

**SOURCE WATER PROTECTION ORDINANCE
WORKSESSION MINUTES
November 30, 2006
3:00 p.m.**

PLANNING COMMISSION:

PRESENT: Kitra A. Shiflett
Joseph Shomo
Becky Earhart, Senior Planner

ABSENT: Wayne F. Hite, Chairman
James W. Curd, Vice-Chairman
Stephen N. Bridge
Thomas H. Byerly
Justine D. Tilghman

BOARD OF SUPERVISORS:

PRESENT: Wendell L. Coleman, Chairman
Nancy Taylor Sorrells, Vice-Chairman
David R. Beyeler
Kay D. Frye
Larry C. Howdyshell
Tracy C. Pyles, Jr.
Steven L. Rosenberg, County Attorney

Doug Wolfe, County Engineer
Patrick J. Coffield, County Administrator

ABSENT: F. James Bailey, Jr.

AUGUSTA COUNTY SERVICE AUTHORITY

PRESENT: Tracy C. Pyles, Jr., Chairman
Kay D. Frye, Vice Chairman
Robert L. Evers
Clifford F. Cempe
Larry C. Howdyshell
E. Thomas Jennings, Jr.

Kenneth J. Fanfoni
Julia Bortle
Jennifer Hoover
William Monroe
Terri Brown, Terrane Environmental
Jamie Emery, Emery & Garrett Groundwater, Inc.

ABSENT: Troy Rutherford

INTRODUCTION

Mr. Pyles opened the workshop, addressing the different Boards' responsibility for the safe drinking water supply for residents of Augusta County, the need to plan for its future, and the need for a source water protection ordinance. Mr. Pyles then introduced Ken Fanfoni, Service Authority Executive Director.

Mr. Fanfoni discussed the time and money spent in looking for water, testing sources, developing and treating the source, and for its operation. Since 1993, more than \$1.6 million has been spent in studies and field investigations to find new water supplies. Each new source put into service costs approximately \$600,000-\$800,000 to develop. Other related costs to be considered include the rehabilitation of an impaired source, which could range from \$200,000 - \$2 million per source. Over the next five years more than \$1.5 million will be spent in exploration work to develop new water sources.

Mr. Fanfoni explained the methods of treating bacteriological and chemical contamination and its impact on developing water sources.

In 2003 Emery & Garrett Groundwater, Inc. (Meredith, NH) made a presentation to the Service Authority Board of Directors and the Augusta County Board of Supervisors on the source water protection issue. The focus of that meeting was to discuss developing a Source Water Protection Overlay Ordinance, involving a multi-year plan to conduct field studies to evaluate which areas need to be protected. In January 2004 the Board of Supervisors authorized Community Development staff and the County Attorney to work with the Service Authority staff in developing a draft ordinance for source water protection. Other agencies working on this project include the Health Department, Soil Water Conservation District, Cities of Staunton and Waynesboro, Virginia Department of Environmental Quality, State Department of Health, Central Shenandoah Planning District and Emery & Garrett Groundwater Inc.

EMERY & GARRETT PRESENTATION:

Mr. Fanfoni introduced Jamie Emery from Emery & Garrett Groundwater Inc. (EGGI) and Terri Brown from Terrane Environmental who is working with EGGI on the draft ordinance with the County. Mr. Emery presented the issues the County faces and considerations in spending the time and money to protect the quantity and quality of the groundwater sources.

Source water protection is part of the Service Authority's long-term capital plan and is in the County's Comprehensive Plan. Augusta County currently has few land use regulations/restrictions that serve to protect the groundwater resources that the County depends upon for potable water supply. The purpose of this Ordinance is to implement the necessary regulation and or acquisition of critical groundwater recharge areas to ensure an adequate long-term supply for County citizens. The current land use and water supply sources existing within Augusta County were reviewed, including discussing the growth that has occurred around existing wells from 1993 to present.

The County will undertake a comprehensive study of groundwater supplies and recharge areas to determine the capacity and quality of supply and which specific areas should be the highest priority for long-term protection. Upon completion of the groundwater study, the County will implement the necessary regulation and/or acquisition of critical groundwater recharge areas necessary to ensure adequate long-term supply for County citizens.

EMERY & GARRETT PRESENTATION (cont'd)

Groundwater protection areas are determined using the default areas as defined by the Virginia Department of Health (Zone 1 – 1,000 foot radius around each production well; Zone 2 – 1 mile radius), or by detailed hydrogeologic investigations of each production well to determine what that boundary is. Those investigations include hydrogeologic evaluations, geophysical surveys, installation of monitoring wells, groundwater testing to determine the zone of contribution, and defining the groundwater protection area.

A priority ranking was done to define which wells were the best candidates for the groundwater protection strategies. These include the Stuarts Draft wells field, Lyndhurst well, Berry Farm Spring, Dices Spring, Churchville wells, Middlebrook well, Harriston wells, Vesper View well, Crimora Mines well, Augusta Springs well and Deerfield well.

This Source Water Protection Overlay Ordinance serves to provide the County with the tools that will be helpful and necessary to protect the drinking water supplies. This will require the cooperation of the County, the Service Authority, and local constituents.

ORDINANCE OVERVIEW:

A copy of the draft ordinance was distributed to all attendees.

Background:

The Board of Supervisors authorized the County Attorney and Community Development staff to work with the Service Authority on drafting the Ordinance in January 2004. A working group was formed to work on the ordinance. Ordinances from other localities were used as reference.

Mr. Rosenberg discussed the legal basis for the regulations. Virginia Code § 15.2-2283 addresses the issue, stating a zoning ordinance may include “reasonable provisions not inconsistent with applicable state water quality standards, to protect surface water and ground water.”

Framework:

This ordinance establishes source water protection overlay districts, namely:

- Zone 1 - within 1,000 feet of source (1,187 acres, 670 parcels)
- Zone 2 - within 1 mile of the source (23,827 acres, 3,648 parcels)
- Zone 3 - potential future sources

These zones are intended to cover groundwater recharge to the public groundwater supply sources. At this time it is not anticipated that the ordinance would address private groundwater supply sources or public sources other than those owned by the Service Authority. It is possible that some time after the adoption of the ordinance and the adoption of the maps that establish the zones based on the Service Authority facilities, there may be requests from either the Cities of Waynesboro and Staunton or the Town of Craigsville to include recharge areas for their public groundwater supply sources in the areas protected under the ordinance. These areas are based on the designation by the Virginia Department of Health. Adjustments to those areas are possible under the ordinance. There is also a mechanism for a private party to come forward with a study to establish the same sort of factors or criteria that would warrant a reduction in the area that would then be the subject of protection under the ordinance.

Regulations Per Zone:

When amending the Zoning Ordinance, uses that are presently in effect are not affected or impacted by the amendment. If there is an existing use or structure that is in one of the zones, that use or structure becomes “lawfully nonconforming”, meaning it can continue provided it has not been discontinued for a period of two years. This is ORDINANCE OVERVIEW (cont’d) sometimes referred to as “grandfathering”. The ordinance is prospective in its application; as long as no changes are made to what is presently being done in Zone 1 or Zone 2, this new part of the Zoning Ordinance will not affect an existing use or structure.

Regulations in Zone 1:

The uses referred to at page 4, line 24 of the Ordinance, “Prohibited and Limited Uses” were identified by the working group to identify those land uses posing the greatest threat of contamination to groundwater supply sources. These uses are prohibited in Zone 1. In addition, in Zone 1, the ordinance precludes any new structures or on-site sewage disposal systems within 250’ of groundwater supply sources, and establishes minimum lot sizes where on-site sewage disposal systems will be used elsewhere within Zone 1. Mr. Emery explained the background behind establishing the minimum lot sizes imposed under the ordinance.

Regulations in Zones 2 and 3:

In Zones 2 and 3, the uses referred to at page 4, line 24 of the ordinance, "Prohibited and Limited Uses," are subject to certain limitations, if hazardous materials are used. In that event, two conditions must be satisfied. First, there must be a secondary containment system in place. Second, the facility must be served by public sewer.

Regulations in Zones 1, 2 and 3:

Regulations that are applicable to all three zones were reviewed, including a prohibition on all Class V injection wells (typically shallow disposal systems that are used to place a variety of fluids below the land surface), a pump-out requirement for conventional on-site sewage systems (required to be done every five years and evidence of the pump out must be delivered to the Service Authority and the Virginia Department of Health at any time that the property is conveyed), and well abandonment requirements.

Notice Requirements in Ordinance:

The Virginia Department of Health must notify the Service Authority of new on-site sewage system construction permits and well construction permits and abandonment activities and including inspection reports, and the County Engineer must notify the Service Authority of new stormwater drainage facilities, roads and utility installations.

Items To Consider:

Jennifer Hoover, Service Authority Project Engineer, presented items to consider regarding the Ordinance.

Because the language and the maps in the ordinance pertain to Service Authority water supplies, Staunton, Waynesboro and Craigsville (because all or a portion of their recharge areas for their groundwater sources are located within the County) may request their zones be incorporated into the ordinance. Staunton, Waynesboro and Craigsville could be part of the initial application. Since residents of the three jurisdictions are served by the same water supply, only one public hearing would be required instead of individual hearings.

The ordinance as is currently written is for groundwater only and does not currently include protecting surface water recharge areas. The Service Authority has one surface water intake at Coles Run. This ordinance could also address the City of Staunton's intake on the Middle River and the North River. Zone 2 for surface water is a five-mile radius, while for groundwater it is a one-mile radius.

There was a brief discussion concerning Zone 3. Zone 3 is a source water protection

Items To Consider (cont'd)

overlay district that includes areas in the vicinity of potential groundwater supply sources. The wells may have to be developed to meet future water supply demands. Currently there are no Zone 3 areas mapped and to be regulated as part of in the Ordinance. These study areas include Verona to Weyers Cave, Waynesboro North, Blue Hole to Fishersville, and Greenville. The areas around the County that have been identified as potential Zone 3 areas require research, planning and drilling to investigate the potential of becoming a Zone 3 designated area.

The draft ordinance currently prohibits a new septic system within 250 feet of a water supply. However, there has been discussion, for scientific reasons, of extending the limit to 1,000 feet for Zone 1, and raising the new septic system overburden limit from 3 feet to 5 feet.

Some issues and concerns that may need further discussion include: Zone 2 customers connecting to public sewer if necessary; the institution of a blasting permit requirement in Augusta County; the requirement of a Karst survey prior to issuing a building permit; reporting sinkholes; restricting groundwater withdrawal; and additional land purchases in sensitive areas.

Once the ordinance is adopted and it proceeds to the implementation stage, Building Inspection, Community Development and the Health Department would work to develop the methodology and discuss issues that are being encountered.

Mr. Emery suggested an important discussion point includes groundwater withdrawal language in the ordinance. This would require a hydrologic study be performed before a new source is developed within the Zone that could impact the quantity and quality of an established source.

Because of the diversity of interests within the combined groups, Mr. Fanfoni suggested Jennifer Hoover, Steve Rosenberg, Becky Earhart and he, meet with each of the groups individually to discuss and exchange opinions on the items of concern to their group.

A question and answer session followed Mrs. Hoover's review. A deadline to return additional comments and suggestions after reviewing the draft was set for January 31, 2007.

Chairman

Secretary