

Joint Meeting, Tuesday, January 19, 2010, at 8:30 a.m. Government Center, Verona, VA.

PRESENT: AUGUSTA COUNTY BOARD OF SUPERVISORS

Gerald W. Garber, Chairman
Jeremy L. Shifflett, Vice-Chairman
Tracy C. Pyles, Jr.
David R. Beyeler
Nancy T. Sorrells
Wendell L. Coleman
Larry C. Howdyshell

PRESENT: AUGUSTA COUNTY SERVICE AUTHORITY

Larry Howdyshell, Chairman
Kay Frye

ABSENT: William Hrovat
Thomas Jennings
Troy Rutherford
Robert Eavers
Clifford Cempe

PRESENT: AUGUSTA COUNTY PLANNING COMMISSION

Kitra Shiflett, Chairman,
Wayne Hite, Vice-Chairman
Steve Bridge
Kyle Leonard
Eric Shipplett

ABSENT: Taylor Cole
James Curd

STAFF: Patrick J. Coffield, Augusta County Administrator
Patrick Morgan, Augusta County Attorney
Ken Fanfoni, Executive Director, Augusta County Service Authority
William Monroe, Director of Engineering, Augusta County Service Authority
Debbie White, Director of Finance, Augusta County Service Authority
Jennifer Hoover, Senior Engineer, Augusta County Service Authority
Pat Conroy, Water Supervisor, Augusta County Service Authority
Kim Cameron, Project Engineer, Augusta County Service Authority
Jamie Emery, Emery & Garrett Groundwater, Inc.
Sheri Heflin, Augusta County Service Authority Board Secretary
Becky Earhart, Senior Planner, Augusta County
Doug Wolfe, County Engineer, Augusta County
John Wilkinson, Zoning Administrator, Augusta County

VIRGINIA: At a joint meeting of the Augusta County Service Authority, Augusta County Planning Commission and the Augusta County Board of Supervisors, held on Tuesday, January 19, 2010, at 8:30 a.m., at the Government Center, Verona, Virginia, and in the 234th year of the Commonwealth....

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SOURCE WATER PROTECTION ORDINANCE

The meeting was called to order at 8:37 a.m. by Gerald Garber for the Augusta County Board of Supervisors, by Kitra Shifflett for the Augusta County Planning Commission and by Larry Howdyshell for the Augusta County Service Authority Board of Directors.

Mr. Ken Fanfoni presented a brief overview of how important the county's water supply is and the Service Authority is continually looking for new water sources to develop. The Service Authority has also been working on ways to protect its water sources. A

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source water protection ordinance has been in draft form for a number of years and there have been joint meetings to discuss this ordinance as it pertains to the critical areas in the county.

Mrs. Jennifer Hoover reported that there are 12 separate water systems in the county with a total daily usage of 4,677,000 gpd (gallons per day). The Service Authority purchases 1,115,000 gpd of that total from Staunton. 80 percent of the Service Authority's water supply is from groundwater.

The exploration program has identified over 60 specific zones in Augusta County with good potential for drinking water development for future use, but less than 30 have been field investigated. Since 1993, the Service Authority has spent nearly \$2 million on planning, exploration, test well development, well rehabilitation, and protection of drinking water supplies. The Service Authority estimates spending \$9 million for developing new sources in Churchville, South River, Mt. Sidney and Blue Hole over the next five years.

Membrane filtration has been needed at several plants with a cost of \$3.5 million for Augusta Springs, Deerfield, Middlebrook, Berry Farm and Churchville. Having an ordinance will hopefully protect and preserve the critical areas around wellheads so that the likelihood of future filters or further problems would be reduced.

Source water protection is needed to help reduce well contamination. Once a well has become contaminated with hydrocarbons, synthetic chemicals, heavy metals, or bacteria and viruses, there are several things that can be done to remove the contaminants. The contaminants can be contained to prevent their migration, they can be withdrawn from the aquifer, the aquifer can be rehabilitated by detoxifying the contaminants, the aquifer can be abandoned and/or the groundwater can be treated. Which option is chosen varies and depends on the conditions involved.

There are Federal and state laws that set the standards for drinking water and groundwater, but the implementation of protection programs falls to local government since it makes specific decisions about how land is used through land use control.

The purpose of the Source Water Protection Ordinance is to protect the aquifers by preventing contamination and/or water loss. The draft ordinance would only provide protection for publicly owned systems, not systems that are privately owned. The draft ordinance would also manage existing uses and plan to prevent future sources of contamination, would apply to a new use or expansion, and would apply to an existing structure that is changing its use. The draft ordinance would not apply to a business that exists at the time of ordinance adoption and would not be transferrable to the new owner of a business.

Sections of Augusta County's Comp Plan were discussed in relation to the Source Water Protection Ordinance. In the Existing Conditions Analysis (Section IX.C of the Comp Plan), it is noted that "Delineating more detailed source water zones is very important, especially in karst areas." \$650,000 has been budgeted for 2008-2012 to conduct the delineation studies in areas throughout the County to develop these detailed source water zones. To date, the Service Authority has received \$245,000 in grant money from the Department of Environmental Quality (DEQ) and the Virginia Department of Health (VDH) for 2008-2010.

The Zone 2 Recharge Area has been delineated at the Lyndhurst, Hurdis, Hershey and Ridgeview wells and is no longer a standard 1-mile radius as in the previous draft of the ordinance. Dices Spring is currently being delineated and will be completed in approximately 10 months.

The restrictions for Zone 1 and 2 were established by a working group comprised of the Service Authority, Augusta County, DEQ, VDH, Emery & Garrett, and several other consultants. There are 34 prohibited activities in Zone 1 and these are based on documented activities that pose a high risk of contaminating a supply if an accidental spill or release occurs. Existing non-conforming uses would have to develop an

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operation plan. Agricultural uses, lot size and on-site sewage systems in the draft ordinance were discussed. Prohibited activities from Zone 1 are allowed in Zone 2, but if they involve hazardous materials (transport, store, utilize, etc.) they must have secondary containment or use public sewer.

Currently, there are 516 parcels in Zone 1 which account for 1.3 percent of all parcels in Augusta County, and 3,548 parcels in Zone 2 which account for 8.8 percent of all parcels in Augusta County. In past ordinance discussions, Zone 2 was a one-mile radii around each source. That one-mile radii is no longer being proposed but now the only Zone 2 areas will be those areas outside of Zone 1 which have actually been delineated by hydrogeological studies.

Beauty shops, taxidermies and car washes have been removed from the Zone 1 prohibited use list. Groundwater withdrawal limitations and future groundwater sources are not included in the proposed ordinance. The draft ordinance does not include surface water.

Mr. Jamie Emery, President of Emery & Garrett Groundwater, Inc., presented additional information concerning the groundwater exploration studies that have been completed in Augusta County.

Protecting groundwater resources is important for maintaining the quantity and quality of existing groundwater supplies. The karst environment of Augusta County is vulnerable to contamination.

Mr. Emery stated Augusta County has few land use regulations or restrictions that protect the groundwater resources which the County depends on for its potable water supply. Land changes can impair and contaminate groundwater. Spills and leaks of chemicals can go unnoticed until public water sources are affected. It is necessary to restrict land use and use Best Management Practices to reasonably prevent possible leaks and spills.

Mr. Emery discussed the five phases of groundwater exploration: hydrogeological evaluation, geophysical surveys (selection of monitoring well locations), monitoring well installation, groundwater testing (determination of groundwater protection areas), and developing a groundwater use management and protection plan.

In 2003, groundwater sources were prioritized with Ridgeview, Lyndhurst, Hurdis and Hershey wells at the highest priority. Dices Spring is currently being studied. The remaining groundwater sources are Berry Farm Spring, Churchville (all wells), Middlebrook, Harriston, Vesper View/Crimora wells, Augusta Springs and Deerfield.

After questions and further discussion, the meeting was adjourned at 10:21 a.m. to visit Zones 1 and 2 of the Lyndhurst Delineation Area and the Hurdis, Hershey and Ridgeview Delineation Areas.

Chairman, Board of Supervisors

County Administrator