A water supply problem? 
In Central Kentucky?

A REGIONAL SOLUTION TO A REGIONAL NEED
AN ABUNDANT WATER supply is sometimes taken for granted in many parts of the country. The Bluegrass area is fortunate to have ample rainfall most months, which is evident through the lush green landscapes the region is internationally known for. But, there have been years in which water was not so plentiful, and the options for new sources of water were few.

“There are several serious threats to the supply of clean water brought to the homes and businesses in central Kentucky,” Nick Rowe, president of Kentucky American Water, said. “The day-to-day demand for water is increasing with the growth of the entire region and we need an additional source of water supply.”

Kentucky American Water first identified the need for an additional source of water more than 20 years ago. The three greatest concerns regarding water supply for the region are a severe drought, increased demand and an insufficient source of water supply.

There have been a number of technical studies conducted by governmental bodies, water utilities, and other groups about the water supply over the years. Last year William E. Grier, P.E., of the Kentucky River Authority, wrote a three-part series about the water supply issue for Business Lexington that provides an overview of the threats to our supply by drought and unreliable sources.

Perhaps the greatest evidence of the need for a better water supply is the extraordinary efforts taken in 1999 by water utilities throughout Central Kentucky to unite to study and resolve this issue. All have a mandate of providing water for the customers they serve, and all share concerns that alternative water sources are needed for a reliable supply.

Kentucky American Water has actively participated in and helped fund the Bluegrass Water Supply Commission (BWSC), as the regional group is now known. In 2004, BWSC released its Water System Regionalization Feasibility Study, which outlined the need for a new system to improve access to, and treatment and distribution of, water for Central Kentucky water districts. The report detailed the need for additional treated water for the Central Kentucky region and options for creating a regional solution to the problem. Based on this and other extensive research, it is clear that a major deficit in water supply currently exists and steps to address it must be taken.

“Kentucky American Water received a mandate from the Kentucky Public Service Commission, which regulates and oversees private utilities, to develop a solution to the water supply situation,” Linda Bridwell, P.E., Kentucky American Water’s manager of engineering, said. “In accordance with that directive, we filed a plan in late March of this year with the PSC to build an additional water treatment plant to provide customers with ample water supplies for the next several years.”

Kentucky American Water meets slightly more than half of the water demand for Central Kentucky water districts. The service area includes a portion of Bourbon, Clark, Fayette, Gallatin, Grant, Harrison, Jessamine, Owen, Scott, and Woodford counties.

In addition, ample supplies of water help fuel the jobs and services that people throughout the region rely on. For instance, Fayette County serves as the workplace for nearly 50,000 out-of-county residents. Toyota, in Scott County, has approximately 7,000 team members who live in about 75 counties. The plant has 90 suppliers based in Kentucky and has generated 35,000 jobs in the state.

Sixty-four percent of the adults and children needing care at Lexington’s hospitals live outside the county. Additionally, Kentucky American Water serves more than 2.6 million visitors who spend at least one night at an area hotel, shop in local stores, eat in local restaurants and attend sporting events throughout the year. All of these economic initiatives will be in jeopardy if the water supply issue is not addressed.

As a result of growing interdependence, the water supply issue is a regional one that requires cooperation and support of many in this part of the state to assure the quality of life we enjoy is maintained or enhanced for generations to come.
**USING WATER WISELY**

FROM THE GREAT LAKES TO the Great Barrier Reef and from California to Calcutta, people are facing the scary reality that their water supply is in trouble. Residents have taken to the streets in India to protest water cutbacks, and in Australia, severe water restrictions are in place. In the U.S., the problem is not quite as dire as it is abroad, but there are many areas that face major challenges.

In the Great Lakes area, lawmakers from eight states are reviewing a compact that prevents others from staking a claim to their water. It also requires each state to adopt a conservation plan and regulate water use.

Out West, lack of water is a major source of concern. The Colorado River supplies water to seven states, but scientists have concluded that demand is exceeding supply. They’ve also determined that conservation, although important and necessary, can’t do the job alone.

In California’s Santa Clarita Valley, water officials say it’s not just conservation, but using water more efficiently that will help the area maintain its precious resource. Every May the local water agency participates in California Water Awareness Month, where it offers demonstrations on water pollution, landscaping workshops and information on water saving tips.

Here in Central Kentucky the issue is not as severe as in some places, but it could be in a few years if steps are not taken now. As in the western part of the country, conservation alone won’t cure our water supply ills, but it is important to conserve.

Per person water use among Kentucky American Water customers is down, thanks in part to people being more aware of conservation measures. At the same time, demand all across the Bluegrass region is continuing to increase as our population and economy grow.

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Kentucky American Water offers conservation information, low-flow shower heads and educational programs in schools. For more information, contact Lancho at 859-268-6332 or visit www.awwa.org/waterwiser.
Regional cooperation: a clear solution

Communities all across the country are discovering the many advantages of working together to bring in new businesses, consolidate services and solve problems. Central Kentucky is no exception, and our water supply clearly is a regional issue that requires a regional solution.

Kentucky American Water is a regional company serving customers in 10 counties — Fayette, Clark, Scott, Woodford, Jessamine, Bourbon, Harrison, Owen, Gallatin and Grant — with a population of approximately 326,000. The average residential customer pays less than $22 a month for water service.

Since 1999 Kentucky American Water has been working with a group of municipal water utilities seeking a regional solution, and in 2004, the Bluegrass Water Supply Commission (BWSC) was officially created. Today the members are Berea, Cynthiana, Frankfort, Georgetown, Lancaster, Lexington-Fayette, Mt. Sterling, Nicholasville, Paris and Winchester. Kentucky American Water participates as a non-voting member, as do the Kentucky Infrastructure Authority and the Kentucky River Authority.

"This group has looked at many, many solutions to our region's water supply problem as have other agencies," said Linda Bridwell, Kentucky American Water’s representative with the BWSC. "We all agree that building a new treatment plant near the Kentucky River’s Pool three offers many advantages and is the most cost effective solution."

"The members of the BWSC understand that it is in everyone’s interest to work toward a regional solution because we all face the same problem," she said. "Anyone who thinks this is only a Lexington issue might be surprised to learn how crucial the solution is to all of our surrounding counties.”

The BWSC’s mission is to solve Central Kentucky’s long-standing lack of dependable water supply—particularly during dry times. Although it is imperative that residents of the region have a dependable source of water, the BWSC’s effort is linked to economic development as well. Without a safe, dependable, affordable supply of potable water, the region’s economic vitality cannot be sustained over time. The financial impact of one drought, where business is curtailed or even shut down, or the failure to attract just one

THE WONDER OF WATER QUIZ

1. What percentage of the earth’s water is fresh?
   a. 10
   b. 3
   c. 20

2. What is the source of energy for the hydrologic or water cycle?
   a. wind
   b. rain
   c. sun

3. What is not one of the three largest oceans?
   a. Pacific
   b. Indian
   c. Atlantic
   d. Arctic

4. What is the capacity of porous materials, such as sand and gravel, to transmit water?
   a. Portability
   b. Potability
   c. Permeability

5. What is the term used to describe the area drained by a river and its tributaries?
   a. Watershed
   b. Aquifer
   c. Forest

6. What is a water saturated land where aquatic plants and animals live?
   a. Aqueduct
   b. River
   c. Wetland

THE FINANCIAL IMPACT OF ONE DROUGHT, WHERE BUSINESS IS CURTAILED OR EVEN SHUT DOWN, OR THE FAILURE TO ATTRACT JUST ONE NEW
Industry far exceeds the cost of the new water supply project.

"The Central Kentucky economy is very much connected to all local communities," said Tom Calkins, Nicholasville’s representative on the BWSC and the group’s chair. "We all benefit from having new employers locate in the region, and we all depend on our local universities and technical colleges for workforce development. It’s imperative that we have a water supply that makes our area attractive to new employers or existing businesses that want to expand."

Winchester Mayor Ed Burtner is looking at the Kentucky American Water-BWSC supply solution to fulfill the commitment his community made to provide 1.6 million gallons more water a day for a new plant that will create 100 new jobs.

Burtner summed up what many have been trying to communicate, "If we can’t cooperate on this, we can’t cooperate on anything. I implore all of us to work in common cause..."

Because of the interconnectivity of the economy, the region’s leaders meet regularly to discuss water issues and a number of other important matters. The Blue Grass Area Development District, local chambers of commerce, Bluegrass Tomorrow and several other groups meet frequently to discuss how to improve the Bluegrass area.

Other areas of the country are looking into solving issues with regional partners as well. For example, a group of local business leaders recently learned how cities in the Denver metropolitan area have joined forces on a number of different projects that save money and increase efficiency. In fact, Boulder leaders said they missed a good opportunity to help another community solve a water problem. By not working with that community, the final solution was not as positive as it could have been.

It is likely more Central Kentucky issues will be solved in a regional manner in the future. Although it’s important for each community to retain its identity and those things that make each one special, the region can’t overlook the positive outcomes for all by working together.

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**Preserving Our Way of Life**

Kentucky American Water is dedicated to preserving and protecting the environment of Central Kentucky. The company is involved in a wide variety of programs that promote clean water, reforestation and wildlife preservation. Here are a few examples.

- First utility in the state to join the Kentucky Department of Environmental Protection’s Kentucky EXCEL environmental leadership program.
- Leading corporate sponsor of the Lexington-Fayette Urban County Government’s Reforest the Bluegrass project since its inception in 1999
- Annual sponsor of Arbor Day at the Arboretum, the state’s official botanical garden
- 2007 title sponsor of the Downtown Lexington Corporation’s Downtown Sweepstakes cleanup event
- Long-time leading corporate supporter of McConnell Springs, commonly regarded as the place where Lexington was named
- Corporate property in Fayette County is deemed wildlife friendly by the Kentucky Department of Fish and Wildlife’s Business Conservation Partnership program
- Provides funding annually to watershed protection causes and organizations through the American Water Environmental Grant Program
- Sponsors an annual scholarship for high school seniors focused on environmental stewardship, the Ripple Effect Scholarship Program, as well as an annual watershed protection poster contest.
- Helps sponsor a bird blind at the Clyde E. Buckley Wildlife Sanctuary in Frankfort
- One of the first donors to HealthWay programs that promote clean water, reforestation and wildlife preservation.
- 2007 title sponsor of the Downtown Lexington Corporation’s Downtown Trail, a biking trail under construction throughout Lexington
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**Questions and Answers**

1. How much water does it take on average to brush our teeth?
   a. 2 gallons of water
   b. 3 gallons of water
   c. 1 gallon of water

2. How much water on average do people use taking a shower?
   a. 15-30 gallons
   b. 20-40 gallons
   c. 25-45 gallons

3. How much water on average do people use taking a dishwasher?
   a. 1 gallon
   b. 5 gallons
   c. 10 gallons

4. How much water on average do people use taking a toilet flushing?
   a. 0.5 gallons
   b. 1 gallon
   c. 2 gallons

5. How much water on average do people use taking a dishwasher?
   a. 1 gallon
   b. 5 gallons
   c. 10 gallons

6. How much water on average do people use taking a toilet flushing?
   a. 0.5 gallons
   b. 1 gallon
   c. 2 gallons

7. How much water on average do people use taking a dishwasher?
   a. 1 gallon
   b. 5 gallons
   c. 10 gallons

8. How much water on average do people use taking a shower?
   a. 160 gallons
   b. 150 gallons
   c. 180 gallons

9. How much water on average do people use taking a dishwasher?
   a. 1 gallon
   b. 5 gallons
   c. 10 gallons

10. How much water on average do people use taking a toilet flushing?
    a. 0.5 gallons
    b. 1 gallon
    c. 2 gallons

11. How much water on average do people use taking a dishwasher?
    a. 1 gallon
    b. 5 gallons
    c. 10 gallons

12. How much water on average do people use taking a dishwasher?
    a. 1 gallon
    b. 5 gallons
    c. 10 gallons

**Answers can be found on the back page**
Kentucky American Water one of first to receive EPA award

Kentucky American Water is a member of the national Partnership for Safe Water, which was developed jointly by the U.S. Environmental Protection Agency (EPA), American Water Works Association, and other national drinking water organizations. The Partnership’s members make voluntary commitments to continued improvement that is designed to help utilities provide safer water to millions of Americans by implementing prevention programs more stringent than those required by law. These preventive measures focus on optimizing treatment plant performance, thereby increasing protection against microbial contamination.

Kentucky American Water began participating in the Partnership for Safe Water in 1996, and by 1998 became one of the first utilities in the country to receive the U.S. EPA’s Directors Award. This award is given to facilities that successfully complete the Phase III Self-Assessment requirements of this program. In 2003 both Kentucky American Water treatment facilities in Lexington were awarded the prestigious “Five-Year Director’s Award,” recognizing the company’s continued participation and overall excellence in treatment optimization.

Although many other facilities have now obtained the Director’s Award, Kentucky American Water is proud that it remains one of only three water systems in Kentucky to have this distinguished honor. The company also is very proud that through diligence and commitment to excellence by the operational and technical support staff, along with advances in technology application, Kentucky American Water continues to provide excellent filtered water quality and remains in good standing with the Partnership for Safe Water. Kentucky American Water continues to participate in the Partnership for Safe Water and is committed to providing its customers with safe water 100% of the time.

Kentucky American Water filed an application on March 30 with the Kentucky Public Service Commission (PSC) for approval to construct a new 20 million-gallon-a-day (mgd) water treatment plant and an approximately 30-mile underground water transmission line. The amount of treated water will increase to 25 mgd if a potential business agreement with the Bluegrass Water Supply Commission proceeds as planned.

The PSC regulates Kentucky American Water’s rates and service and must approve expansion projects. This will be the most significant water utility project built in Kentucky — in terms of size and cost — in 30 years. Cost of the project is estimated at $160 - $170 million.

Here are some of the most often asked questions about the project.

Where will the treatment plant and water line be located?
The proposed water treatment plant will be located near Monterey, in Owen County, and the water transmission line will run from the water treatment plant site through Franklin and Scott counties, then tie into Kentucky American Water’s existing distribution system in Fayette County.

The treatment plant will draw water from Pool three of the Kentucky River.

Why is this project important?
More than 20 years of substantial research by multiple organizations clearly indicates that a sufficient supply of water is not currently available to meet the needs of Kentucky American Water’s customers during a drought of record. In fact, the company is currently under mandate by the PSC to address the problem. PSC Order No. 93-434, dated August 21, 1997, states: “Kentucky-American shall take the necessary and appropriate measures to obtain sources of supply so that the quantity and quality of water delivered to its distribution system shall be sufficient to adequately, dependably, and safely supply the total reasonable requirements of its customers under maximum consumption through the year 2020.”

The new water treatment plant and underground water transmission line will address this need through 2030, which is Kentucky American Water’s current planning horizon, and can be connected with additional water sources if needed. This project is not being built for a future need. It is being constructed for an existing need.
What will happen if this project doesn’t occur?
Many Kentuckians depend on the Central Kentucky region for jobs, health care, education and other services. If a lack of sufficient water supply occurs, businesses and organizations may be required to curtail services, reduce operations, or even shut down temporarily — all of which could have long-term effects.

Is this a project to benefit Lexington/Fayette County only?
The water supply problem is a regional issue, not a “Lexington” issue. Kentucky American Water serves customers in portions of 10 counties, and this project will initially help meet the needs of customers in seven of those counties, including Fayette, Bourbon, Clark, Harrison, Jessamine, Scott and Woodford.

An agreement with the Bluegrass Water Supply Commission means several other communities also will depend on this water treatment plant and water line, including Berea, Cynthiana, Frankfort, Georgetown, Lancaster, Mount Sterling, Nicholasville, Paris and Winchester.

Why not add a pipeline from the Ohio River to the plant as well?
At this time, there is no need to construct a pipeline to the Ohio River, and it would not be appropriate to ask customers to pay for this additional cost. That will remain an option for us should the need arise for an additional water source.

When will construction begin?
Construction will begin as soon as the PSC approves the project. Kentucky American Water would like to begin construction in January of 2008, which would allow completion by early summer 2010, several months before the Alltech FEI World Equestrian Games.

Won’t the new water line impact private property or natural areas?
Kentucky American Water considered several potential routes for the 30-mile underground water transmission line, and then selected a route after reviewing a variety of factors including environmental and cultural concerns, feasibility of construction and operation, and cost. The company also solicited feedback from property owners in the area.

There will be some short-term disruption during construction. However, the impact to the area will be minimized as much as feasible by laying the line in existing roadways wherever possible and diverting the route around sensitive environmental and cultural areas. Kentucky American Water will work to quickly restore disrupted areas so there will be little evidence of the construction. The company has been communicating with property owners along the route since December, and will continue to remain in close contact with them to answer questions and address their concerns.

Kentucky American Water is sensitive to property owners’ concerns and is an environmentally friendly company.

Drought conditions were a serious concern in ‘98 and ‘99.
KENTUCKY AMERICAN WATER has served Central Kentucky since 1885. Our service area has grown as communities have asked us to provide residents and other water companies with tap water, wastewater treatment and related services. We take great pride in the quality and dependability of our water, our work ethic, and our role as a corporate citizen.

**Communities Served**  
10 counties: Fayette, Clark, Scott, Woodford, Jessamine, Bourbon, Harrison, Owen, Gallatin, Grant

**Customers Served**  
Central Division: approximately 116,000 water customers; approximately 700 wastewater customers  
Northern Division: 1,133 water customers; 622 wastewater customers

**Population Served**  
Approximately 326,000; 20,000 through bulk water sales

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**Bluegrass Water Supply Commission**

**MEMBERS**
Tom Calkins, Nicholasville  
Dave Pearce, Mt. Sterling  
Ed Burtner Winchester  
Bob Riddle, Georgetown  
Kevin Crump, Paris  
Donna Powell, Lancaster  
Jim Brown, Cynthiana  
Charlie Martin, Lexington-Fayette County  
David Billings, Frankfort  
Don Hassell, Blue Grass Area Development District

**EX-OFFICIO**
Bill Grier, Kentucky River Authority  
Jody Hughes, Kentucky Infrastructure Authority  
Bunk Sullivan, Frankfort (retired)

**AFFILIATE**
Linda Bridwell, Kentucky American Water

**LEGAL COUNSEL**
Damon Talley

**ENGINEERING ADVISORS**
George Rest, O’Brien & Gere  
Bryan Lovan, O’Brien & Gere  
Ken Roseman, CDP Engineers

**FINANCIAL ADVISORS**
Kevin Thompson, PFM Group  
Virginia Rutledge, PFM Group

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Answers to the Wonder of Water Quiz, page 4

1. b  2. a  3. d  4. c  5. a  6. c  7. c  8. a  9. b  10. c  11. a  12. c