

Water Briefing to the Board of Supervisors

6 October 2010

Items to Discuss

- Possible Alternatives
- Possible Costs
- Possible Implementation
- Discussion and Direction by the Board of Supervisors

Possible Alternatives

- **Partner with AquaVirginia to Supply water to Zion Crossroads and FUSD**
- **Partner with AquaVirginia to Supply water to Zion Crossroads with FUSD searching for new wells**
- **Partner with AquaVirginia to Supply water to Zion Crossroads with FUSD using the James River**

Possible Alternatives (con't)

- **Partner with AquaVirginia to Supply water to Zion Crossroads with FUSD sold to AquaVirginia**
- **Free Enterprise Alternative**

Partner with AquaVirginia to Supply water to Zion Crossroads and FUSD

- Supplies water to Zion Crossroads from the Aqua Virginia water plant at Lake Monticello
- The Fork Union Sanitary District (FUSD) would be supplied from AquaVirginia through a pipeline that connects the plant to FUSD along Routes 53 & 15
- The source of water for Fluvanna County would be the Rivanna River with the possible future connection to the James River

Fluvanna County



Waterline Options

Option 11: Aqua Virginia Proposal

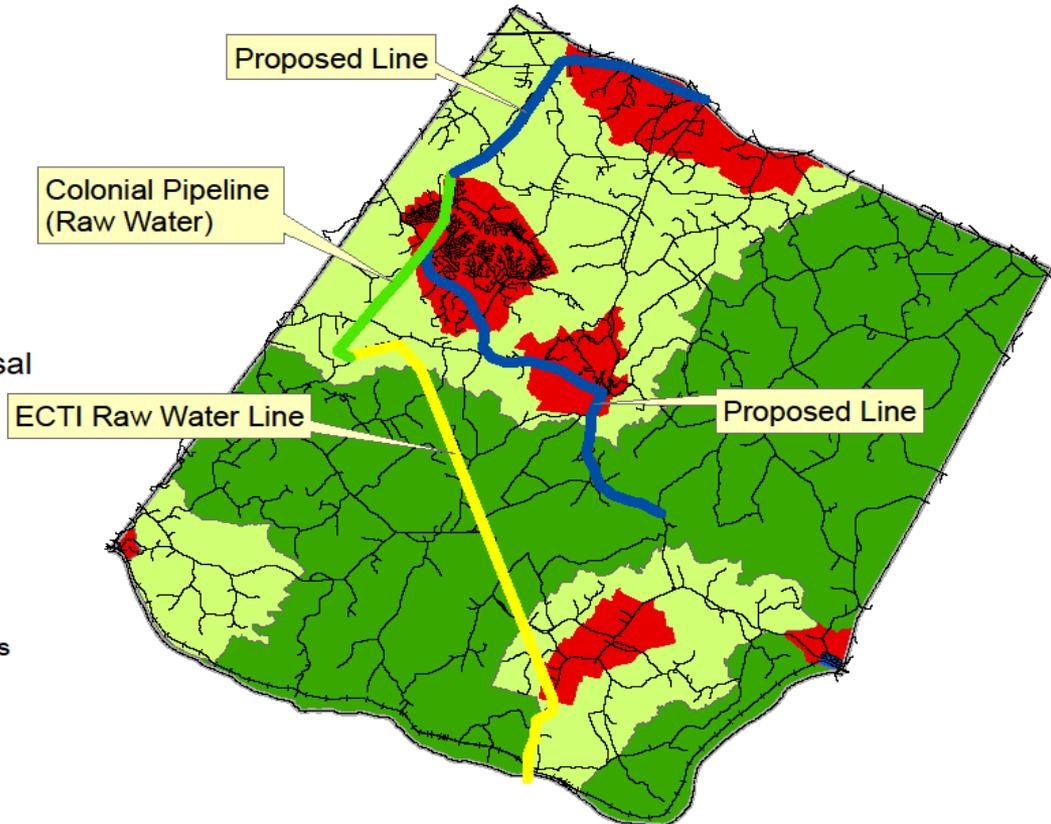
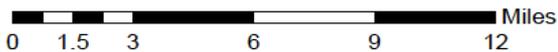
Date: 4/29/10



Legend

2009 Planning Areas

-  Community Planning Areas
-  Rural Preservation
-  Rural Residential
-  Town Boundaries



Partner with AquaVirginia to Supply Water to Zion Crossroads with FUSD searching for new wells

- Supplies water to Zion Crossroads from the Aqua Virginia water plant at Lake Monticello
- The Fork Union Sanitary District (FUSD) would search for new wells and construct the necessary treatment plant to support the new wells
- The source of water for Fluvanna County would be the Rivanna River and Groundwater

Fluvanna County



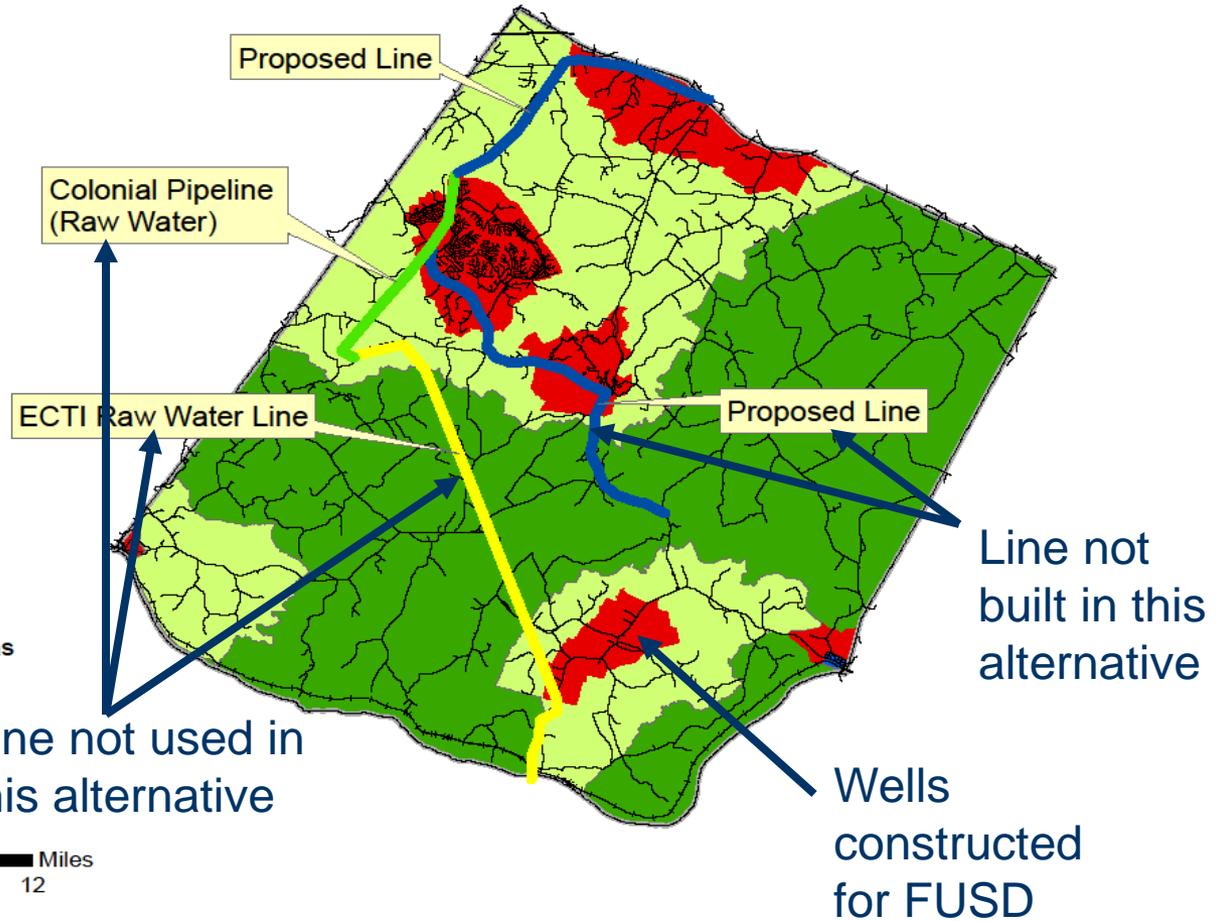
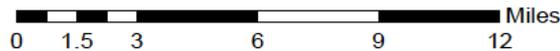
Waterline Options

Aqua to Zion with wells in FUSD

Legend

2009 Planning Areas

- Community Planning Areas (Red)
- Rural Preservation (Dark Green)
- Rural Residential (Light Green)
- Town Boundaries (Blue)



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Partner with AquaVirginia to Supply water to Zion Crossroads with FUSD using the James River

- Supplies water to Zion Crossroads from the Aqua Virginia water plant at Lake Monticello
- The Fork Union Sanitary District (FUSD) would use water from the James River and construct the necessary treatment plant
- The source of water for Fluvanna County would be the Rivanna River and the James River

Fluvanna County



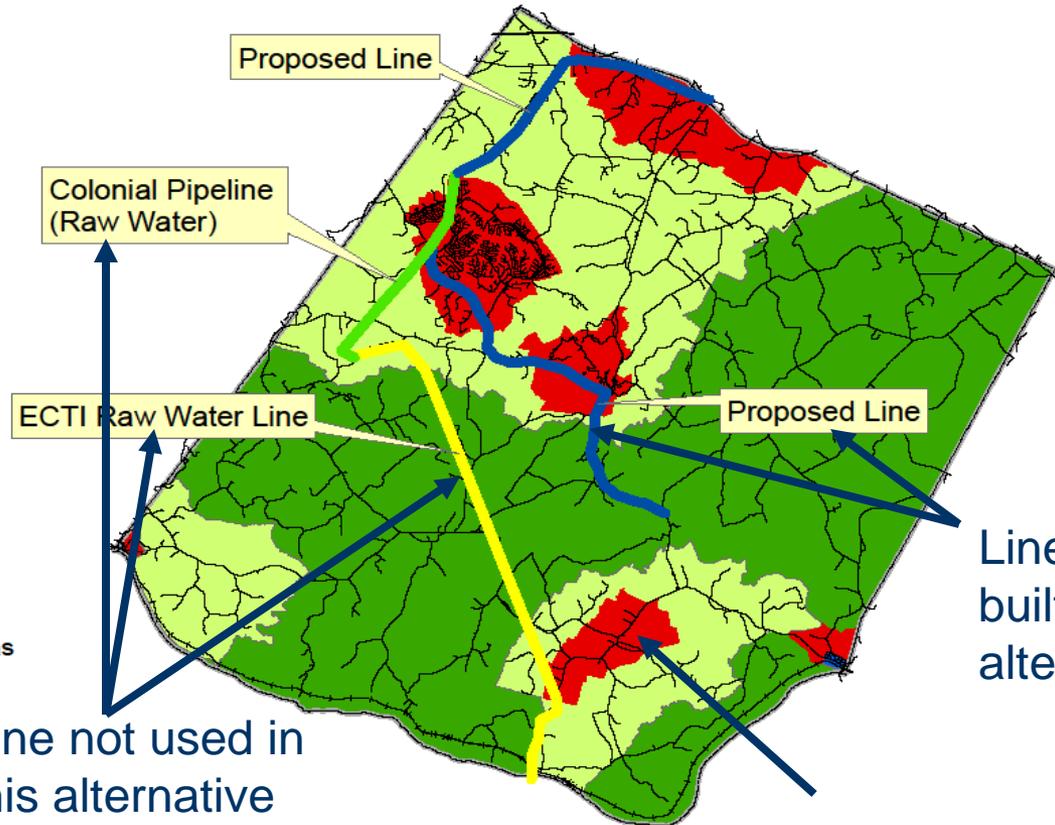
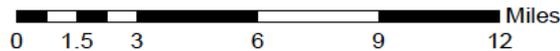
Waterline Options

Aqua to Zion with James Plant in FUSD

Legend

2009 Planning Areas

- Community Planning Areas (Red)
- Rural Preservation (Dark Green)
- Rural Residential (Light Green)
- Town Boundaries (Blue)



Line not used in this alternative

Line not built in this alternative

A James River Treatment Plant will be Built to Supply FUSD

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AquaVirginia – Selling FUSD

- Supplies water to Zion Crossroads from the Aqua Virginia water plant at Lake Monticello.
- The source of water for Fluvanna County would be the Rivanna River
- The Fork Union Sanitary District (FUSD) would be sold to Aqua Virginia

Fluvanna County



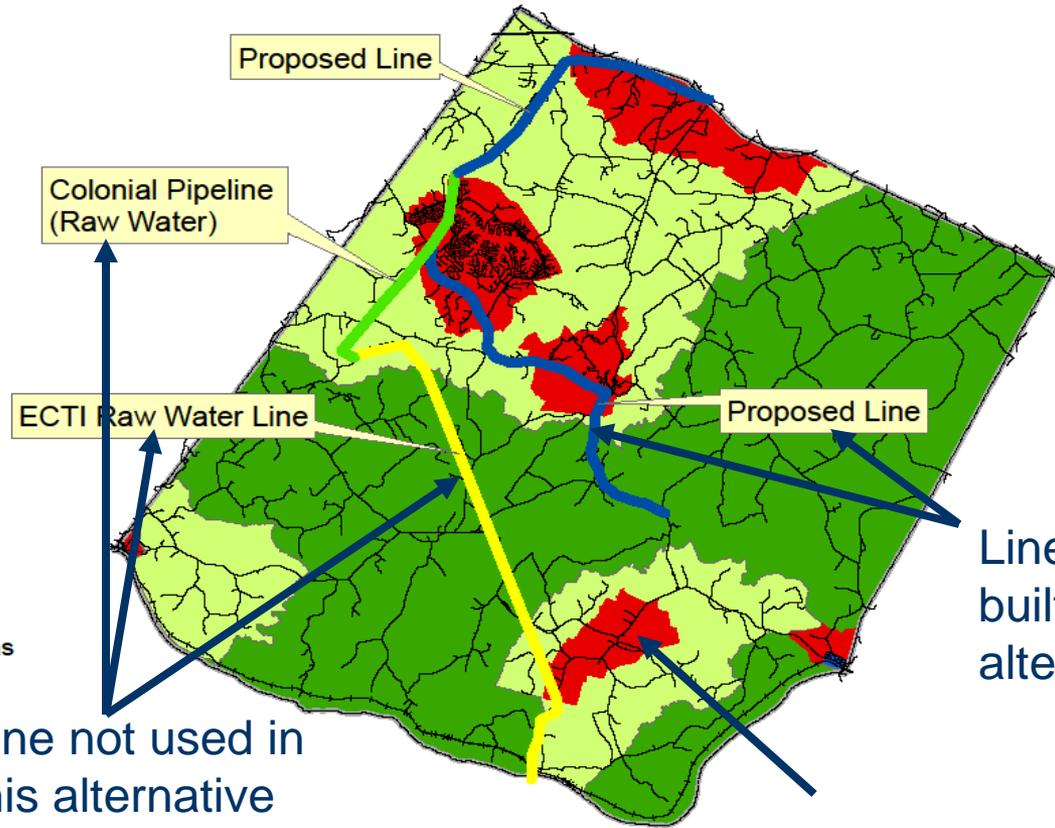
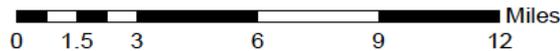
Waterline Options

Aqua to Zion with
FUSD sold to Aqua

Legend

2009 Planning Areas

- Community Planning Areas (Red)
- Rural Preservation (Dark Green)
- Rural Residential (Light Green)
- Town Boundaries (Blue)



Line not used in this alternative

Line not built in this alternative

FUSD is sold to AquaVirginia

Free Enterprise

- This alternative supplies raw (untreated) water to FUSD, the Prison and any other developer who wants to connect
- The users would need to permit, purchase and operate a treatment plant for their development.
- The prison has a surface water treatment system and will continue their current operations.

Fluvanna County



Waterline Options

Option 8: "Free Enterprise" Plan

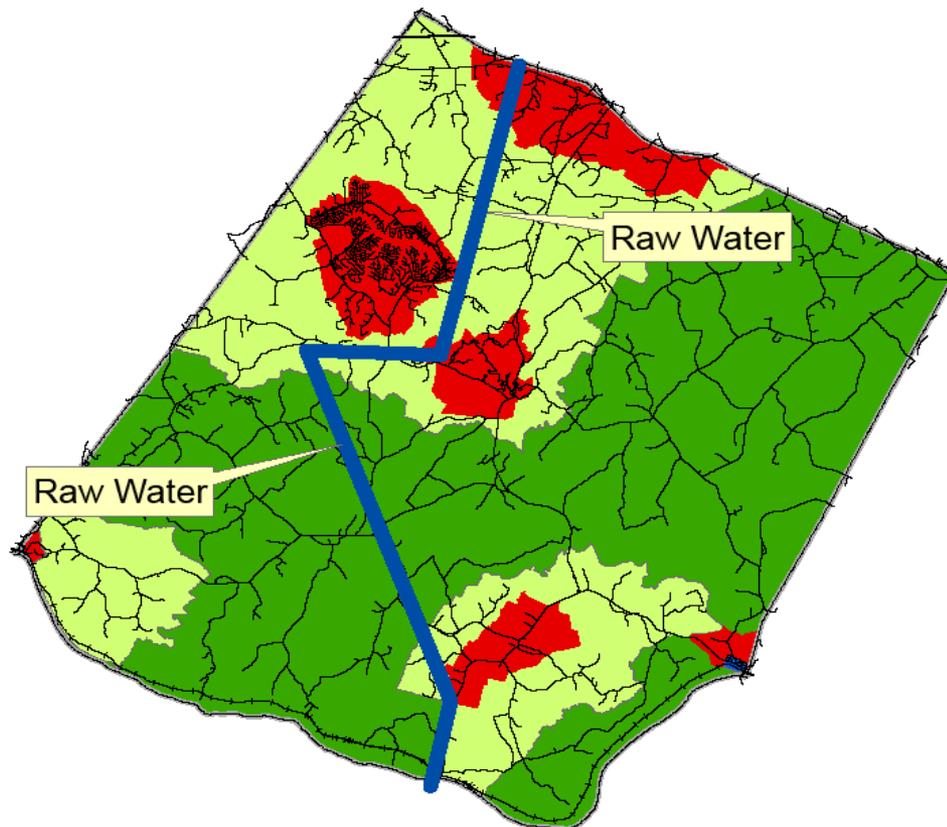
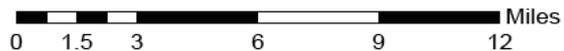
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Legend

2009 Planning Areas

-  Community Planning Areas
-  Rural Preservation
-  Rural Residential
-  Town Boundaries



Financial Model Results

Alternative	Estimated Construction Cost	Max Tax Rate	Tax Years	Net Cash Flow	Avg Tax/Mo
James/Rt 600 to Zion Xroads (Reference Only)					
Split w/Louisa based on Usage	\$ 56,805,000	\$ 0.035	13	\$ 28,837,704	\$ 3.91
AquaVirginia					
Zion Crossroads only	\$ 7,645,000	\$ 0.015	10	\$ 21,288,005	\$ 1.05
Zion Crossroads and FUSD	\$ 16,500,000	\$ 0.017	15	\$ 20,481,655	\$ 1.75
FUSD (paying for costs within FUSD)					
New Wells	\$ 900,000	\$ 0.067	30	\$ -	\$ 13.96
James River System	\$ 8,000,000	\$ 0.590	30	\$ -	\$ 122.92
FUSD (paying for costs County-wide)					
New Wells	\$ 900,000	\$ 0.002	30	\$ -	\$ 0.31
James River System	\$ 8,000,000	\$ 0.014	30	\$ -	\$ 2.83
Free Enterprise	\$ 11,752,330	\$ 0.016	29	\$ 2,294,988	\$ 2.49

Note: Average Tax /Month Based on a \$250,000 property value

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Possible Implementation

- Develop a Preliminary Engineering Report (PER) for use in obtaining financing and regulatory approvals. This will require hiring an engineering firm.
- Discuss with Regulators to determine any red flags
- Obtain a financing strategy from the County's financial advisors
- Review alternatives again with Board of Supervisors and select one to pursue
- Finance
- Design
- Build

Board Direction

How would the Board of Supervisors like to proceed?