

# Well Connected®



*A Publication of the Water Systems Council*

## SCREVEN COUNTY, GA: WELLS PROVE COST EFFECTIVE

Individual wells are the most cost-effective system for providing clean drinking water to the vast majority of residents living in rural Screven County, GA and can help the county meet its economic development goals, according to a report prepared by Water Systems Council (WSC), in partnership with the Georgia Department of Community Affairs and the Association of County Commissioners of Georgia.

Construction costs for a water system based on private and community wells were \$290,000, or 28 times less expensive than the \$8.5 million needed to construct a public water system to serve the same population and economic development needs.

**SCREVEN COUNTY WELLCARE® PILOT PROJECT  
Preliminary Budget Comparison**

Projected Costs	Private Well Plan	Public Water Connection
Const. Contingency (20%)	\$39,720	\$1,197,180
Const. Administration	9,500	290,000
Permitting/Env. Comp.	7,000	215,000
Engineering	24,000	577,000
Project Management (legal, etc.)	12,000	288,000
<u>Construction Costs</u>	<u>198,600</u>	<u>5,985,900</u>
<b>Totals</b>	<b>\$290,820</b>	<b>\$8,553,080</b>

Following five years of drought and increasing salt water intrusion in groundwater in Georgia's coastal counties, Screven County was one of three selected in 2003 to develop sustainable ground water plans that include individual wells as an essential part of the drinking water delivery system. The challenge in Screven was to meet local economic development goals and qualify for federal funds for the project.

More than half of the county's residents, 8,367 people, are served by household or shared wells, while 7,007 are served by public water systems. Planners considered five options: a county-wide public water system, extending existing municipal water systems and expanding the number of community wells, shared wells and individual wells.

The countywide system, estimated to cost \$170,000 per mile, was ruled out due to the prohibitive cost. The extension of municipal systems was only cost effective with a high density of unserved residents near the town (not the case) and, even then, was comparable with the cost of individual well construction. The cost for community and shared wells was much lower than the other options in areas of high density and no water service.

It turned out, individual wells were the most cost-effective option for the majority of residents in the unincorporated areas of Screven County. Average local well costs range from \$3,000 to \$4,500, with a typical minimum flow of 10 gallons per minute.

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<b>Attend the WSC FALL 2005 MEMBERS MEETING November 9-11, 2005 Sanibel Island, Florida</b>	

# Highlights of the 2005 Spring Members Meeting



## WASHINGTON UPDATE

### WSC Presents Congressional Leadership Awards

WSC honored two members of Congress with 2005 Congressional Leadership Awards at the Spring Members Meeting in Washington, DC, March 2-4. Nebraska Senator Ben Nelson (c.) received his award at the WSC President's Welcome Reception, March 3, from WSC President Jim Dunbar and WSC Executive Director Kathleen Stanley.



A member of the Senate Agriculture Committee, the Democratic senator has played a leading role in national drought issues for the past five years. But WSC honored Senator Nelson for his long-time commitment to rural well owners and ground water protection, both in Nebraska and nationwide. The Senator is a strong supporter of the Groundwater Foundation, a WSC national partner, and the Children's Groundwater Festivals in Nebraska. Susan Seacrest, President of the Groundwater Foundation, praised the Senator for his leadership. By presenting Senator Nelson with this year's wellcare® award, WSC thanked him for his support of WSC and its wellcare® program.

U.S. Representative John Linder of Georgia's 7th District (I.) was honored at the WSC Members Luncheon, March 4, for his great support of the wellcare® program. A member of the House Ways and Means Committee, the Republican Congressman was instrumental in establishing a nine-member 21st Century Water Commission to ensure ample fresh water for the next 100 years.



### EPA Drinking Water Chief: wellcare® Hotline a "Safety Net"



Stephen Heare, Director of the US EPA Agency Drinking Water Protection Division, with WSC Executive Director Kathleen Stanley.

WSC's wellcare® hotline "is a great service to the EPA," Director of the U.S. Environmental Protection Agency Drinking Water Protection Division Stephen Heare announced at the Spring Members Meeting, March 3. Mr. Heare said that the EPA's website gets more hits on private wells than on any other topic and the wellcare® hotline serves as a "safety net" for concerned citizens who need more information about wells and water quality.

Mr. Heare also described EPA's source water protection program and new rulemaking expected in the area of ground water, which he called "a threatened resource." The new rules will require public water systems to measure the risk of ground water contamination and file plans for treatment or other measures.

"More than 85 billion gallons of ground water is pulled up for use every day in the U.S., " Mr. Heare said. "This vital, vital resource is susceptible to contamination from underground storage tanks, agricultural activities, leaking septic systems, organic and inorganic contaminants, and threatened by excess pumping and salt water intrusion. We've got serious issues and a lot of work to do," he concluded.



Dennis Coggins, Goulds Pumps/ITT Industries, Seneca Falls, NY



Jerry Laughlin, Pentair Water Group/WellMate, Chardon, OH

### Industry Forum

National Ground Water Association President Larry Lyons (r.) visited with WSC Board and members, including Jesse Richardson, WSC's Policy and Research Advisor. This event is a great example of how WSC, NGWA and other groups are coordinating their efforts to benefit the industry.





## Committee Staffer Briefs WSC Members

**Bill Simpson (I.), Professional Staff Member, Senate Appropriations Subcommittee on Agriculture, Rural Development and Related Agencies, provided an overview of the new Congress and its challenges.**



**Bill Mills, 2M Company, Billings, MT (I.) with Senator Max Baucus, Montana**

## WSC Members Visit Capitol Hill

Twenty-three WSC members made a combined total of 88 visits to their members of Congress on March 1 and 2 to discuss issues of importance to water quality and the water well industry. Our sincere thanks to:

### Steve Anderson

Merrill Manufacturing, Storm Lake, IA

### Bo Andersson

Danfoss Flomatic, Glens Falls, NY

### Kathy Berrill

A.O. Smith Corporation, Stratford, ON and Tipp City, OH

### Sharon Biggs

Schneider Electric/Square D, Raleigh, NC

### David Caldwell

Ferguson Enterprises, Newport News, VA

### George Caudle

Schneider Electric/Square D, Raleigh, NC

### Burnet Chalmers

Milby Company, Elkridge, MD

### Dennis Coggins

Goulds Pumps/ITT Ind., Seneca Falls, NY

### Jim Dunbar

Franklin Electric/Franklin Pump Systems, Little Rock, AR

### Nick Farrara

Danfoss Flomatic, Glens Falls, NY

### Ken Ferri

Amtrol, Inc., West Warwick, RI

### Joe Lane

Amtrol, Inc., West Warwick, RI

### Jerry Laughlin

Pentair Water Group/WellMate, Chardon, OH

### Gerard McKeown

Amtrol, Inc., West Warwick, RI

### Bill Mills

2M Company, Billings, MT

### Buzz Mills

2M Company, Billings, MT

### Jim Paulhus

Blake Equipment, Bloomfield, CT

### Dan Rickard

Rickard Sales, Hillsboro, OR

### Larry Seitter

Grundfos Pumps, Olathe, KS

### Tom Sterzing

Austin Pump & Supply, Austin, TX

### Robert Stone

Franklin Electric/Franklin Pump Systems, Bluffton, IN

### John Surinak

Maass Midwest Mfg., Huntley, IL

### Robert Ubriaco

Goulds Pumps/ITT Ind., Seneca Falls, NY



**Congressman Dennis Moore (I.), Kansas and Larry Seitter, Grundfos Pumps, Olathe, KS**



**Dan Rickard (I.), Rickard Sales, Hillsboro, OR, and wife, Edie, with Senator Ben Nelson.**

## WSC Committees Report to Spring Meeting

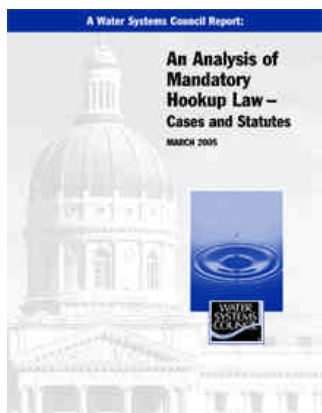
The 40 WSC members attending the 2005 Spring Meeting received briefings from each of WSC's committees on industry standards and publications. Some highlights:

### Technical Committee \* Chair: DeLancey Davis

The first draft of the revised 12th Edition of the *Water Systems Handbook* has been completed. The new handbook will be available in late 2005.

### Tank Committee \* Acting Chair: DeLancey Davis

The WSC Pressurized Water Storage Tank Standard (PST-2000) has been submitted to ANSI for approval, which is expected in late 2005. If you would like further information about the voluntary standard or the WSC listing program and process, contact WSC Member Services at 202-625-4387 or visit the WSC website at [www.watersystemscouncil.org](http://www.watersystemscouncil.org).



## Updated Mandatory Hookup Report Released

Nine new state statutes and six new court opinions have been added to WSC's study of mandatory public water system connection laws. The new report, *An Analysis of Mandatory Hookup Law: Cases and Statutes, March 2005*, was released at the Spring Members Meeting. WSC members distributed copies to their Congressional representatives during the meeting.

More than half of all states require or have the potential to demand connections to public water systems, even where private wells can provide a safe, more affordable drinking water source. The mandatory hookup report has been instrumental in encouraging local, state and national officials to consider the impact of mandatory hookup requirements on private well owners.

The report was updated based on research by attorneys Jesse J. Richardson, Jr., professor of urban affairs and planning at Virginia Tech, and Elisabeth Chaves, research associate at Virginia Tech and a law clerk at Payton and Carlson, P.A., Miami.

AROUND THE STATES

## WSC Rapid Response Team Aids Big Victory in Ohio



The wellcare® Hotline received an urgent request last September from concerned well owner Don Nixon of Hartville, a village in eastern Ohio. He said the public was being misled about the costs and benefits of private wells versus a public water system prior to a local government referendum on extending public water lines into his rural area.

WSC's Rapid Response Initiative team provided Mr. Nixon with information sheets, ads and strategies to help Hartville wellowners get organized to combat the expensive, unneeded public water connection. Their effort and expertise paid off when the referendum was rejected overwhelmingly, 72 to 28 percent.

"The information that [Water Systems Council] sent was crucial in defeating this measure," Mr. Nixon said. "It gave us the fodder we need to defend the attacks on our wells. It was vital to combat the false information on economic development and water contamination the village presented at public meetings," he said.

## West Virginia Court Case Finds for Well Owners

A jury in the Circuit Court of Mingo County, WV recently found that a massive mining operation interfered with wells of 240 local residents and ordered the company to pay \$1.7 million to the homeowners in costs and compensation.

Delbarton Mining Company, a subsidiary of Massey Energy Company, Inc., was extending its Ruby Energy Mine near the towns of Duncan and Ooten Fork in 2000. Both communities rely on the Lower Cedar Grove aquifer to supply their wells.

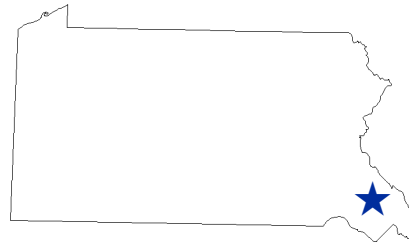
Almost immediately after the work began, residents started to report dry wells and poor well water quality. In all, 200 households were affected. One state official called it the worst well loss in West Virginia history. Worse, replacement water trucked into the community was contaminated by bacteria and some residents got sick.

The jury found that the coal company caused damage to local hydrology, violated state regulations governing their mining activities, was negligent in failing to protect the plaintiffs' water supplies and was liable for these actions. Following the seven-week trial, the jury awarded \$829,000 to cover the future cost of replacement water and \$650,000 to compensate local well owners for the aggravation.

WSC is monitoring the case due to its importance in establishing a homeowner's rights to use of their well in the wake of a powerful corporation's attempts to ignore those rights. Both sides may appeal.

## PA County Regulates Private Wells

On March 31, private well owners or their well professionals in Bucks County, PA must secure a \$100 permit to modify a well or drill a new well and must follow new well siting and construction regulations. Existing wells and those needing pumps replaced because of failure will not require permits under the new plan, according to officials in the county, a rapidly developing area near Philadelphia.



The regulations establish setback requirements for new wells: 100 feet from an existing sewer system, 200 feet from barns or manure pits, 300 feet from fertilizers and commercial storage areas like salt piles, and 100 feet from spray irrigation or septic field lines. Well caps must be sealed with grout in the presence of a county inspector. Water quality tests are required before a final well permit is issued.

## Perchlorate Standards In Flux

While the federal government in February issued a new, more permissive safety standard for perchlorate, a toxic chemical used in rocket fuel and explosives, California officials were being urged to adopt the agency's earlier and much tougher standard.

Perchlorate contamination in water and soil is attributed mainly to waste from military bases, aerospace installations and defense contractors that build rockets. A small amount of perchlorate contamination in the United States has been traced to a salt-based fertilizer made in Chile. To date, 26 states have documented contamination in water supplies, with California containing the greatest number of sites. A total of 40 states have identified significant use of the chemical.

The U.S. Environmental Protection Agency (EPA) is studying the regulation of perchlorate, but has not issued a Maximum Containment Level (MCL) for the substance in public water supplies. Two years ago, the EPA indicated that perchlorate could be harmful at levels of one part per billion (ppb) and that the agency could order a cleanup of water supplies if perchlorate levels reached four ppb.

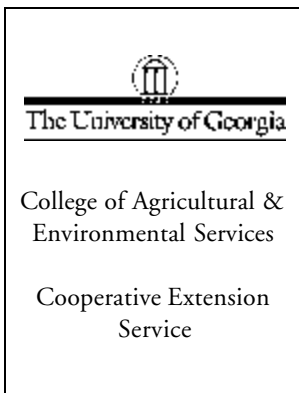
In February, EPA set a higher safety level of 24.5 parts per billion, to guide cleanup of Superfund sites. A month earlier, a coalition of clean water advocates in California called on elected officials and the California Department of Health Services to set the maximum standard at the EPA's earlier level, one part per billion.

## Downwell Camera Offers Innovative Well Diagnosis

By Tina Pagan and Dr. Paul Vendrell

Over the past six months, the University of Georgia Cooperative Extension Service has been using a downwell camera to gain a better understanding of private drinking water wells that have concerns identified by a drinking water well test. The downwell camera captures footage that allows a specialist to check the integrity of a well's casing, depth of casing, seepage at joints, corrosion problems, leaks, foreign materials, aquatic and terrestrial invertebrates, tree roots and water depth.

Images below illustrate some common problems associated with improper well construction, lack of wellhead maintenance, and slow response time to problems. Take a closer look...



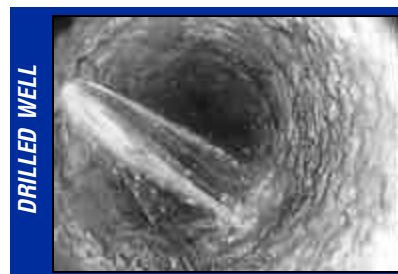
*Lack of grouting allows water to seep into the well – water carrying contaminants can pollute drinking water.*



*Seepage at the joints of a bored well – shallow water flows into the well carrying contaminants and can pollute drinking water.*



*Older wells are more prone to problems such as roots – roots can grow in between the joints of casing. Also, this well's groundwater is under the direct influence of surface water.*



*Older drilled steel wells can get holes in the casing – shallow water at the hole flows into the well rather than the water at the deep portion of the well.*

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This article is reprinted with the kind permission of Tina Pagan and Dr. Paul Vendrell of the University of Georgia Cooperative Extension Service, who are using the downwell camera to develop educational materials for wellowners in Georgia. For more information, contact Ms. Pagan at 706-542-7661 or [tpagan@enr.uga.edu](mailto:tpagan@enr.uga.edu) or Dr. Vendrell at 706-542-7690 or [pvendrel@uga.edu](mailto:pvendrel@uga.edu)

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## wellcare® Hotline Busy in the New Year

The WSC wellcare® Hotline logged 484 calls in January and February, a strong start for 2005, with the greatest number of calls coming from New York, Maryland and Virginia. In January, 94 callers had questions about potential water contaminants, while in February, more than 107 calls involved general information or mechanical questions. Wellowners, homebuyers and mortgage companies topped the list of callers. The bulk of inquiries continue to come in from the link to the U.S. EPA hotline.



## WSC MEMBER NEWS.....

## WSC Plans Further Training for Well Professionals

Training for water well contractors and pump installers continues to expand with sessions on submersible pumps planned throughout the East Coast in 2005. The courses are being developed by WSC. Courses will be developed to cover all sections of the *Water Systems Handbook*. Next to come are sessions on "Constant Pressure" and "Tank Sizing."

### 2005 PROFESSIONAL TRAINING COURSES (as of March)

Massachusetts	April 2	New England Well Water Assoc.
South Carolina	July 30	South Atlantic Jubilee
Connecticut	September 22	Connecticut Well Water Assoc.
Georgia	December	NGWA Expo

## wellcare® Workshops Reached 1,000+ in 2004

WSC held 14 wellcare® Workshops in 11 states last year, representing 3.2 million household wells, or more than 15 percent of all private wells nationwide. The workshops reached more than 1,050 well owners, sanitarians, staff from state and county agencies, local leaders, elected officials, water district managers, planners and engineers.

Eighty-five percent of those attending said the information they gained from the workshops "will help in recommending and/or designing potable water systems (wells) for individual households," while 95 percent rated the workshops "excellent."

### 2005 WELLCARE® WORKSHOPS (as of March)

March 7-8	Dalton, GA
April 14	Lincoln, NE
May 24	Savannah, GA
June 24	South Bend, IN
August 11	Short Pump, VA (near Richmond)
September 21	Cromwell/Meriden, CT (wellcare®)
September 22	Cromwell/Meriden, CT (pump installers)
September 24	Wye Mills, MD

## WSC Calendar

### MAY 2005

- 19 WSC Board of Directors Meeting, Reston, VA

### JULY - AUGUST 2005

- 30-2 50th Anniversary South Atlantic Well Drillers Jubilee, Myrtle Beach, SC
- 2 Board of Directors Meeting

### NOVEMBER 2005

- WSC Fall Members Meeting, Sanibel Island, FL
- 9 Golf Tournament
- 10 Committee Meetings, Member Meetings
- 11 Board of Directors Meeting

WSC Members... Send your news about personnel changes and other items of interest for publication in future issues of Well Connected® to the WSC National Programs Office, 1101 30th Street, N.W., Suite 500, Washington, DC 20007 or e-mail to: [memberservices@watersystemscouncil.org](mailto:memberservices@watersystemscouncil.org)



WSC NATIONAL PROGRAMS OFFICE  
1101 30th Street, N.W.  
Suite 500  
Washington, DC 20007

## Winning Water Festivals Winning Friends for Well Industry

A second Children's Water Festival was held in Georgia on March 8 at Dalton State College in Dalton. More than 1,900 4th and 5th grade students attended the festival. More than 1,500 students attended the first festival in March 2004 at Columbus State University in Columbus. WSC is an organizing partner and major sponsor of both events. More than 35 other organizations, agencies and companies from all over Georgia participated in the festival, which is based on a model from the Groundwater Foundation.

Planning continues for new Children's Water Festivals in 2006, one for students in Maryland/Delaware on March 23, 2006, at Chesapeake College in Wye Mills, MD and another at Catawba College in Salisbury, NC.



**Make Your Plans Now!**  
**November 9-11, 2005** 🦀 **WSC Fall Members Meeting**  
**Sanibel Island, Florida**