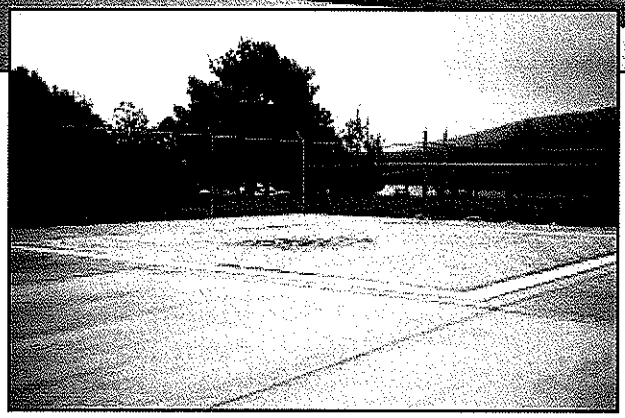


Chapman Technical Group designed $4.5 million worth of improvements at the state park near Barboursville including a 50-meter swimming pool, bathhouse, six modern cabins, and campground upgrades. With its distinctive high sloped roof, the bathhouse was designed as the architectural centerpiece of the Bowan Day Use area while complementing the architecture of the existing park structures. The cabins provide the warmth of natural materials such as wood and stone, yet are fully equipped with modern conveniences such as air conditioning and microwaves.

Landscape Architecture

Moncove Lake State Park Swimming Pool 97051





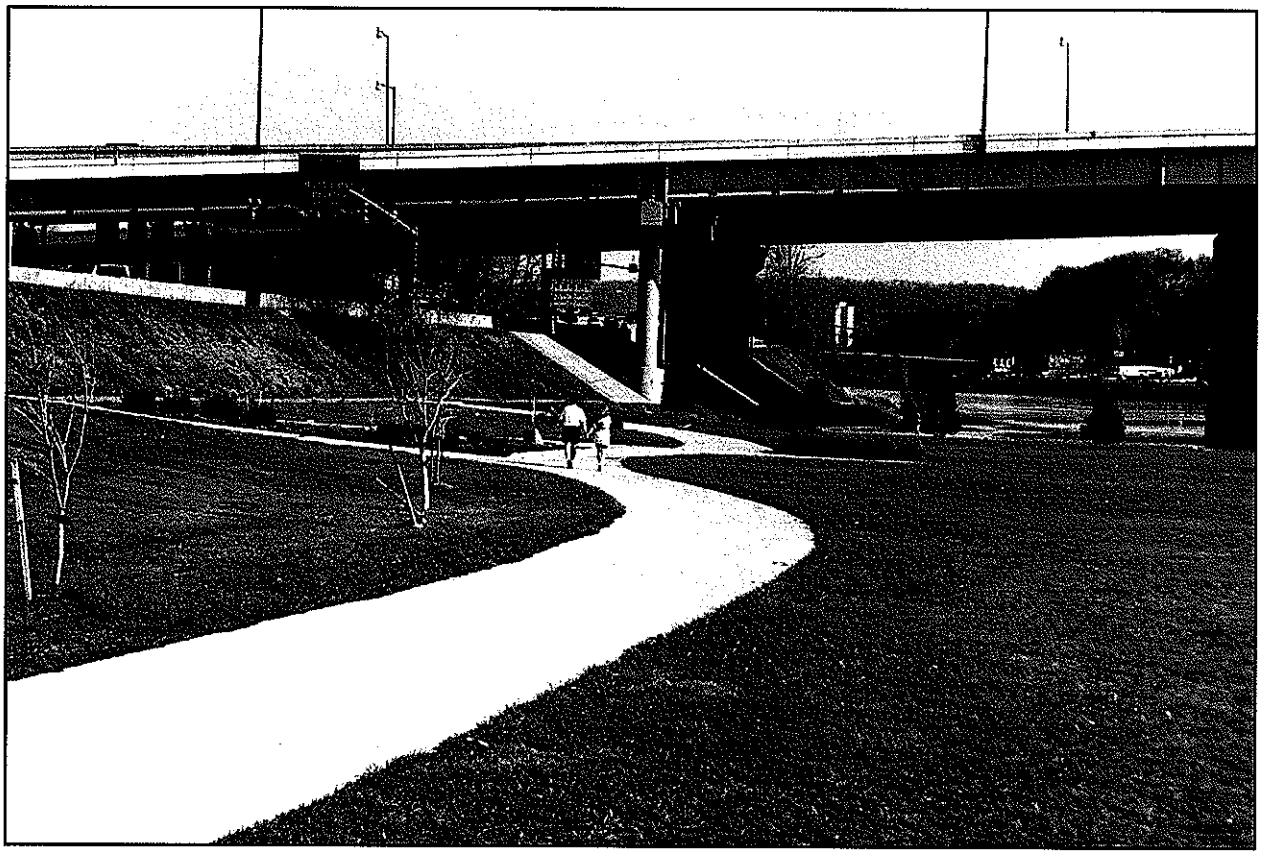
West Virginia Division of Natural Resources
State Capitol, Building 3, Room 669
1900 Kanawha Boulevard,
Charleston, West Virginia 25305

The new Moncove Lake State Park swimming pool opened for business on the Fourth of July weekend of 1999, one month ahead of schedule. Designed by Chapman Technical Group for the West Virginia Division of Natural Resources, the pool features a stainless steel gutter recirculation system and a wading pool surrounded by spraying jets of water. The 25 meter pool is a long-needed addition to the state park located south of Lewisburg.

In order to provide adequate water for the pool, not only was the construction of a pool filter room required, but the entire water system for the park had to be renovated. The water system design included a larger well pump, a larger green sand filter to remove iron, and upgraded water storage and filter backwash capabilities.

Landscape Architecture

Magic Island Park 90015

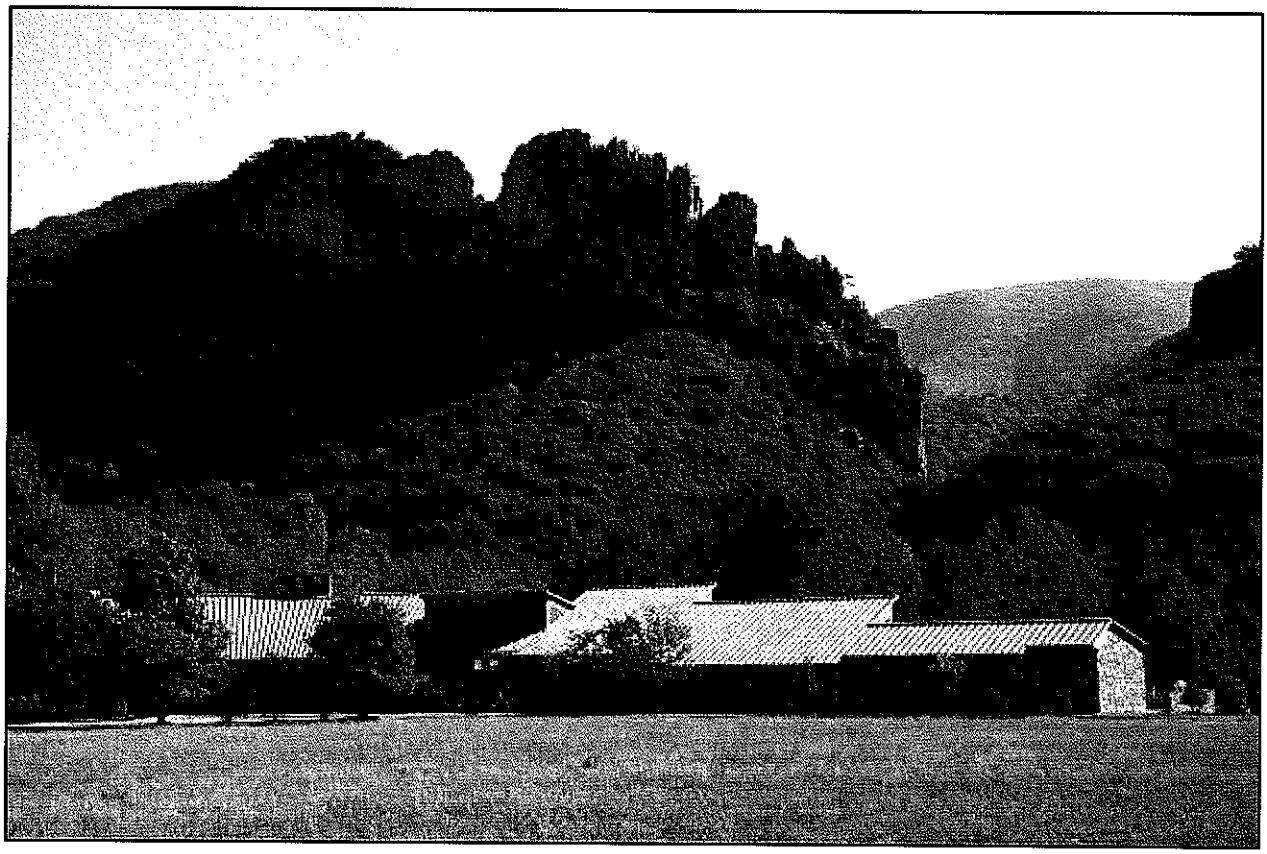


City of Charleston
501 Virginia Street, East
Charleston, West Virginia 25301

Magic Island was formerly an overgrown island along the banks of the Kanawha River in Charleston which was built up by the U.S. Army Corps of Engineers with dredged material from the Elk River. Chapman Technical Group developed a design to transform Magic Island into a public park featuring a boat dock, sand volleyball courts, concrete walkways, a restroom facility, an irrigation system and extensive landscaping.

Landscape Architecture

Seneca Rocks Visitor Center Site Development 93057

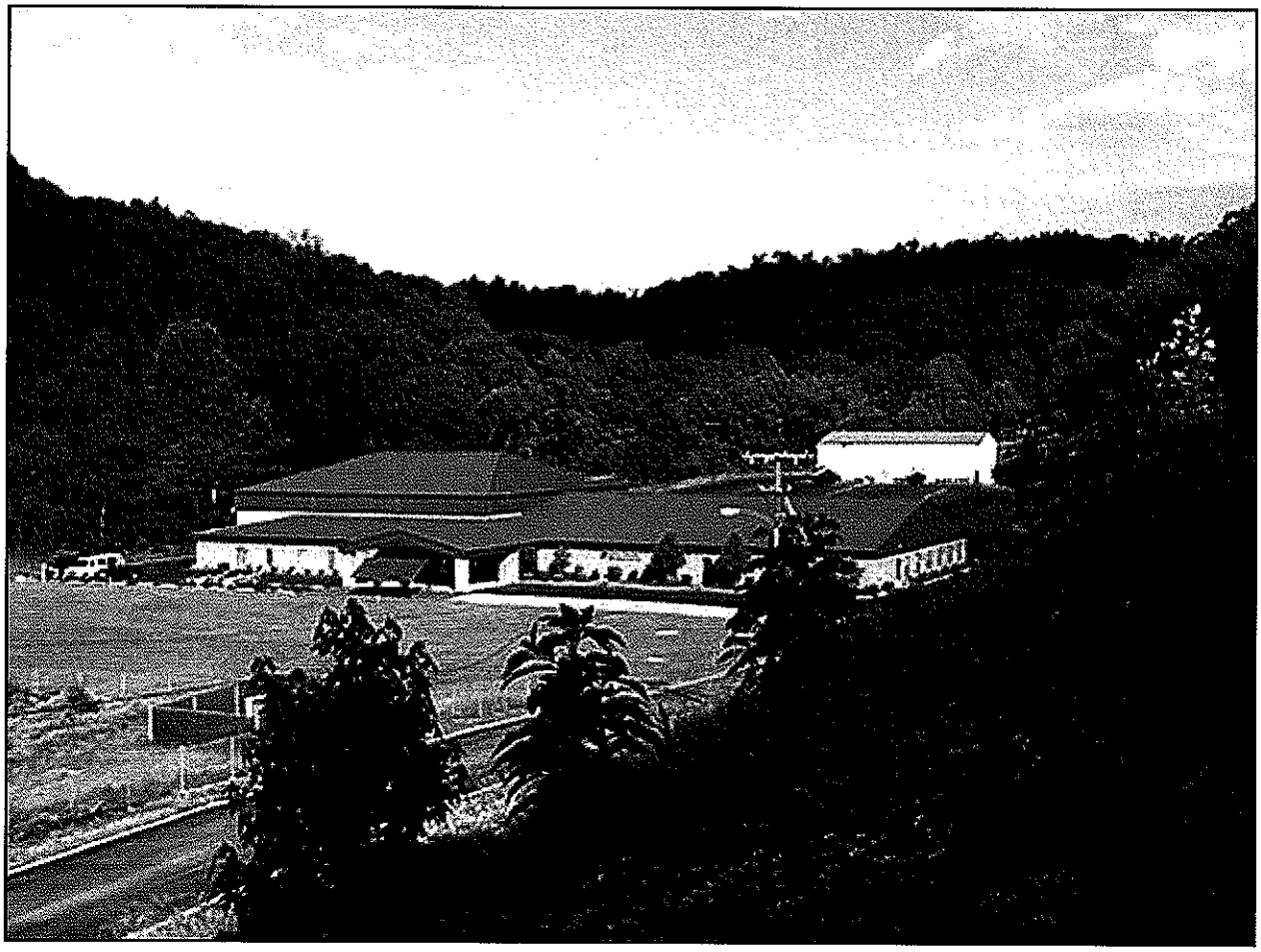


Seneca Rocks Visitors Center
Seneca Rocks, West Virginia
Construction Cost: $600,000 (sitework only)
Completion Date: 1997
Contact: Missy Maxwell (215) 985-4410

Working with architectural firm Susan Maxman Associates, Chapman Technical Group provided site development services for a new visitor's center that would provide visitors a unique experience of Seneca Rocks, a popular tourist attraction for the state. Pedestrian walkways and vehicular circulation were emphasized in the project as well as integration into the existing site. Susan Maxman Architects relied on Chapman Technical Group for site grading, drainage, utilities, and material selection. Visitors can walk existing trails and enter the new facility through a series of raised walkways, pedestrian bridges, and overlooks.

Landscape Architecture

King's River Worship Center Site Development 97001



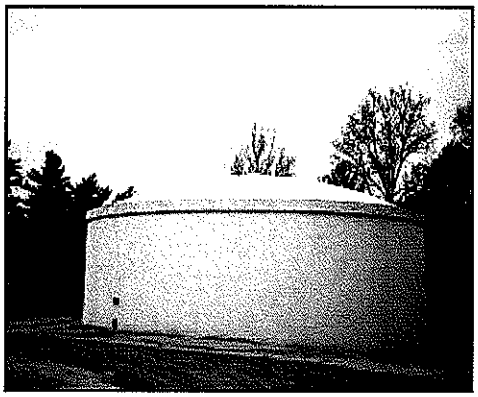
King's River Church
777 Mallory Lane
St. Albans, West Virginia 25177

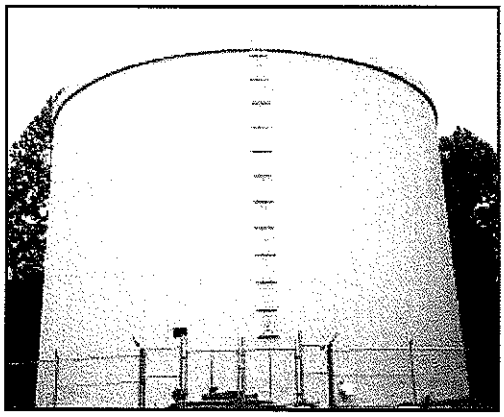
Chapman Technical Group provided site design services for a new church for the King's River Worship Center (formerly the First Assembly of God). The project included building siting, parking layout, grading and drainage design, utility design, and design of erosion and sediment control. The project also included the analysis, relocation design and permit application for a stream tributary within the Kanawha River Basin.

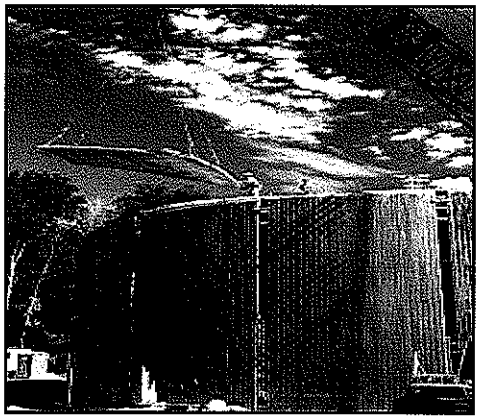
Water Storage and Distribution

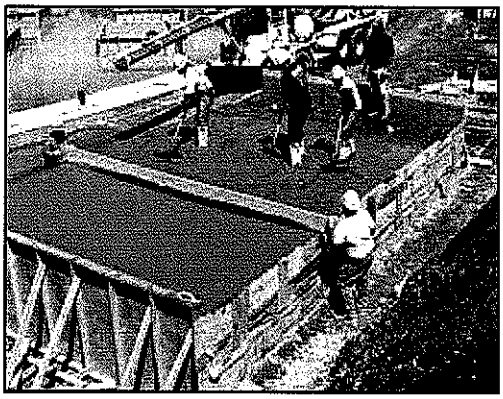
Fairmont Water System Improvements

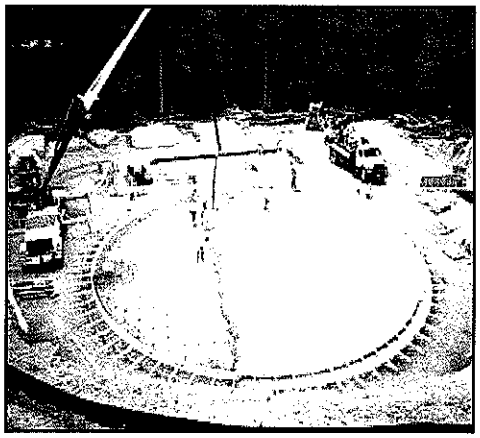
97024

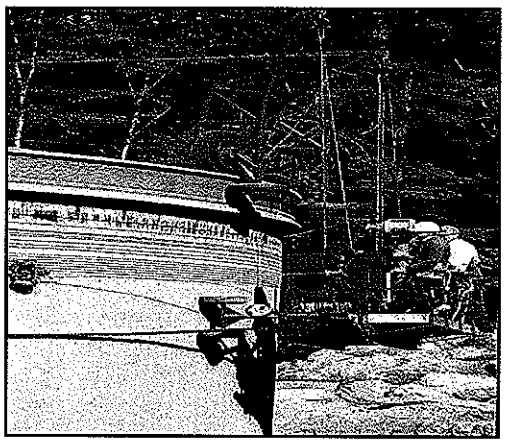












City of Fairmont
Post Office Box 1428
Fairmont, West Virginia 26555

Water Engineering Storage

Thomas Water System Improvements 95087

City of Thomas
Post Office Box 248
Thomas, West Virginia 26292

Design and construction observation services for the replacement of a 150,000 gallon aged and deteriorated water storage tank with a new 157,000 gallon factory-coated bolted steel potable water storage tank and tank level/high service pump telemetry control system. The storage tank is 33'-0" diameter x 24'-0" high and the tank overflow matches an existing tank that remained in service adjacent to the new tank.

Water Engineering Treatment

North Fork Hughes River Water System Improvements 94030

United States Department of Agriculture
Soil Conservation Service
75 High Street, Room 301
Morgantown, West Virginia 26505

Project included complete design services for a new 1,750 GPM (2.5 MGD) water treatment plant to serve the Towns of Harrisville, Pennsboro, Cairo, and North Bend State Park. The project also includes a 1.0 MG water storage tank, a 215,000 gallon water storage tank, one 500 gpm booster station, pressure reducing stations, and over 51,750 LF of 8" water distribution mains. The new plant utilizes a new flood control/recreational impoundment on the North Fork of Hughes River as the source of supply. An in-depth comprehensive hydraulic analysis of each of the three existing major systems was performed in order to integrate and combine all three municipal systems into a regional water supply system.

STEVENS ENGINEERING

Stevens Engineering is recognized throughout North America for responsive planning and engineering design. With nearly 30 years of service to its clients, Stevens Engineering is an accomplished source for passenger ropeway engineering, planning and design of lift and trail systems, snow tubing park design and mountain surveying.

Lift relocation engineering and the design of upgrades and modifications to existing lift installations are technical specialties at the core of the firms' capabilities. Stevens Engineering frequently assists lift manufacturers with the design of new installations, major lift upgrades and lift profile surveying. Ski area clients often seek out the technical expertise and the knowledge of governing standards and regulations Stevens Engineering has to offer for assistance in preparing comprehensive and result-oriented bid specifications for future lift purchases and for expert witness representation.

Contact: Ross Stevens, P.E. 215 Sargent Road New London, New Hampshire 03257
Ph: 603-526-2493 Fax: 603-526-2003 email: steveng@tds.net
www.stevens-engineering.com

STEVENS ENGINEERING

P.O. Box 1945 New London, NH 03257
Tele: (603) 526-2493 Fax: (603) 526-2003

PROFESSIONAL PROFILE

Ross A. Stevens, P.E., President, STEVENS ENGINEERING
215 Sargent Road
P.O. Box 1945
New London, NH 03257

SPECIALIZED PROFESSIONAL COMPETENCE

Passenger Ropeways:	Planning, Engineering Design, Analysis, Inspection,
Aerial Ropeways	Relocation Engineering, Upgrades, Modifications,
Surface Lifts	Due Diligence Surveys, Dynamic Testing,
Conveyors	Maintenance Consulting, Accident Investigation,
	Profile Surveying, Construction Engineering
Snow Tubing Parks:	Planning & Engineering Design, Terrain Dynamics Evaluation
Civil Engineering:	Site Planning, Engineering Design, Surveying, Permitting
Structural Engineering:	Engineering Design, Analysis, Inspection

PROFESSIONAL BACKGROUND

Registered Professional Engineer and Qualified Tramway Engineer in: Maine, Maryland New Hampshire, Vermont, Connecticut, Massachusetts, New York, Pennsylvania, Michigan, Utah, Wisconsin, New Jersey, Colorado, Idaho, Iowa, Tennessee, West Virginia, Wisconsin, Ontario, New Brunswick

Bachelor of Science Degree in Civil Engineering University of Massachusetts, Amherst - 1974

Entered Profession in 1974

AFFILIATIONS

NATIONAL TRAMWAY STANDARDS BOARD – Member from 2000 - 2006

AMERICAN NATIONAL STANDARDS INSTITUTE - ASC B77 Accredited Standards Committee - American National Standard for Passenger Tramways, Committee Member

OITAF-NACS - International Organization for Transportation by Rope, North American Continental Section, Member

NSAA - National Ski Areas Association, Member

OSRA - Ontario Ski Resorts Association, TSSA/OSRA Technical Advisory Committee

SENH - Structural Engineers of New Hampshire, Member

State of New Hampshire, Governor's Office of Emergency Management - ACT-20 Post-Earthquake Building Safety Evaluation Engineer

steveng@tds.net
www.stevens-engineering.com

STEVENS ENGINEERING

SELECTED CLIENTS FOR THE MOUNTAIN RESORT INDUSTRY

Squaw Valley – CA
CNL Lifestyles, LLC – FLA
Arrowhead Ski Area – NH
Mount Isenglass Snow Park - NH
Attitash - NH
Cannon Mtn. - NH
Crotched Mountain, Francistown, NH
Dartmouth Skiway, NH
Gunstock, NH
Willis of New Hampshire
Kaser North America – Grantham, NH
Mount Cranmore - North Conway, NH
Mount Sunapee State Park, NH
Star Lifts, Sunapee, NH
State of NH - Dept. of Parks and Recreation
Proctor Academy, NH
Rowell Hill - NH
Moose Mountain - NH
Ragged Mountain - NH
Whaleback - Lebanon, NH
Bretton Woods - NH
Waterville Valley - Waterville Valley, NH
King Ridge - New London, NH
Snow Hill at Eastman - NH
Sno-engineering, Inc. - Littleton, NH
Poma of America - West Lebanon, NH
Ragged Mountain, NH
Tenney Mountain - New Hampshire
Mountain Creek – NJ
Hidden Valley - NJ
Ober Gatlinberg, TN
Burke Mtn. - VT
Round Top, VT
Bolton Valley, VT
Stratton Mountain - VT
Mount Snow – VT
Smugglers Resort - VT
Haystack, VT
Mount Mansfield Resort - Stowe, VT
Round Top, VT
Sugarbush Resort - Warren, VT
Mad River Glen - Fayston, VT
Magic Mountain, VT
Jay Peak Resort - Jay, VT
Middlebury Snow Bowl - Middlebury, VT
Bear Creek - VT
Wachusett Mountain - Princeton, MA
Otis Ridge - MA
Ski Bradford - MA
Nashoba Valley - MA
Amesbury Sports Park - Amesbury, MA
Blue Hills Ski Area - Canton, MA
Conservation Tourism, LTD - MA
Aon-Reed Stenhouse – ON
Searchmont – ON
Horseshoe Valley - ON
Craigleith Ski Club - ON
Cassels Brock & Blackwell - ON
Dale Intermediaries Ltd. - Toronto, ON
Hidden Valley Highlands Ski Club - ON
Hughes, Amys - Toronto, ON
Zurich Canada - Toronto, ON
Snow Valley - Barrie, ON
Berthoud Pass, CO
Breckenridge, CO
Howelson Hill, CO
Jenlynn International, Inc. - Boulder, CO
Stadeli USA - Boulder, CO
Doppelmayr USA - Golden, CO
Poma of America - CO
Ski Snowstar - Ill
Sun Valley Company - Idaho
Mt. Crescent – Iowa
Sleepy Hollow Sports Park – Iowa
Norway Mountain – MI
Ski Brule - MI
Mt. Bohemia, MI
Porcupine Mountain - MI
U.S. Gypsum, MI
Whiteface - Olympic Regional Development Authority - Wilmington, NY
Catamount - NY
Mount Peter, NY
Gore Mountain - NY
Partek Enterprises, Inc. - Pine Island, NY
USMA, West Point - NY
Big Tupper – NY
Snow Park Niagara – NY
Scotch Valley, NY
Hunt Hollow, NY
Ski Windham – NY
Royal Mtn. - NY
Belleayre Ski Center - NY
Whitetail Ski Company - Mercersberg, PA
Laurel Mountain State Park - PA
Boyce Park Ski Area - Pittsburg, PA
Willowbrook - PA
Ski Big Bear - PA

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STEVENS ENGINEERING

SELECTED CLIENTS FOR THE MOUNTAIN RESORT INDUSTRY

Framar, Inc., PA
Montage Ski Area - PA
Pinecrest Resorts – PA
Framar, Inc – PA
Ski Roundtop – PA
Rustler Lodge - Alta, Utah

Bruckschlogl GES.M.B.H - Austria
Winter Park - Wisconsin
Ri b Mountain – Wisconsin
Hermon Mountain – Maine
Oxford Plains Snowtubing, Maine
Sugarloaf USA – Maine
Camden Snow Bowl - Maine
Mars Hill – Maine
Shawnee Peak - Maine
Saddleback – Maine
Sports Parks of Maine
Shawnee Peak - Maine
Sunday River - Maine
Eaton Mountain – Maine
Stone Mountain Park - GA
Ober Gatlinburg - TN
Garaventa, CTEC – Utah
Division of Parks and Recreation - Commonwealth of WV
Canaan Valley – WV
Oglebay Family Resort - WV
Snowshoe Mountain Resort - WV
Mount Ashwabay - WI
Dosel, S.A. – Costa Rica
Rain Forest Trams – Costa Rica
Rain Forest Trams, LTD – Dominica
Poley Mountain – New Brunswick
Mount Southington – CT
Yawgoo Valley - CT
Brandywine - Ohio

steveng@tds.net
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Statement of Qualifications with Example Projects and Service Information

June 2010

Smith-Comeskey Ground Water Science LLC

295 S. Lawn Ave.
Bluffton, OH 45817
Tel: 419/358-0528 • e-mail:
info@groundwaterscience.com

www.groundwaterscience.com

Ground Water Science

Science and Planning for Earth's Most Critical Resource

Ground Water Science Capability Statement

Company Summary

Smith-Comeskey Ground Water Science has been providing a broad range of scientific and training services in hydrogeology and well and drain maintenance and rehabilitation since 1986.

Unique among comparable hydrogeologic consulting firms, we take a "total systems" approach to designing ground water source systems, and solving and preventing the problems that impair their performance. We link hydrogeologic analysis to a wide range of information needed for a complete ground water information package.

Unique among consultants on well and pressure relief system performance problems and maintenance and improvement, we are not commercially tied to specific chemical or technical solutions and can serve our clients without bias.

Professional Services

- Hydrogeologic field testing
- Hydrogeologic modeling with experience in complex fracture-flow, quasi-porous media fracture flow, layered unconsolidated, and glacial-alluvial in bedrock settings
- Environmental microbiology (including biofouling and biocorrosion-related) and geochemical field sampling and analysis for both water and solid matrices.
- Providing specifications, site supervision, and verification testing and documentation for well construction and well rehabilitation projects – also the capability to provide these as turn-key services
- Forensic analysis and troubleshooting for biofouling and biocorrosion of ground water and pressure relief system problems and microbiological well contamination
- Ground water system and pressure relief system maintenance planning and implementation
- Training in problem prevention and performance maintenance.

Experienced Staff

The Ground Water Science partners, Stuart Smith and Allen Comeskey, are certified and licensed geologists and ground water professionals with advanced degrees. Each contributes over 30 years of varied, quality, hands-on professional experience to the firm. The partners are both published and Smith has contributed to several landmark drilling, well construction, biofouling analysis and well rehabilitation publications. The integrated understanding of hydrogeologic, biogeochemical, and well performance problems that this experience brings is available on each project, large or small.

With us, it's personal. **One or both partners are always actively engaged in your project.**

- **We don't just show up at sales meetings and "sign off" at the end.**
- **We stay active in and volunteer with industry and professional organizations and learning.**

Facilities and Equipment

- All equipment to perform well and pump performance testing (1 to 2000 gpm). Borehole and surface geophysics and video available.
- All equipment to perform on-site sampling and analysis of basic chemical-physical and biofouling and biocorrosion parameters. Packaged to be easily transportable.
- Hydrologic modeling (both semi-analytical and numerical) and graphical software on high-capacity workstations and laptops for flexible use.
- GIS, contouring, LIDAR/fracture trace mapping, and three-dimensional log and profile capacity to import, manipulate, manage, and display a wide range of information in a spatial context.
- Biofouling, biocorrosion, and other microbiological analysis by microscopy, cultural and biochemical methods. We supply these services to major full-service laboratories.
- Training packages and presentation technology for improving the capabilities of others.

Primary Clients

Ground Water Science command of rock hydrogeology is second to none regionally, and our expertise in ground water system biofouling, maintenance, and rehabilitation is recognized and sought out across North America and beyond. We have solved problems for everything from small private systems to some of the nation's biggest ground water projects.

- **National Ground Water Association:** Training, research on well problems and solutions, and manual production.
- **Quality firms e.g., Hull & Associates, Greeley & Hansen; Earth Tech; CH2M Hill; Fanning/Howey; DLZ Indiana; GEO Consultants.** Testing and plans for ground water system maintenance and rehabilitation, hydrogeology, WHPP.
- **AWWA Research (Water Research) Foundation:** Landmark biofouling and well maintenance and rehabilitation research.
- **U.S. Army Corps of Engineers Omaha District (via contractor ARCC Inc.):** Wellfield maintenance guidance manual.
- **Federal Highway Administration**, Borehole Sealing Research Project contractor.
- **Bureau of Reclamation Technical Services Center.** Biofouling analysis, research, and comprehensive maintenance planning for large wellfields and dam pressure relief systems.
- **Municipal clients including Hamilton, Ohio, Tate-Monroe Water Association (Ohio), Elkhart, Indiana, Muscatine, Iowa, and Metropolitan Water, Tucson, Arizona.** Well construction and well maintenance and rehabilitation analysis and planning.
- **Angus (Kidde), Cablerie d'Eupen, (Belgium) and Boreline (South Africa):** Consultant, well maintenance related products.

- **Our informative and widely linked web site www.groundwaterscience.com has more information on our experience and qualifications, plus a newsletter and informative pages oriented toward ground water topics.**
- **We urge you to stay active in associations, volunteer, and contribute to safe drinking water worldwide.**

Company Designations

Dun & Bradstreet no. 794593327

Cage code: 1WRP2

Corporate status: Small business, no additional designations

Limited liability company

NAICS Codes

Ground Water Science offers services under the following listed NAICS codes:

Primary:
541690 – Other scientific and technical consulting services
541712 – R&D physical, engineering, life sciences
541990 – All other professional, technical, and scientific services
611430 – Professional and management development training

Secondary (subcontracted):
541330 – Engineering services
541360 – Geophysical surveying and mapping

PSC Codes

Primary:
AJ32 – R&D Environmental Science
AJ34 – Environmental Science Engr. Development
AJ52 – Life Sciences, Applied & Exploratory
AJ54 – Life Sciences Engr. Development
B504 – Chemical/Biological Studies
B517 – Geological Studies
B525 – Natural Resources Studies
B533 – Water Quality Studies
F103 – Water Quality Support Services
H332 – Inspection Services, Water Pur. Equipment
H999 – Misc. Inspection and Testing Services

Secondary:
AJ42 – Engineering, Applied & Exploratory
B518 – Geophysical Studies
F015 – Well Drilling/Exploratory Services

Contact Information

Stuart Smith, CGWP, partner, e-mail stuart@groundwaterscience.com, tel: 419.235.4955
Allen Comeskey, CPG, partner, e-mail allen@groundwaterscience.com, tel: 419.358.0528.

Some Representative Wellfield Planning and Wellhead Protection Projects (1997-present):

The following are some of our projects (of the ones we can discuss) to provide an idea of the type and scope of projects we have conducted. One feature is the long-term and repeat nature of our work with our clients.

Village of Ada -- First fully endorsed wellhead protection plan in northwest Ohio and further implementation of the plan. Jim Meyer, Village Administrator, 419/634-4045.

Back before source water protection planning became a paper exercise in Ohio, there was real hydrogeology done. The Village of Ada began its wellhead protection planning in 1990, before final Ohio Wellhead Protection Program requirements were in place due to concern about the vulnerability of its high-capacity carbonate-aquifer wells. Ground Water Science predecessor S.A.Smith Consulting Services worked with the village in adapting to changing requirements, developing a wellhead protection team, and gathering crucial hydrogeologic information (including detailed geophysical data provided by the University of Toledo), with the assistance of faculty and students at Ohio Northern University. The delineation submitted was one of the first in northwestern Ohio and was a test-bed for acceptance of MODFLOW-MODPATH delineation in the carbonate aquifer (building on existing Ohio State University experience). The PPSI was relatively detailed due to the long industrial history and numerous glacial layer perforations in the vicinity of the wellfield. The MEP was the first endorsed in northwest Ohio, and was endorsed with little request for modification by the Ohio EPA. Copies of it have been frequently requested as a model. Work was conducted within budget.

Dunkirk, Ohio -- To date: Well upgrades, fully endorsed wellhead protection plan, quarry impact assessment. Paul Cramer, W/WW Superintendent, 419/759-2102.

(1) WHPP: Dunkirk is the smallest northwest Ohio community committed to full-scale WHPP. Also with a vulnerable (shallow-bedrock) wellfield near rail lines, Dunkirk began the process when S.A.Smith supervised well upgrades to be designated "ground water" under the Surface Water Treatment Rule. The PPSI relied heavily on recruiting local knowledge of past land-use activities. The delineation was completed in 1996, PPSI in 1997, and management plan in 1999. All quickly endorsed by Ohio EPA. The entire project was completed under budget. (2) Advising the village on potential impacts from a quarry property being developed and expected to pump 1 MGD, including data collection, MODFLOW modeling, and interacting with other parties (Fall 2000-2003). 3) Revise source water protection plan (2007-present). 4) Corrosion consultation, distribution system valves (2009) 5) Planning new replacement well.

Forest, Ohio -- To date: Delineation endorsed, FPS Inc. (now ARCADIS), engineering. Charles Brunkhart, Village Administrator, 419/273-2505.

Forest has wells that are less vulnerable to surface influences, but the area is gaining several large industrial agriculture operations, which could affect both ground water use and quality. The delineation was completed in early 1997 with modifications requested by Ohio EPA. Smith-Comeskey successfully defended a technically accurate and rigorous approach to modeling this aquifer setting (heavily vertical fracturing in the carbonate matrix) using MODFLOW and further demonstrated its statistical validity. Work completed under budget.

City of Oxford: detailed alluvial valley WHPA delineation and management planning. WHPA endorsed. 1997. Hueston Woods project hydrogeologic support (completed). New well planning (in progress). Dave Weihrauch, Chief Water Plant Operator, 513/523-1753.

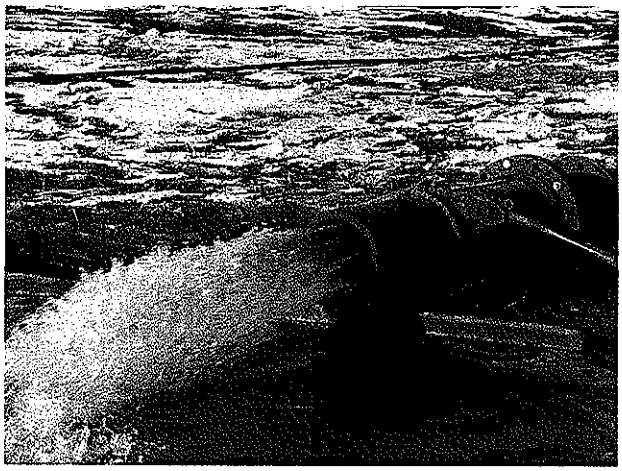
Oxford, Ohio manages a 2-MGD water supply developed in two glacial-fluvial valleys in Butler County. Ground Water Science performed the WHPA delineation for the eastern Seven-Mile wellfield, which is also a politically sensitive resource. This aquifer is a complex two-layer confined unit with multiple clay lens units. Background information was both extensive and in some ways misinterpreted in past work. We gathered detailed and useful data on the confining unit and potentiometric surface. Testing work included confirmation of aquifer-stream interactions and analysis included reinterpretation of past test results. Modeling involved accounting for both aquifer units, the virtually continuous aquitard between, the aquiclude valley geometry, and stream interactions. We were able to show that flow is vertical down into the lower unit pumped by the production wells and downgradient along the valley. Work on this complex project was completed under budget. Notification of endorsement by the Southwest District Office occurred within two weeks of submittal. Oxford also intends to use the model for future planning and community interaction. Hueston Woods proved to be an economically nonviable development. Adding additional well capacity is taking the form of enlarging existing well capacity.

Village of Ottoville: New well siting, old well plugging and wellhead protection. 1997-2002. Steve Wittler, W/WW Supt., 419/453-3147.

Ottoville maintains a ground-water supply system in southern Putnam County in a tight, high-sulfide portion of the carbonate aquifer. Existing wells had corroded and become unusable. Smith-Comeskey conducted site planning for a new well, wrote specifications for a deep well to avoid the highest sulfide ground water, and successfully brought the well to production, meeting project objectives. Existing corroded wells were securely sealed. WHPA delineation completed and submitted to Ohio EPA for endorsement. New well siting and testing in 2002 included interacting with new high school site architects over 180 geothermal bores being installed within the wellfield capture zone. New well in the planning phases.

Village of Willshire: New well siting replacing quarry water source, and wellhead protection. 1997-99. WHPA endorsed. Jim Myers, P.E., Kohli & Kaliher Associates, Lima, Ohio, 419/227-1135.

Willshire has established a new ground-water supply system in western Van Wert County to replace an existing degraded and antiquated quarry supply and water plant. The new plant includes two wells feeding the first PWS iron filtration-nanofiltration treatment system in Ohio, just brought online in November 1998. Wells were completed and tested by S.A.Smith in 1995, with the remainder of the project awaiting Ohio EPA approval of the nanofiltration concept. S.A. Smith conducted site planning for a new well, wrote specifications for wells, and successfully brought the wells to production, meeting project objectives. . The WHPA delineation was completed on a fast track and endorsed, along with a potential pollution source inventory, in 1999. A draft management plan is being reviewed by the village and state SWAP personnel.



City of Hamilton, Ohio -- Well and wellfield capacity testing and modeling support of an application for increased withdrawal. Darla Crum, tel: 513/785-7211.

(1) The city had an interest in testing its wells to determine their pumping and production capabilities. Testing being conducted under contract by Jackson & Sons was analyzed by Ground Water Science (2000). (2) Conducting information review, analysis and modeling of the impacts of current and projected multi-MGD impacts from ground water pumping on the Miami River Valley aquifer. Project includes acquiring well information and withdrawal rates, using these to update and correct the existing regionally constructed MODFLOW model of the aquifer, and projecting output in

service. A maintenance plan to prevent loss of production due to iron biofouling was drafted for facility implementation. A changing well environment (going to an iron sulfide condition) tested the plan and resulted in the need for recommending changes in the cleaning program and equipment to meet the new conditions in cooperation with the well contractor. 2000-2003. A revised well maintenance system is being planned and evaluated. 2003-ongoing.

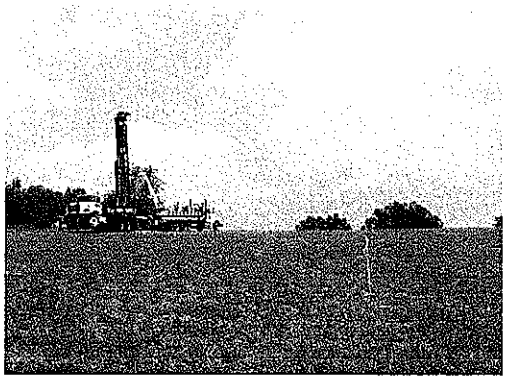
Muscatine, Iowa – Conducting test drilling to confirm and characterize the nature of contamination from ethanol spills, the effect on aquifer water quality, and plans for management of the problem.

Ground Water Science teamed with environmental remediation service provider Philip Services, Columbia, IL (Dale Markley, CGWP, 618/281-1540), on a winning proposal to perform these services, using Geoprobe to sample aquifer media, and a combination of physical-chemical and biological analyses to define the current conditions in the aquifer. Based on information gathered, an emphasis on improving and managing the performance of the wells, rather than a focus on ground water quality remediation, was recommended. Recommendations are made for further action, treatment, and wellfield improvements to improve yield and quality. Completed in September 2001, on schedule. Further well rehabilitation planning and interaction with PRP was in progress.

Village of Carey, Ohio. Source water protection planning and wellfield resource optimization. Roy Johnson, Village Administrator (419/396-7681)

Carey has a wellfield developed in Silurian dolomite, but affected by nearby very large quarries and shallow upper Silurian to Devonian karstic "ridge" carbonates vulnerable to surface effects. The village requested that we develop a wellhead protection area delineation based on hydrogeologic analysis, and an associated management plan (2002-ongoing), rather than having the OEPA do it for "free". Data were collected for a water table map spanning the variety in heads and output flows in the region (including the 100-ft drop into quarries), an aquifer test conducted at the wellfield without disrupting water production operations, fractures were delineated to define the geometry of the flow field and to refine regional transmissivity values. Information was integrated with CAD and electronic topo maps from several sources in our GIS system with SURFER, and modeling conducted using a MODFLOW-MODPATH package integrated with ArcView and SURFER. A WHPA delineation report has been submitted for endorsement and a SWPP developed. A final WHPA was endorsed incorporating OEPA's views of hydrogeologic parameters determined from 80 miles away. Future work planned includes assessments of well performance and developing options to reduce seasonally detectable nitrate (sub-MCL), and planning in relation to extended quarry operations.

Village of Danville, Ohio. Robert Shipley, Administrator, 740/599-6888



(1) Danville is in the process of developing a new wellfield and water treatment plant, being designed by Bird+Bull. Ground Water Science worked with the village and MTWSI to deal with existing well water quality problems, including a new well installed in 2003 that experienced problems with passing coliform tests, as did an existing well that previously had no record of bad samples. Ground Water Science developed a plan to identify the source of the problems and to solve them without intrusive, expensive repairs. After a second well provided poor yield, Ground Water Science conducted exploration in the wellfield to find optimal well positions in the mixed sandstone-shale sequence; design, test and certify new wells; and bring them to production. A new 400-gpm well was successfully brought into production. 2002-present. (2) With MTWSI, Ground Water Science is aiding the village in defining and mitigating an ammonia plume in the vicinity of their wastewater treatment lagoons (2007-present).

Mercer County Water and Sewer, Celina, OH, Kent Hinton, Jared Ebbing, Development Director 419/584-1982

Mercer County is a growing area of the state with increased water demands. However, the county's major municipal supplier, Celina, is faced with quantity limits and quality problems with its lake water source, even with sophisticated water treatment. Efforts to secure surface or ground water supplies are further hampered by the proximity of the Lake Erie-Gulf of Mexico watershed divide. The Great Lakes Compact requires that water from the Lake Erie watershed be returned to the watershed. The county is developing new wellfield capacity for domestic and industrial water supply. Video inspections, step tests and aquifer tests were conducted on existing wells constructed in 2001-2002 to define individual well performance and overall withdrawal impact on the area. A hydrogeologic framework was defined to focus additional well site locations and overall development strategy. Planning is now under way to develop at least 2-MGD of capacity from the current wellfield and to explore others, and to bring these supplies into service. Withdrawal of the planned anchor industrial water user has interrupted progress. Ground Water Science is working closely with engineers Fanning & Howey and the county. 2004 and ongoing.

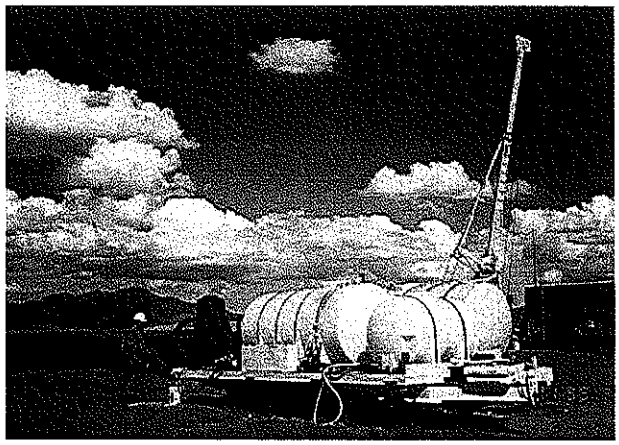
Village of New Washington, Ohio and McGhee Technical Water Services Inc. Lonnie McGhee (MTWSI) 419/886-4716

New Washington operates a marginal surface water supply. "Conventional wisdom" is that ground water is unavailable in municipal capacity in the area. Ground Water Science has conducted preliminary ground water exploration, locating promising aquifer targets for the village to explore, and test drilling to define potential capacity and water quality. Planning with OEPA and the village was under way when the village accepted an offer to have a regional water supplier purchase its system and supply it water. (2005-2009). Plans are under way to interest other potential buyers in the defined high-capacity ground-water resource.

City of Richmond, MI, Jon Moore, City Manager 586/727-7571

Richmond has a series of deep gravel wells supplying more than 2 MGD, with ground water operations handled by an outside contractor. One well was brought on line years after construction and produced poor water quality. Rehabilitation was attempted, but proceeded with difficulty and well damage occurred. Ground Water Science was engaged to assist the city in its decision-making process and to supervise and document attempted well rehabilitation and new constriction. October 2004-2008.

vision: Conduct a field evaluation of biofouling in an earthen dam drainage system and provide recommendations for rehabilitation and maintenance treatment as part of a multidisciplinary team (2001). Treatments have to be designed to avoid negative impact on downstream ecological resources. Pilot studies and comprehensive system-wide planning of treatment for dams are in process, starting with analyses of clogging and corrosion potential. Denise Hosler. October 2000-ongoing.



ARCC Inc., Daytona Beach, FL for U.S. Army Corps of Engineers. Development of detailed "engineering pamphlets" (technical publications) in (1) mitigation and maintenance methods (completed and published on USACE web site) and (2) rehabilitation planning and methods for problems of pumping and reinjection wells on hazardous and radioactive waste sites. August 1998-December 2000.

C.C.A. Limited, Carenage, Canouan, St. Vincent and the Grenadines. Conduct analysis of biofouling, corrosion rates, potential causes and recommendations for resort sea water and ground water treatment plants and distribution systems. October 1999-May 2000.

Environmental services contractor to major energy fuel facility, KY (as of now confidential). Conduct analysis to define biofouling and biocorrosion mechanisms involved in the rapid corrosion of multiple monitoring well casing, potentially compromising critical data on potential chemical and radiological contamination of ground water. Smith-Comeskey supplied project scope, an on-site laboratory capability to analyze for microbial contributors to biocorrosion, documentation of evidence of biocorrosion from pulled well components, and definition of a method to measure corrosion potentials between inner and outer casings through grout. Project conducted on a very rapid time scale. October 2000-2001.

Village of Byesville, Ohio. Conduct an investigation of causes of rapid filter fouling and persistent occurrence of certain heterotrophic bacterial genera in distribution system water. Wells and downstream treatment system components were sampled for analysis of biofouling parameters, and data on microbial occurrence reviewed for patterns. Report with recommendations to date. January 2001-2004. The affected wellfield was abandoned and surface water treatment installed to treat mine-affected water.

National Ground Water Well Association, Westerville, Ohio. NGWA selected Ground Water Science to conduct a FEMA-funded study of emergency well disinfection methods to refine response to large-scale flooding events such as hurricanes. The project involves literature reviews and testing disinfection methods on a variety of wells in coastal North Carolina affected by Hurricane Floyd in 1999, and involves a well inspection and treatment subcontractor (EGIS, P.A., Chapel Hill, NC) and peer review of results. The project was completed as scheduled in September 2002 (>$90,000 budget). We have conducted projects for NGWA since 1983.

University of Cincinnati Genome Research Institute, Cincinnati, Ohio. U.C. took over an existing animal study facility with piped water systems subject to biofouling. Engineering and testing contractors for facility restoration turned to Ground Water Science for planning and executing biofouling testing and recommendations for remediation and ongoing maintenance to assure quality water to experimental animals. Initial testing conducted in 2002, followed by testing of the rebuilt system in 2003. When finished, then reporting to Nelson Stark Co., Cincinnati, the facility was in the final planning phase in preparation for lab animal delivery.

RESUME

Allen E. Comeskey, MS, RG, CPG, Partner
Smith-Comeskey Ground Water Science

PROFESSIONAL EMPLOYMENT HISTORY

September 1996-present: Smith-Comeskey Ground Water Science LLC (partner), 295 S. Lawn Ave., Bluffton, OH 45817USA. Tel: 419/358-0528, allen@groundwaterscience.com. URL http://www.groundwaterscience.com.

Scope of services: Advising clients on ground water supply issues; planning and analyzing aquifer and step testing; numerical modeling and wellfield protection and planning studies, both in glacial-fluvial and fractured carbonate rock settings; geology; GIS.

January 1995-March 1996: Leggette, Brashears and Graham, Inc., Trumbull, CT 06611. Position: Hydrogeologist II, responsible for supervising test drilling, monitoring well installation and sampling at remediation sites, numerical modeling of aquifers to delineate wellhead protection areas, assisting with aquifer tests.

August 1993-January 1995: Earth Data Inc., St. Michaels, MD 21663. Position: Hydrogeologist, responsible for record keeping and report writing for remediation projects; aquifer test analysis; hydrogeologic analysis; performing geophysical logging.

September 1989-June 1993: Dept. Of Geology and Geological Engineering, University of North Dakota, Grand Forks, ND 58202. Position: Teaching/Research Assistant. Responsible for teaching geology laboratories and assisting in department research.

September 1979-July 1989: North Dakota State Water Commission, Bismarck, ND 58505. Position: Hydrogeologist supervising test drilling for county ground water studies and other hydrogeological investigations, operating and maintaining borehole geophysical logger, logging 50,000 ft of borehole per year; radiation safety officer.

September 1978-September 1979: Freeport Exploration, Elko, NV and Utah Geological and Mineral Survey, Salt Lake City, UT. Positions: Logging drilling cuttings and collecting samples for gold and coal exploration projects.

EDUCATION

Degrees and Emphases:

MS, Geology, University of North Dakota, Grand Forks, ND 58202 (1993). Thesis: The Hydrogeology of Agnes Marsh, Grand Forks, ND.

BS, Geology, Bowling Green State University, Bowling Green, OH 43403 (1978).

Selected Continuing Education:

Ground water flow and well hydraulics for porous and fractured media; Analysis and design of aquifer tests including slug tests and fracture flow; geographical information systems, photogrammatic analysis (LIDAR, etc.), environmental project management. Hold 40-hr + supervisor OSHA HAZWOPER certification.

PROFESSIONAL CERTIFICATION AND REGISTRATION

Certified Professional Geologist (#9880), American Institute of Professional Geologists.

Registered Professional Geologist (Pennsylvania, #PG-001844-G and Indiana, #1788).

PROFESSIONAL AFFILIATIONS

American Institute of Professional Geologists; National Ground Water Association; International Association of Hydrogeologists; American Water Works Association.

SELECTED PUBLICATIONS OF THE PRINCIPALS

Smith, S.A. 1980. A layman's guide to iron bacteria problems in wells. *Water Well J.* 34(6): 40-42 (reprinted in AWWA *OpFlow*, Feb. 1981).

Comeskey, A.E. and J. Reiten, 1982. Ground-Water Resources of the Surrey Area, Ward County, North Dakota, North Dakota Ground-Water study No. 87, North Dakota State Water Commission, Bismarck.

Comeskey, A.E. 1985. Flowing Well Pressure Changes in the Knife River Area, North Dakota State Water Commission, Bismarck.

Smith, S.A. and O.H. Tuovinen. 1985. Environmental analysis of iron-precipitating bacteria in ground water and wells. *Ground Water Monitoring Review* 5(4): 45-52.

Comeskey, A.E. 1989. Hydrogeology of the Plaza Area, Mountrail County, North Dakota, North Dakota Ground-Water study No. 94, North Dakota State Water Commission, Bismarck.

Smith, S.A. 1990. Well maintenance and rehabilitation in North America: an overview, pp. 8-15. in: *Water Wells: Monitoring, Maintenance, Rehabilitation* (Proc. of International Groundwater Engineering Conference, Cranfield Institute of Technology, Cranfield), E&FN Spon, London, UK.

Eggington, H.F., et al.. 1992. *Australian Drilling Manual.* Australian Drilling Industry Training Comm., Macquarie Ctr., NSW. (553 pp. Smith principal editor: and section author.)

Smith, S.A. 1992. *Methods for Monitoring Iron and Manganese Biofouling in Water Supply Wells.* AWWA Research Foundation, Denver, CO (96 pp.).

Smith, S.A. 1992. New developments in water well restoration. (Invited paper) in: *Proc. Drill '92, Conference of the Australian Drilling Industry Assn., Perth, W.A., October 1992.* West Australia Branch, ADIA, Fremantle, W.A., Australia.

Comeskey, A.E. and P.J. Gerla, 1993. Estimation of Wetland Water Budget: Agnes Marsh, *Agronomy Abstracts*, American Soc. of Agronomy.

Borch, M.A., S.A. Smith, and L.N. Noble. 1993. *Evaluation and Restoration of Water Supply Wells.* NGWA for AWWA Research Foundation, Denver, CO (270 pp.).

Smith, S.A. 1995. *Monitoring and Remediation Wells: Problem Prevention, Maintenance and Rehabilitation.* CRC Lewis Publishers, Boca Raton, FL (183 pp.).

Clancy, J.L. and S.A. Smith. 1995 and 2004. Iron bacteria, Chapter 2. In: *Problem Organisms in Water: Identification and Treatment.* Manual M7, American Water Works Assn.

Smith, S.A. 1996. Monitoring biofouling in source and treated waters: status of available methods and recommendations for standard guide. *Sampling Environmental Media*, ASTM STP 1282, J.H. Morgan, Ed., ASTM, West Conshohocken, PA, pp. 158-175.

Australian Drilling Industry Training Committee (including S.A. Smith). 1997. *Drilling: The Manual of Methods, Applications and Management.* (Co-editor/section author.) CRC Lewis Publishers, Boca Raton, FL (replaced 1992 ed.).

Smith, S.A. 1997. Well Construction, maintenance and abandonment: How they help in preventing contamination. *Under the Microscope: Examining Microbes in Groundwater,* Proc. Groundwater Foundation's 1996 Fall Symposium, AWWA, Denver, CO.

Comeskey, A.E. 1997. A Study to Provide Integrated Scientific Management of a Municipal Wellfield (abstract and presentation), Annual Conference, Ohio Section AWWA, Columbus, OH, September 1997.

National Ground Water Assn. 1998. *Manual of Water Well Construction Processes.* NGWA, Westerville, OH (Stuart Smith principal author/editor). Also participated in the 2010 revision.

S.A. Smith. 1999. Source water quality management: Groundwater (Chap. 4a). *Water Quality & Treatment* Fifth ed. AWWA and John Wiley & Sons, New York.

Alford, G., Roy Leach and S.A. Smith. 2000. Operation and Maintenance of Extraction and Injection Wells at HTRW sites, EP 1110-1-27, U.S. Army Corps of Engineers, St. Louis.

Making Sure You Get What You Need in Ground Water Supply

Smith-Comeskey Ground Water Science **is a highly experienced provider of quality planning and troubleshooting for installing and improving ground water source water supplies. We "do ground water" every day.**

- **We are first and foremost professional hydrogeologists. We devote ourselves to quality ground water supply.**
- **In cooperation with your engineers, we take care of all "the ground water stuff" on new well projects: selecting well contractors, job observation, testing and documentation, even maintenance planning.**
- **We know well contracting and make sure you get the most from your investment. On *your* project we are *your* eyes and ears and make sure that everything going into the ground is top quality.**

Experienced Staff:

The Ground Water Science principals, Stuart Smith and Allen Comeskey, are certified and licensed geologists and ground water professionals with advanced degrees. Smith is also an environmental microbiologist. *Each* contributes over 30 years of varied, quality, hands-on professional experience to the firm. They bring their old-fashioned personal care and "by the book" standards, cutting-edge expertise – and *passion* for quality in ground water supply – along on each project, large or small.

Our approach to managing ground water projects works to your advantage:

- **We research and plan up front to understand the details of your ground water situation – no "cookie cutter" approach here.** We use maximum available information to write the specs and take competitive quotes to give you the best "bang for your buck"
- **We know and provide specialized expertise that you need.** We competitively preselect well contractors and other experts in specialties you need – we select people known for their commitment to quality and who are best suited to your particular job. We vouch for their qualifications and reliability.

WE TRAIN:

Face-to-Face Training to increase your ground water know-how:

Talk topics from Ground Water Science (can be modified for specific needs):

- **Day-long well and wellfield maintenance course (7 hr)[+†]**
- **Ground water and wells for public water supply officials (6.75 hr)[+†]**
- **Valid ground water SWAP delineation: A quick review (0.5-1.5 hr)**
- **BART (and other) testing for biofouling and biocorrosion monitoring (1 hr)[+]**
- **Aquifer and well testing - getting valid information (1-2 hr)[+]**
- **An introduction to well and wellfield performance maintenance 1.5 hr**
- **Wellhead and well site security 1 hr[+]**

[+] Field or lab training, demonstration, or consultation available. All OEPA contact hours approved. [†]Indiana contact hours approved. Other states can be arranged.

At our place or yours...

☑ Have us bring our course or short talks to your place or program, customized to your needs and interests

☑ Don't forget - If we provide professional services, we train and that counts for contact hours

And don't forget our newsletter *Ground Water Science Flowlines* – posted on our informative web site www.groundwaterscience.com

Interest Form

☐ Training at the inquirer's site or program
☐ Your upcoming course dates and programs
☐ Make sure we're on the *Flowlines* newsletter notification list

Please complete as much of the following as you wish and mail to 295 S. Lawn Ave., Bluffton, OH 45817USA or email it to info@groundwaterscience.com.

Name: _____
Organization: _____
Postal address: _____
City, state, zip: _____
Telephone: _____
Email address: _____

Thank you for your interest in our services. Best wishes for a good year.

References

1.	Honorable Dick Callaway	City of St. Albans Post Office Box 1488 St. Albans, WV 25177 (304) 727-2971
2.	Mr.Dennis Kincer, P.E.	WV Division of Natural Resources Wildlife Resources State Capital Complex, Building 3 1900 Kanawha Boulevard, East Charleston, WV 25305 (304) 558-2771
3.	Mr. William "Willie" Parker County Administrator	Upshur County Commission 38 Main Street, Room 302 Buckhannon, WV 26201 (304) 472-0535
4.	Honorable Damron Bradshaw Mayor	City of Chesapeake 12404 MacCorkle Avenue Chesapeake, WV 25315 (304) 949-1496
5.	Mr. John Morrison, PE Acting Section Head	Engineering Design Division WVDOT - Division of Highways Building Five, Room A-317 1900 Kanawha Boulevard, East Charleston, WV 25305 (304) 558-2838
6.	Mr. Bill Wellings Airport Manager	Buckhannon-Upshur County Airport Authority 38 West Main Street Buckhannon, WV 26201 (304) 472-0535

RFQ No. DNRB11013

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

West Virginia Code §5A-3-10a states: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate

DEFINITIONS:
"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

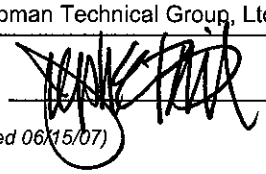
EXCEPTION: The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

LICENSING: Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agencies or political subdivision. Furthermore, the vendor must provide all necessary releases to obtain information to enable the Director or spending unit to verify that the vendor is licensed and in good standing with the above entities.

CONFIDENTIALITY: The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures and rules. Vendors should visit **www.state.wv.us/admin/purchase/privacy** for the Notice of Agency Confidentiality Policies.

Under penalty of law for false swearing (West Virginia Code, §61-5-3), it is hereby certified that the vendor acknowledges the information in this said affidavit and are in compliance with the requirements as stated.

Vendor's Name: Chapman Technical Group, Ltd.

Authorized Signature:  Date: September 2, 2010