

Citizens' Water Committee Update

Town Hall Meeting
Fork Union Community
Center
June 21, 2010

Items to Update

- Purpose of Citizens' Water Committee
- Committee Members
- Process
- Communications Plan
- Objectives

Purpose of the Citizens' Water Committee

- Better Communications
- Review the decision process
- Develop a recommendation of a course of action to the Board of Supervisors

Committee Members

- Joe Chesser – Board of Supervisors
- Elizabeth Fortune – Planning Commission
- Alan Batson – FUSD Advisory Board
- Robert Flood – Chamber of Commerce
- Elizabeth Franklin – FTA
- Dennis Holder – FFRP
- Scott Marshall – EDA
- George Fitz-Hugh – EDC
- Richard Schwartz – LMOA
- Shelly Wright – Interim County Administrator
- John Robins – Public Works
- Darren Coffey – Planning
- Vicki Karabinus – Economic Development

Process

Step 1 – Identify and define the Objectives that each alternative should meet

Step 2 - Develop Alternative Approaches that supply water and address these objectives

Step 3 - Evaluation of Alternatives using objectives and recommendation of best alternative

Communications Plan

- Communications through the Internet
- Communications through the press
- Communications through existing public meetings
- Communications through the organizations represented on the committee

Objectives

1. Ensure availability of water to Community Development Areas in the County as Identified in the Comprehensive Plan for the long term, including:
 - a. Fork Union
 - b. Zion Crossroads
 - c. Palmyra
 - d. Rivanna
 - e. Columbia
 - f. Scottsville

Objectives (con't)

2. Ensure availability of water to the primary county facilities, including:
 - a. Central Elementary
 - b. Existing High School
 - c. New High School
 - d. Government complex at Pleasant Grove
 - e. Government complex at Palmyra Village

Objectives (con't)

3. Show that the alternative is financially viable through a cost/benefit analysis (CBA)

A CBA can take many forms and will need to be defined before we start to use it. It typically consists of identifying all the benefits and expressing them in a common unit such as money. This is also done for the costs. The benefit is compared to the cost to determine if the project is viable. Then the alternatives are compared to determine which is the better solution.

Objectives (con't)

4. Protect the Rural Preservation Area

It is assumed that the rural preservation areas are to be protected from development. It is also assumed that the clean water pipeline is a possible accelerator to development.

Objectives (con't)

5. Lowest Possible Current and deferred Tax Impact

This is proposed to be measured using the annual and long term tax impact for a given alternative.

Objectives (con't)

6. Support Economic Development as Outlined in the Fluvanna County Comprehensive Plan

Objectives (con't)

7. Protect Groundwater Resources through use of surface water to provide for the needs of new development. (Existing development will be able to connect on to the system if they desire)

Summary of Alternatives

There were Thirteen (13) alternatives that were generally agreed upon by the committee to consider through the evaluation process.

Fluvanna County



Waterline Options





Option 1: Aqua VA Serves High School, Palmyra, and FUSD

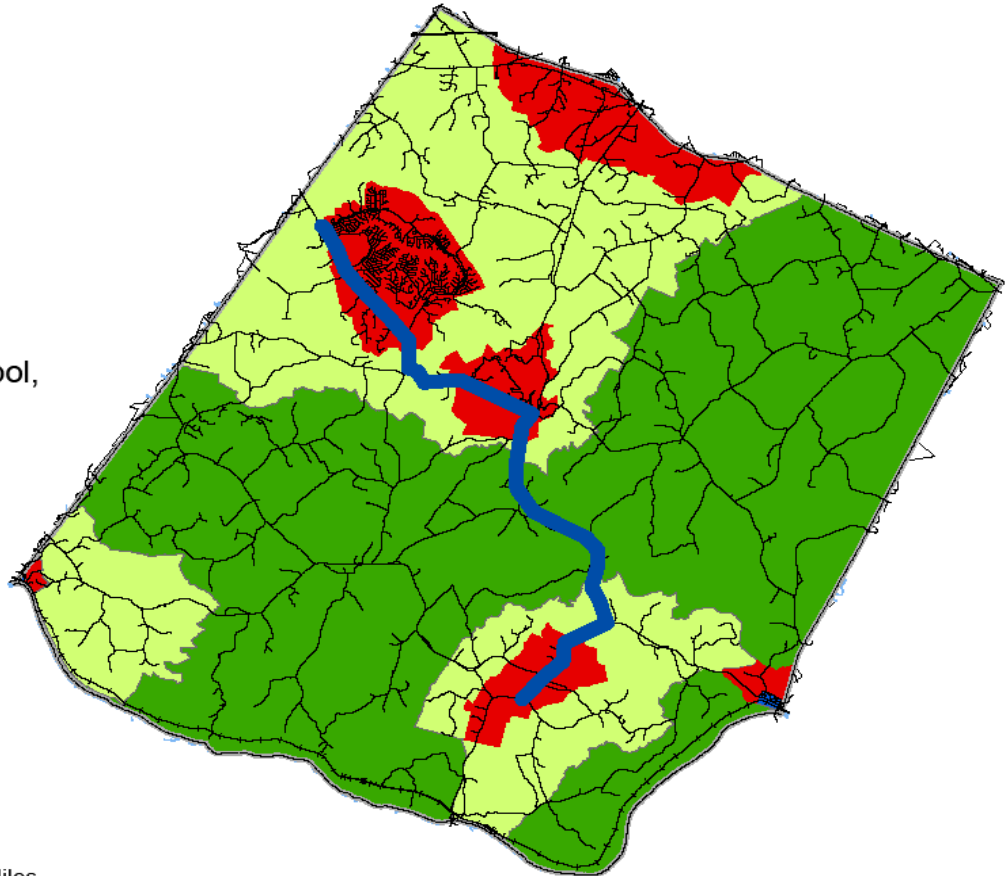
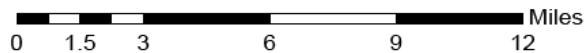
Date: 4/29/10



Legend

2009 Planning Areas

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



Fluvanna County



Waterline Options





Option 2: Aqua VA Serves
High School & Palmyra

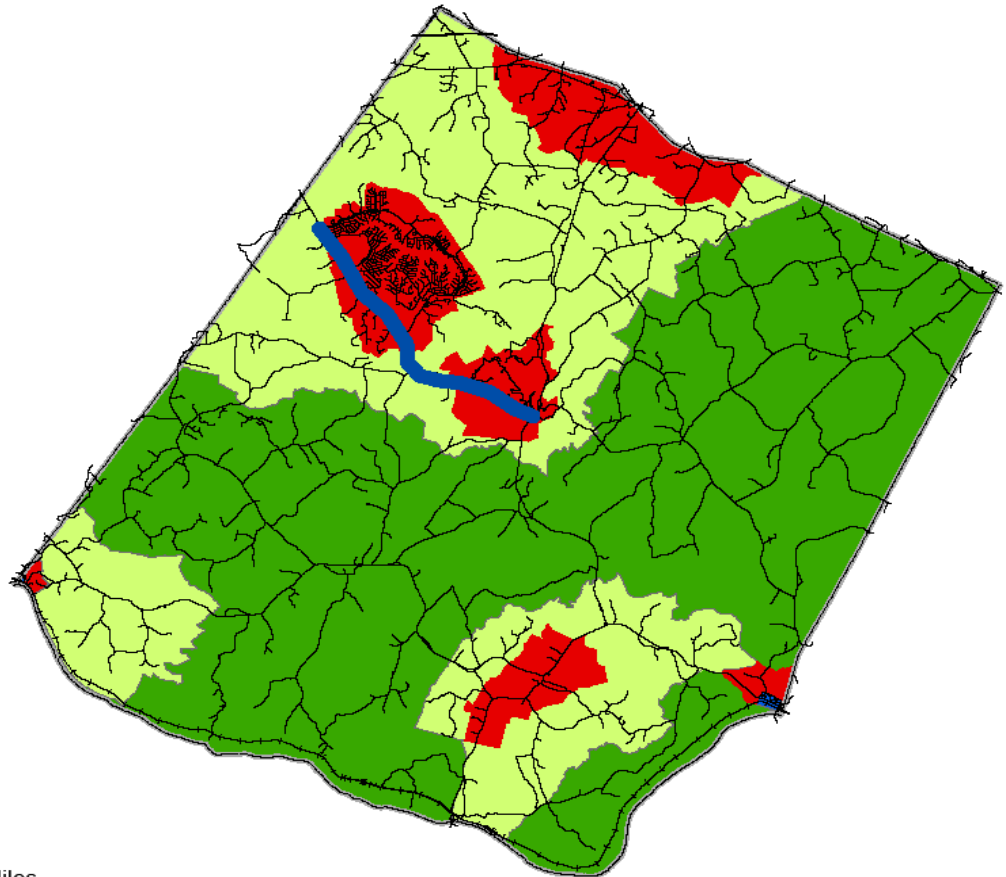
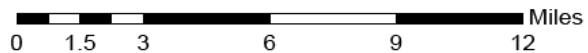
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Legend

2009 Planning Areas

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Fluvanna County



Waterline Options





Option 3: FUSD to High School

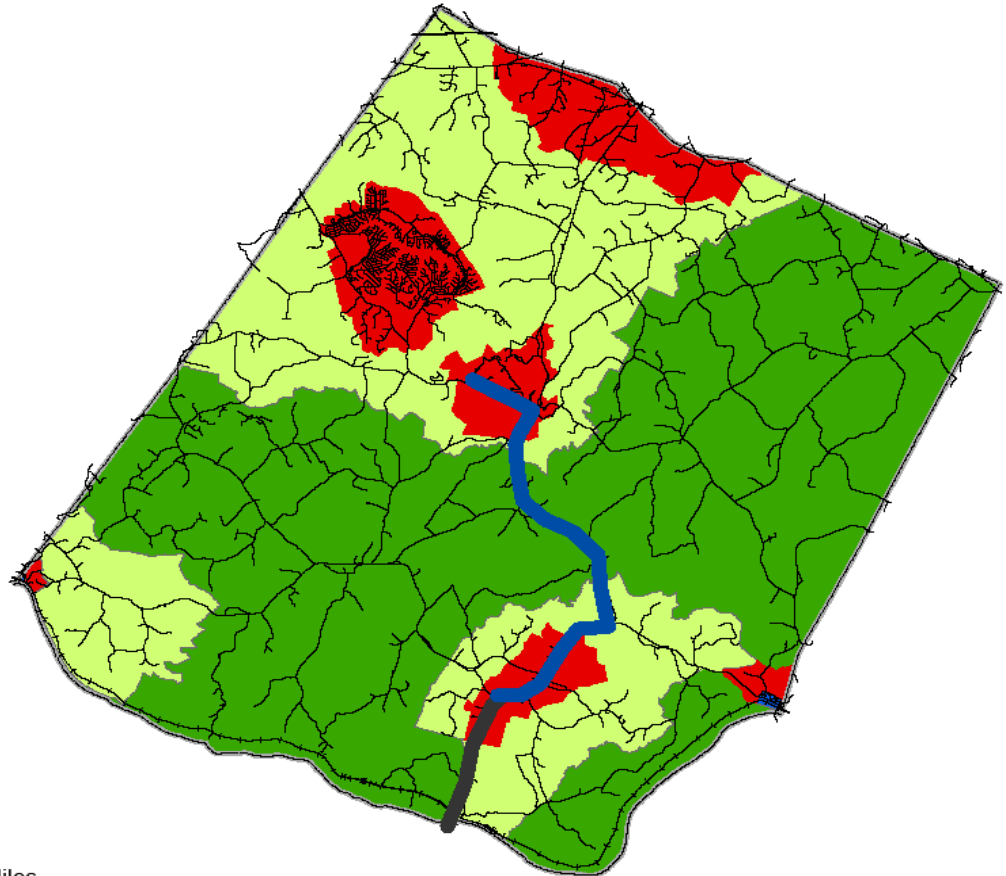
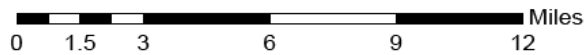
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Legend

2009 Planning Areas

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Fluvanna County



Waterline Options





Option 4: Fork Union First

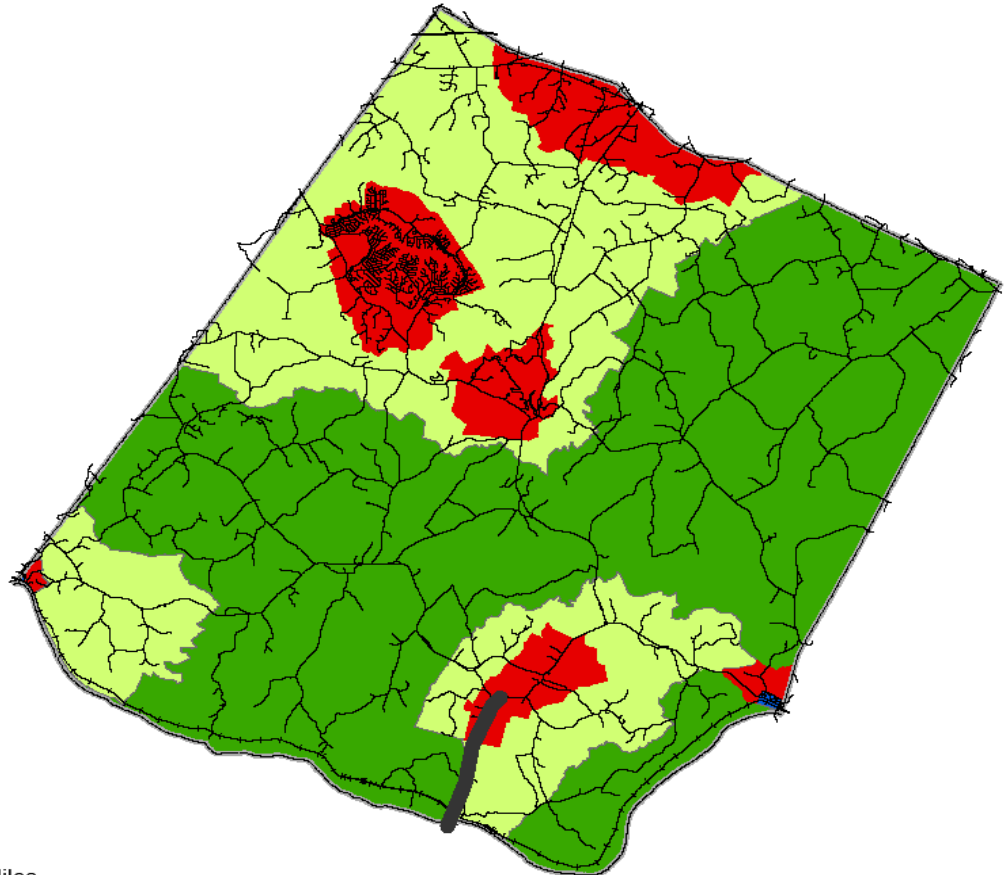
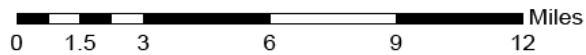
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Legend

2009 Planning Areas

-  Community Planning Areas
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-  Town Boundaries



Fluvanna County



Waterline Options





Option 5: The County is Broke

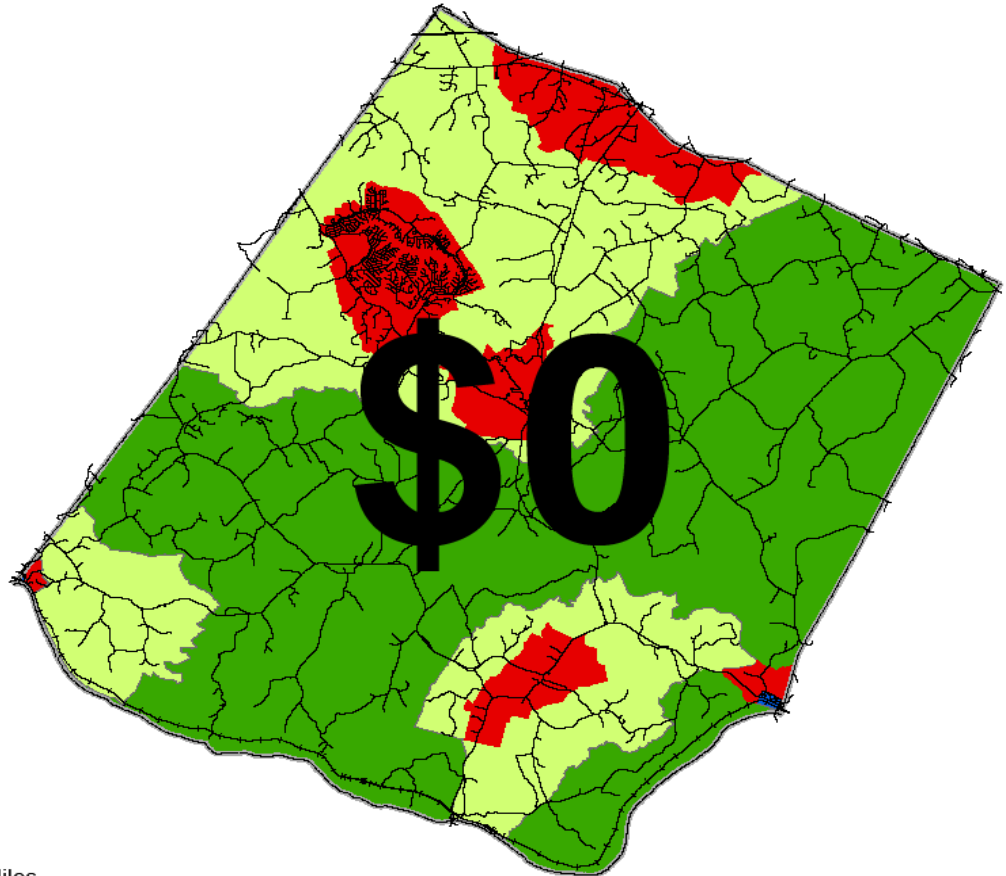
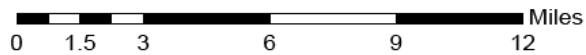
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Legend

2009 Planning Areas

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



Fluvanna County



Waterline Options





Option 6: "Let Louisa Do It" Plan

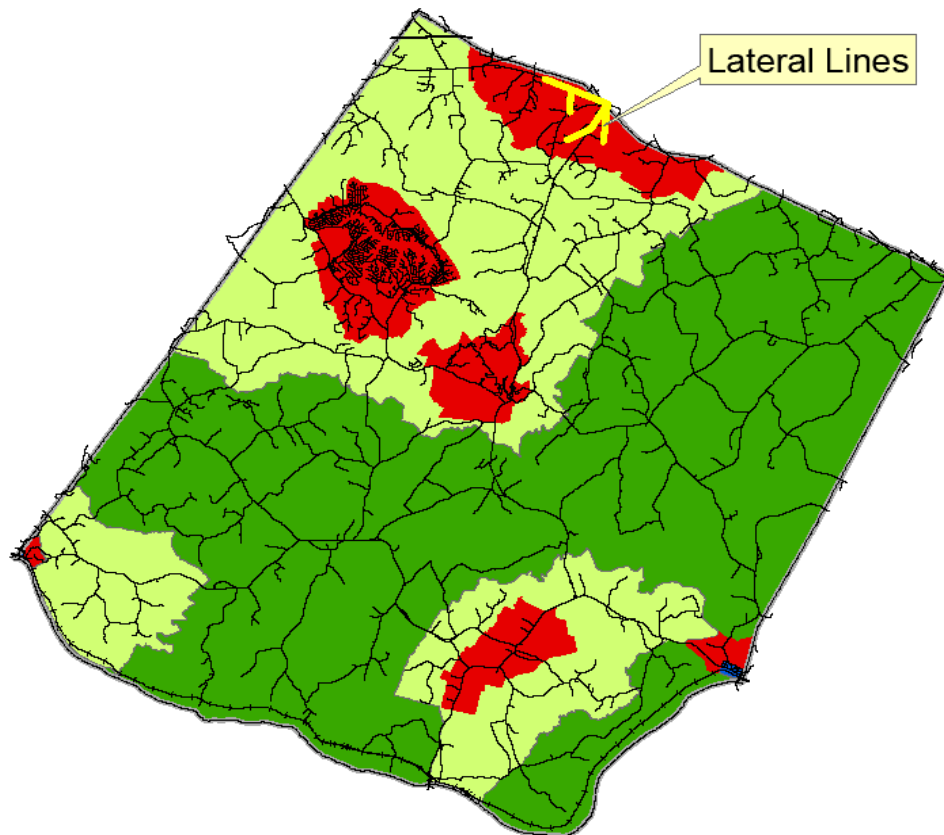
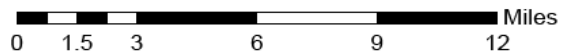
Date: 4/29/10



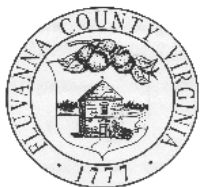
Legend

2009 Planning Areas

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



Fluvanna County



Waterline Options





Option 7: "Modified Let Louisa Do It" Plan

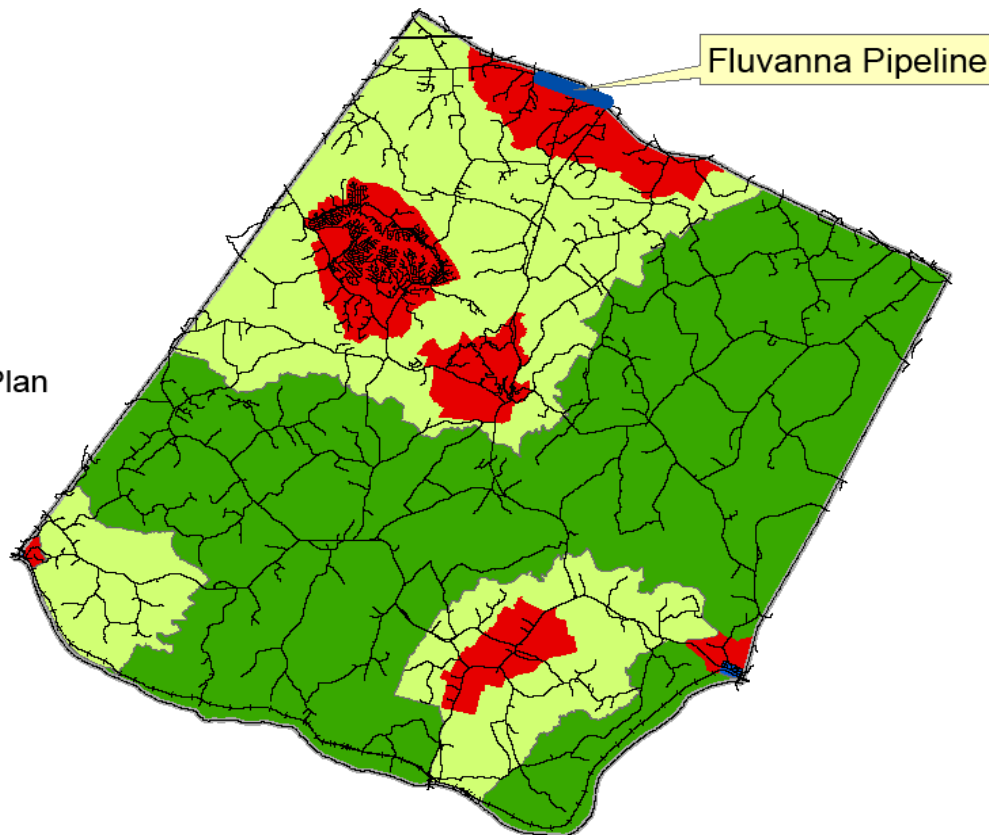
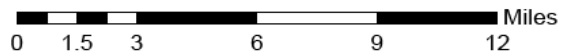
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Legend

2009 Planning Areas

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



Fluvanna County



Waterline Options





Option 8: "Free Enterprise" Plan

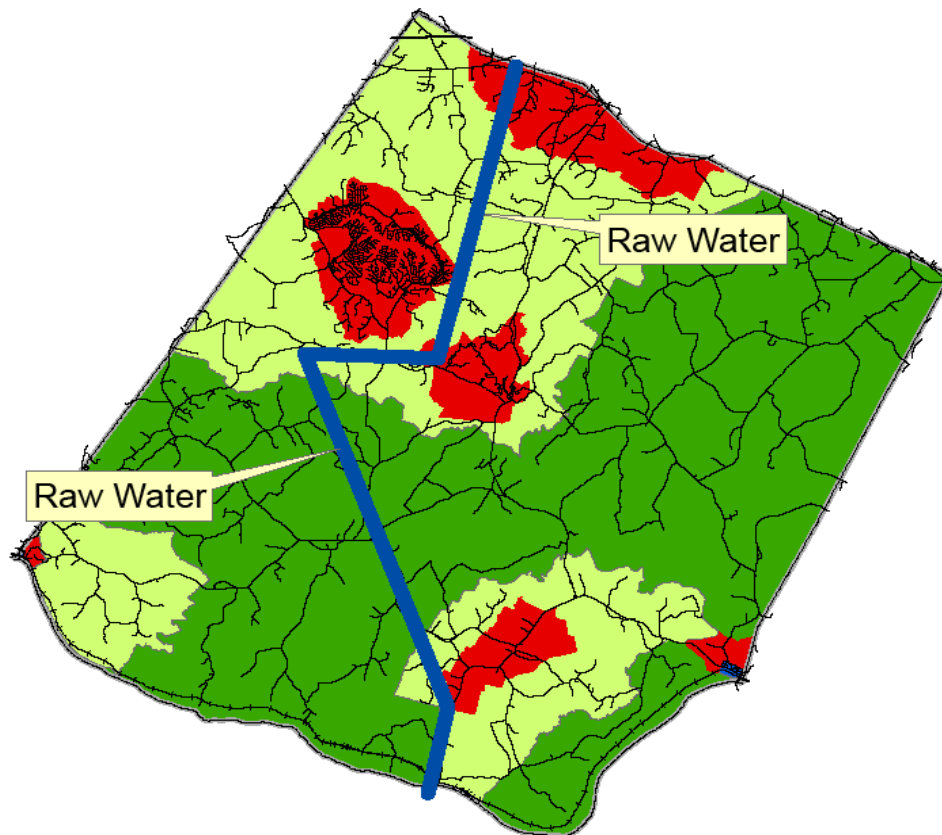
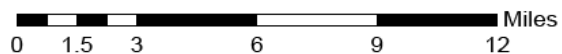
Date: 4/29/10



Legend

2009 Planning Areas

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



Fluvanna County



Waterline Options

Option 9: James River to Zion Crossroads via Lake Monticello

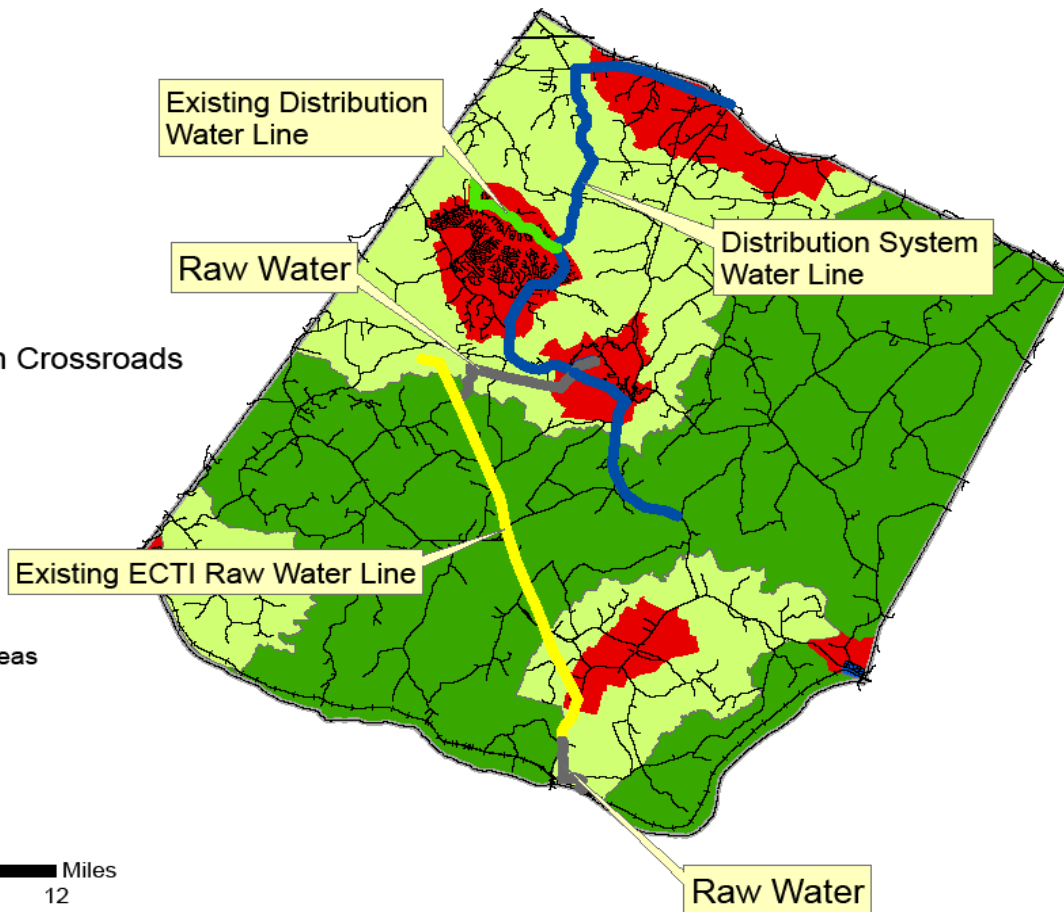
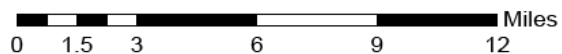
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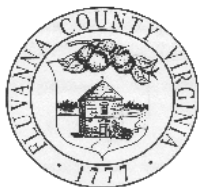
Legend

2009 Planning Areas

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



Fluvanna County



Waterline Options

Option 10: James River to Louisa
Along Route 15

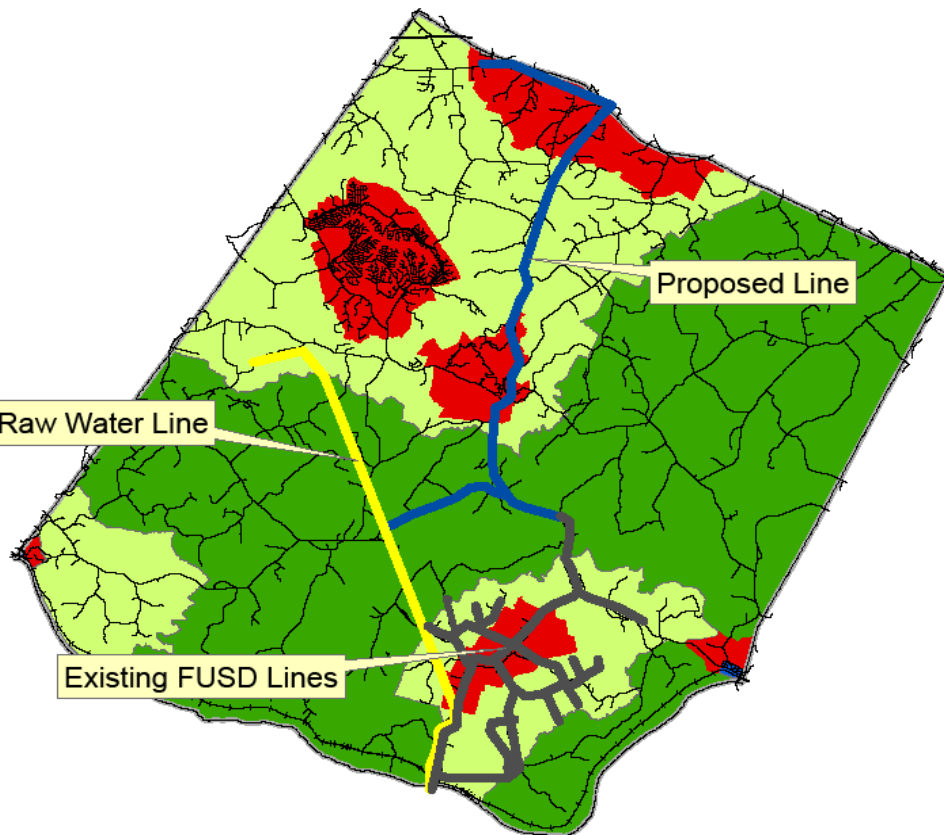
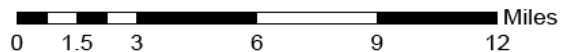
Date: 4/29/10



Legend

2009 Planning Areas

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



Fluvanna County



Waterline Options





Option 11: Aqua Virginia Proposal

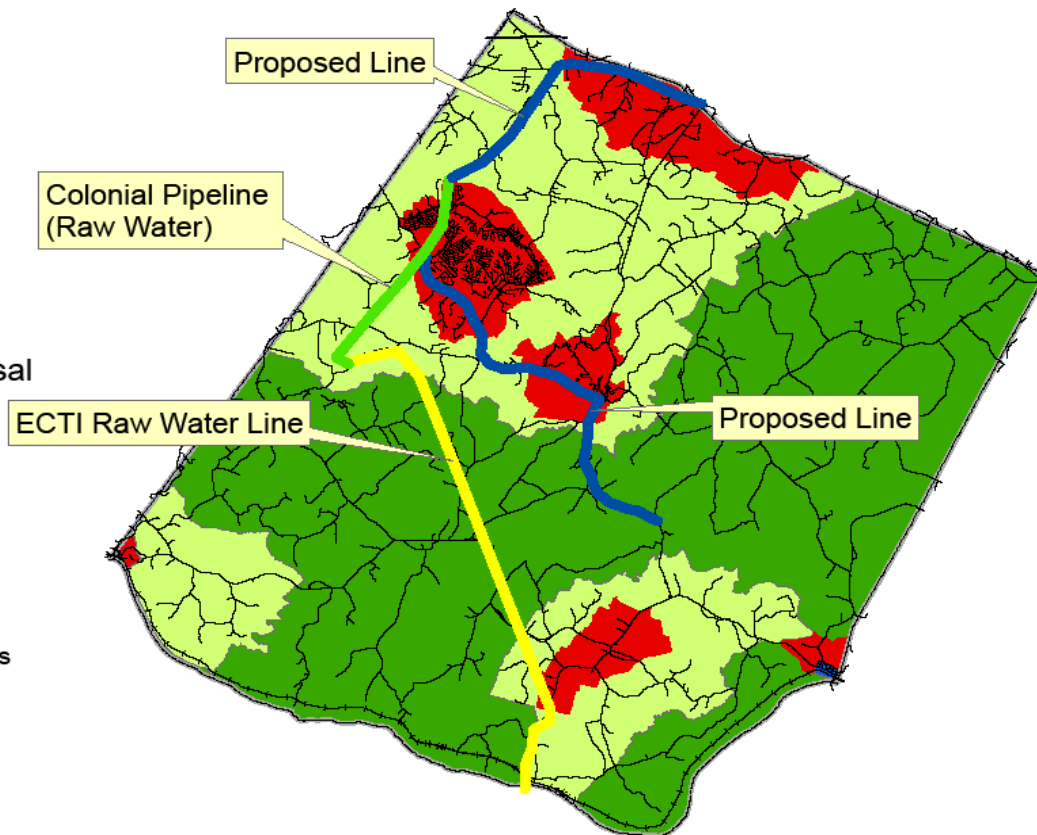
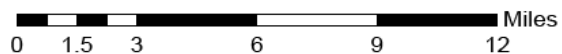
Date: 4/29/10



Legend

2009 Planning Areas

-  Community Planning Areas
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-  Town Boundaries



Fluvanna County



Waterline Options





Option 12: Raw Water to Louisa Plan

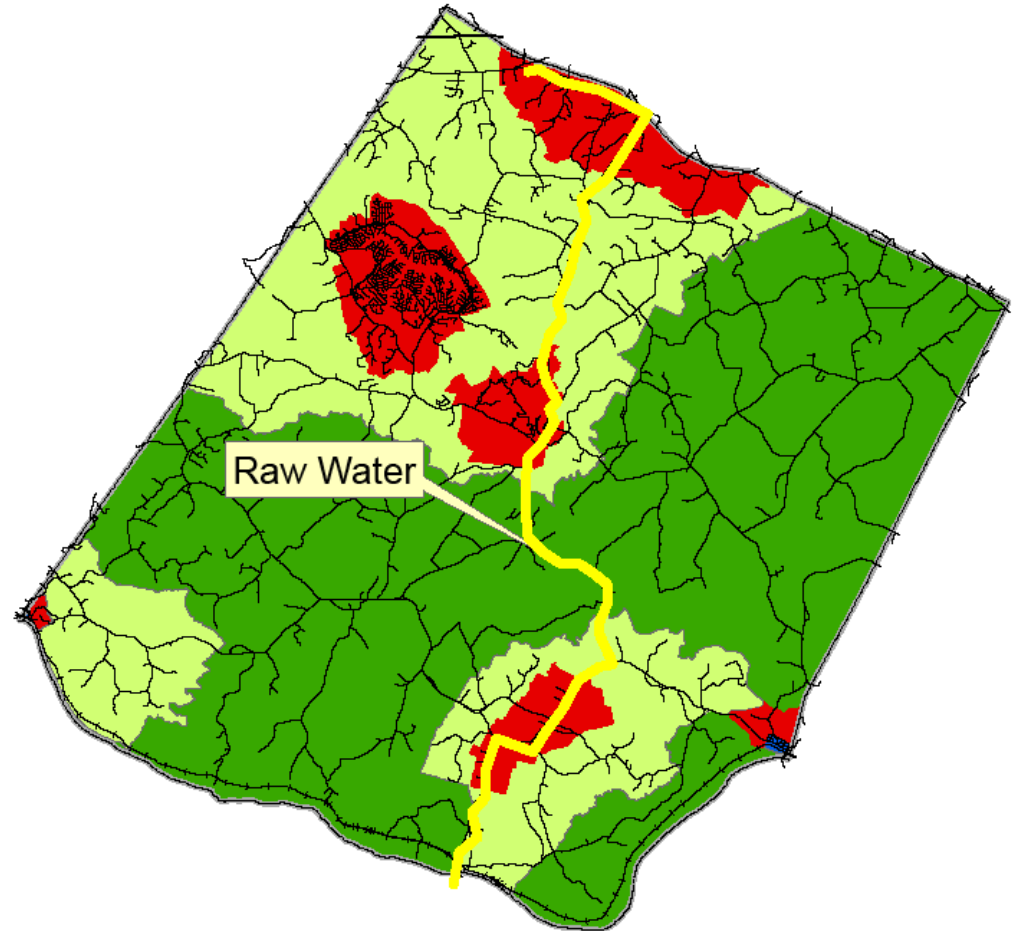
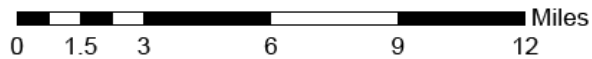
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Legend

2009 Planning Areas

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



Fluvanna County



Waterline Options





Option 13: Mechunk Reservoir

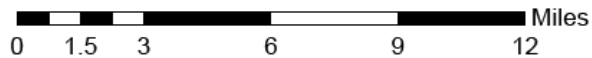
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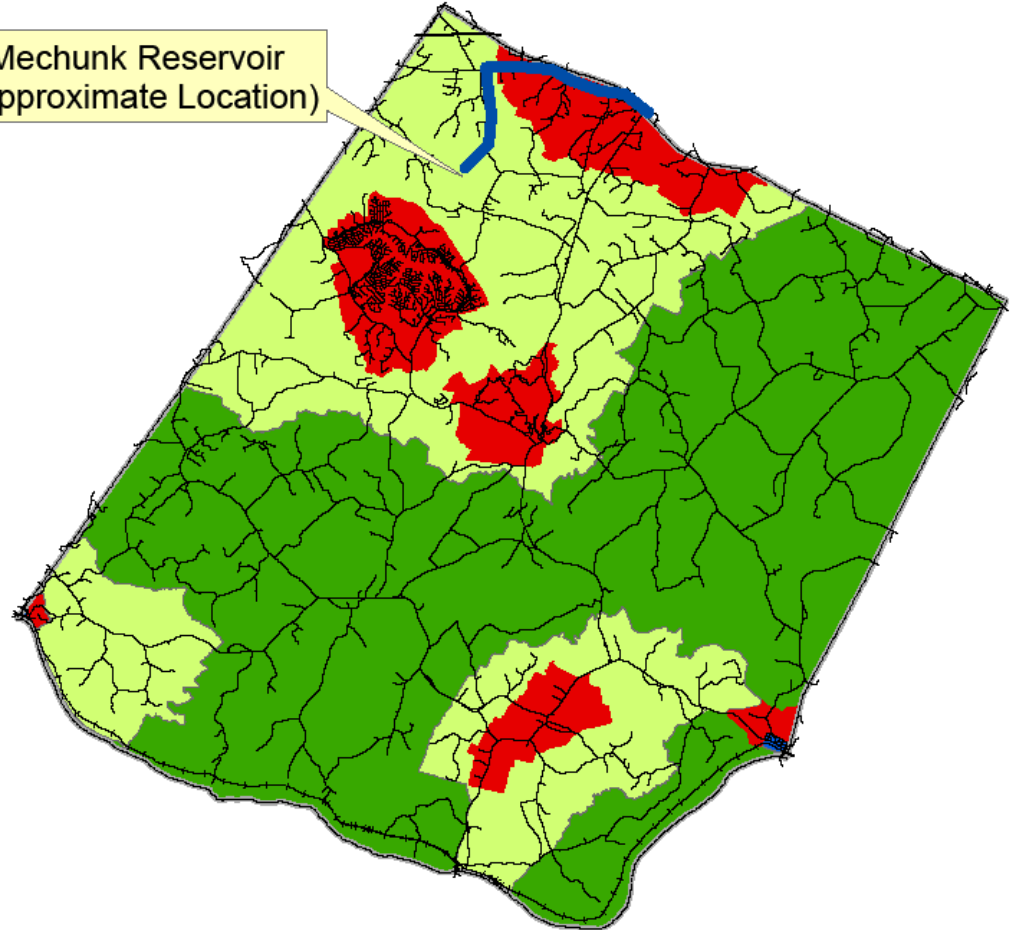
Legend

2009 Planning Areas

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Mechunk Reservoir
(Approximate Location)



Financial Analysis (con't)

- A financial analysis of each alternative will be completed to determine the best alternative and the financial viability of each alternative
- Revenue and Expenses will be calculated, and,
- Key indicators will be compared to determine how each alternative ranks

Financial Analysis (con't)

- The Revenue and Expense will include:
- Revenue
 - Availability and Connection Fees
 - Water Use Fees
 - Partner Contributions
- Expenses
 - Construction Costs
 - Financing Costs
 - Operational Costs

Sample Financial Model

Citizens' Water Committee Cost Benefit Model		DRAFT		
James River to Pleasant Grove Up Route 600 to Zion Crossroads		Initial Water Usage	Year 1	Year 2
		(gpd)	FY 2011	FY 2012
Water Demand Estimates				
<i>Input Data for Demand Calculations</i>				
Percentage change in DOC demand	0.00%			
Percentage change in FUSD demand	0.10%			
	1.50%			
Percentage change in School demand	0.00%			
Change in Number of ERU's each year in Zion Crossroads - LDA	1.50%	150.00		
Change in Number of ERU's each year in Zion Crossroads - Non-LDA	1.50%	150.00		
<i>Projected Water Demands (gpd)</i>				
Louisia Co. Water Authority (Assumes Zion Crossroads & Ferriciff)		189068	189,068	222,000
Fluvanna County - Department of Corrections		120000	-	-
Fluvanna County - FUSD		140000	-	-
Fluvanna County - Palmyra		600	-	-
County Bldgs	1.50%	6000	-	-
Fluvanna County - School Systems	1.50%	25000	-	-
Fluvanna County - Zion Crossroads LDA		0	-	-
Fluvanna County - Zion Crossroads Non-LDA		0	-	-
Projected Demands (gpd)	gpd		189,068	222,000
Projected Demands (gallons per month)	gallons/month		5,672,040	6,660,009
Projected Annual Demands (gallons)	gallons/year		69,009,820	81,030,110
Projected Annual Demands (MGD)	MGD		0.189	0.222
Operating Expense Estimates				
<i>Cost of purchasing water from Aquas:</i>				
Monthly Minimum			\$ -	\$ -
Volumetric Charges			-	-
Subtotal			\$ -	\$ -
<i>Projected O&M Cost - Water Treatment and Wholesale Distribution:</i>				
Annual Energy Cost			-	-
Annual Chemical Cost			-	-
Annual Manpower Cost			-	-
Annual Tank Maintenance Costs			-	-
Annual Supplies, Engineering, Permitting, Legal			-	-
Annual Equipment Costs			-	-
Subtotal			-	-
<i>Raw Water Pumping Costs (ECTI):</i>				
Monthly Capacity Charge (Based upon April 21, 2009 Tariff)			\$ -	\$ -
Volumetric Charge (Based upon April 21, 2009 Tariff)			-	-
Total Raw Water Costs			\$ -	\$ -
<i>Retail Operational Costs (FLUCO)</i>				
Capital Reserve			-	-
Total Annual Operating Cost			-	-
<i>Cost per 1,000 gallons (based on operating cost)</i>				
			\$ -	\$ -
Construction Cost Estimates				

Fluvanna County



Waterline Options





Option 5: The County is Broke

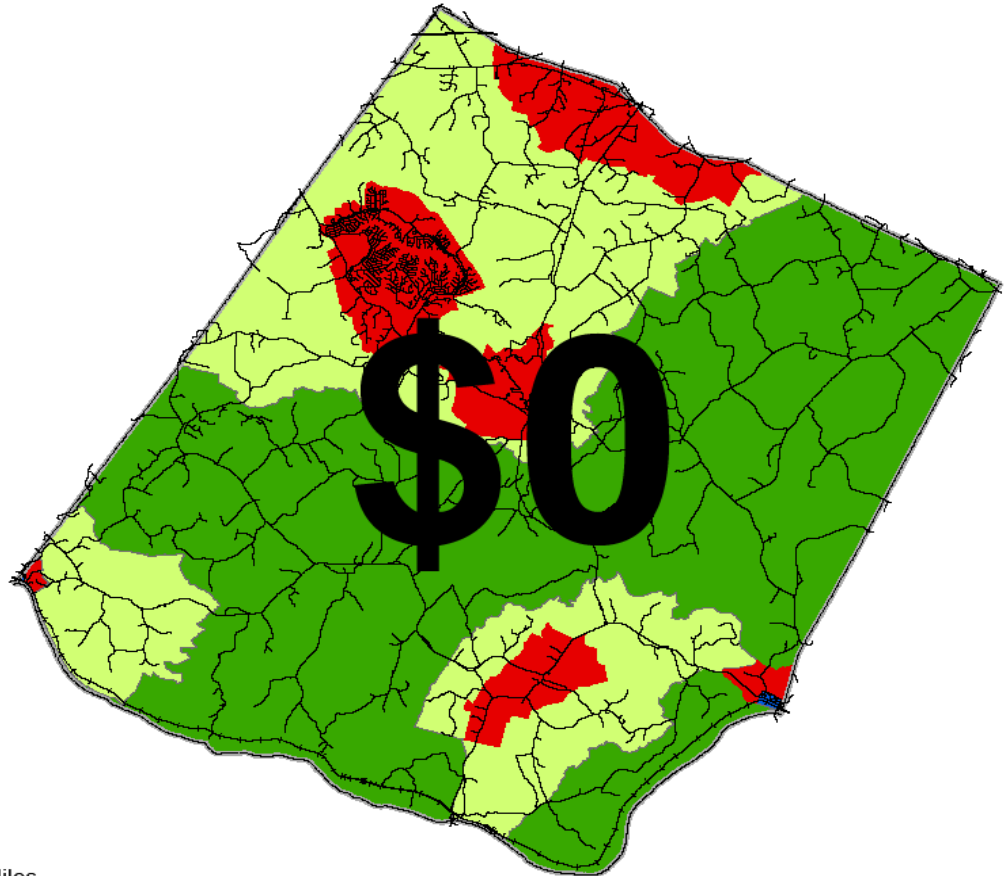
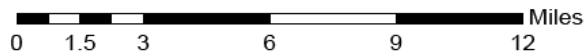
Date: 4/29/10



Legend

2009 Planning Areas

-  Community Planning Areas
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Alternatives And Financial Model Results (con't)

County Is Broke Alternative

Service Areas Provided with Treated Water	County Facilities Served with Treated Water	Total Construction Cost	Maximum Tax Payer Impact (Tax Rate increase needed)	Break-even Year	Net Result over Forty Years
None	None	\$ -	\$ -	-	\$ -

The Fork Union Sanitary District will need to solve their long term water source shortfall. This will require either new water wells and treatment plants for each of these wells (as is used now) or a water intake and surface water treatment plant. The cost of the least expensive solution that was estimated in 1996 by Dewberry and Davis (engineers) was \$2.3 million (1996 dollars). If this expense is carried by the real estate values in the Fork Union Sanitary district through the use of an ad valorem tax, the rate would be \$0.18 tax per \$100 of assessed value or \$37.37/month per a residence valued at \$250,000..

Fluvanna County



Waterline Options





Option 8: "Free Enterprise" Plan

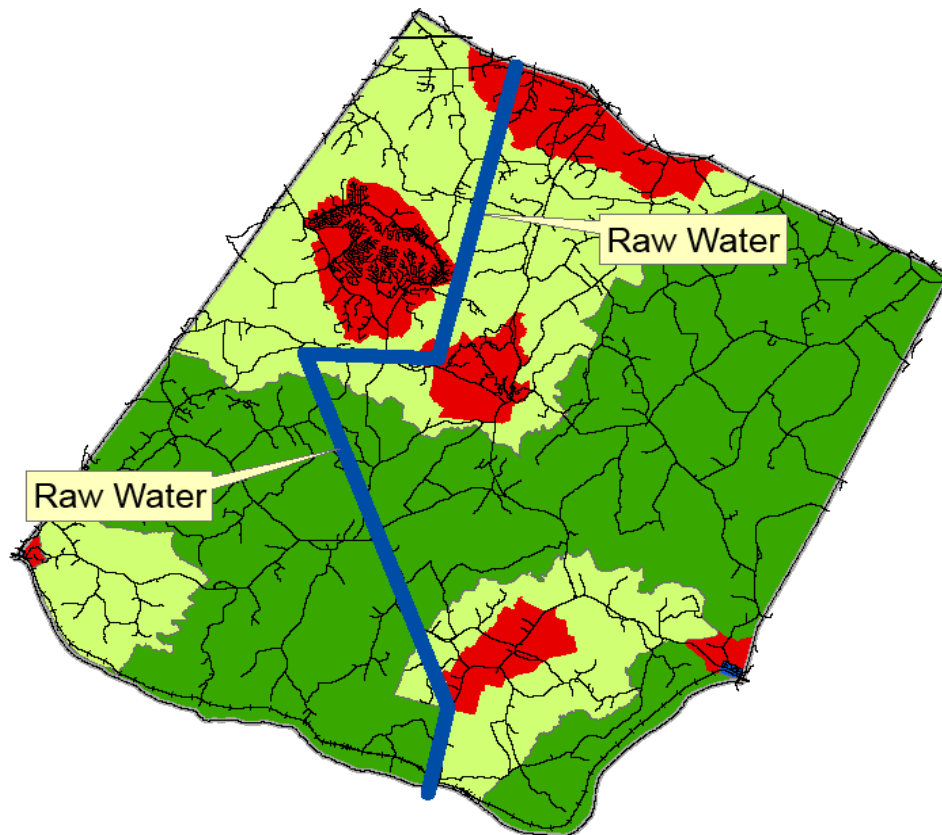
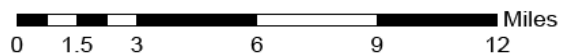
Date: 4/29/10



Legend

2009 Planning Areas

-  Community Planning Areas
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Alternatives And Financial Model Results (con't)

Service Areas Provided with Treated Water	County Facilities Served with Treated Water	Total Construction Cost	Maximum Tax Payer Impact (Tax Rate increase needed)	Break-even Year	Net Result over Forty Years
None (the Prison would be provided with raw water and FUSD would be provided with raw water)	None	\$ 11,752,330	\$ 0.015	Year 28	\$ 3,104,661

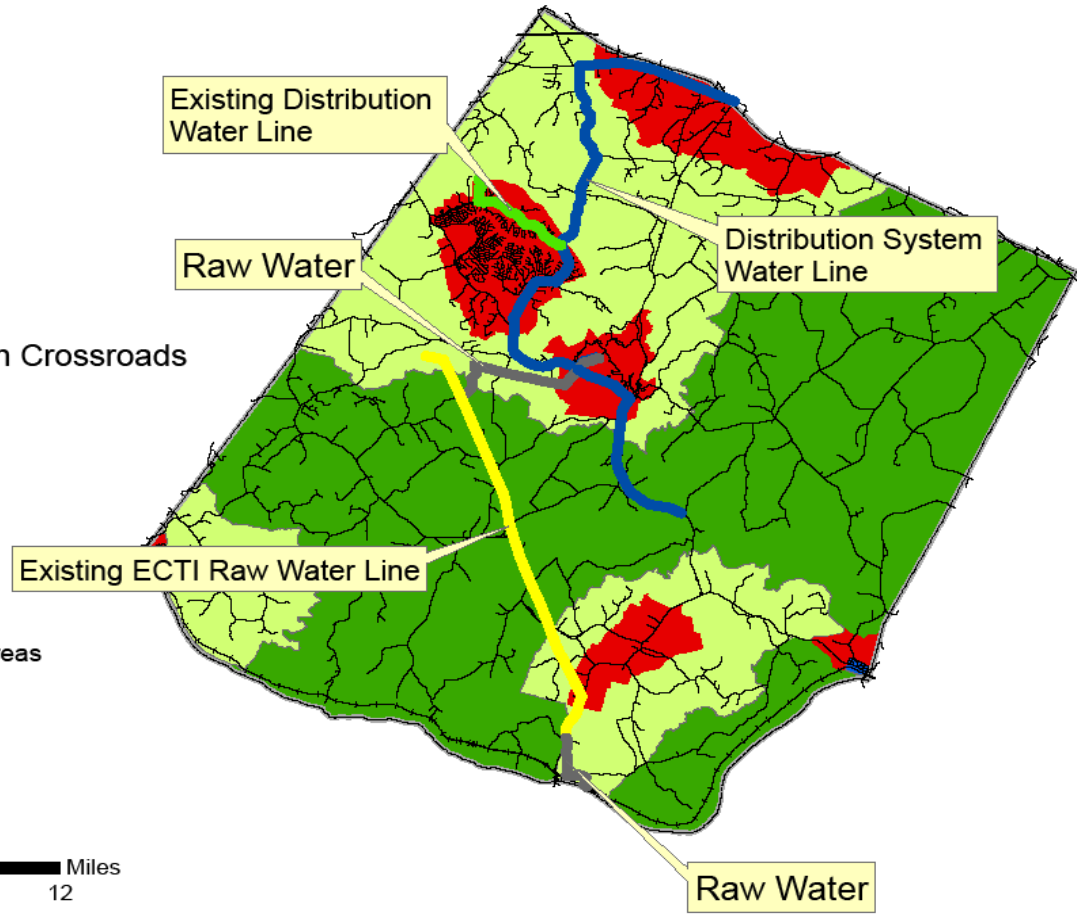
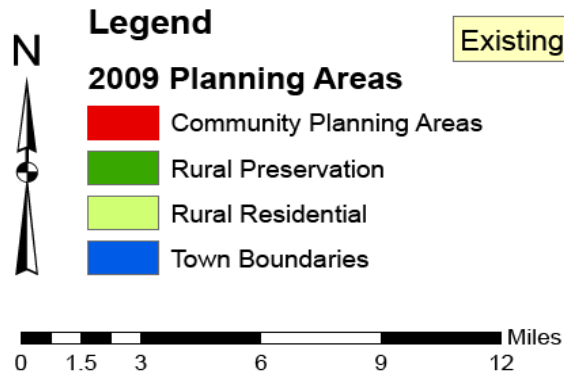
Fluvanna County



Waterline Options

Option 9: James River to Zion Crossroads via Lake Monticello

Date: 4/29/10



Alternatives And Financial Model Results (con't)

James River to Zion Crossroads Via LM					
Service Areas Provided with Treated Water	County Facilities Served with Treated Water	Total Construction Cost	Maximum Tax Payer Impact (Tax Rate increase needed)	Break-even Year	Net Result over Forty Years
FUSD, Palmyra, Rivanna Zion Crossroads	Existing High School, New High School, Central Elementary, Government Buildings at PG and Palmyra	\$ 56,805,000	\$ 0.033	Year 22	\$ 13,434,912

Fluvanna County



Waterline Options

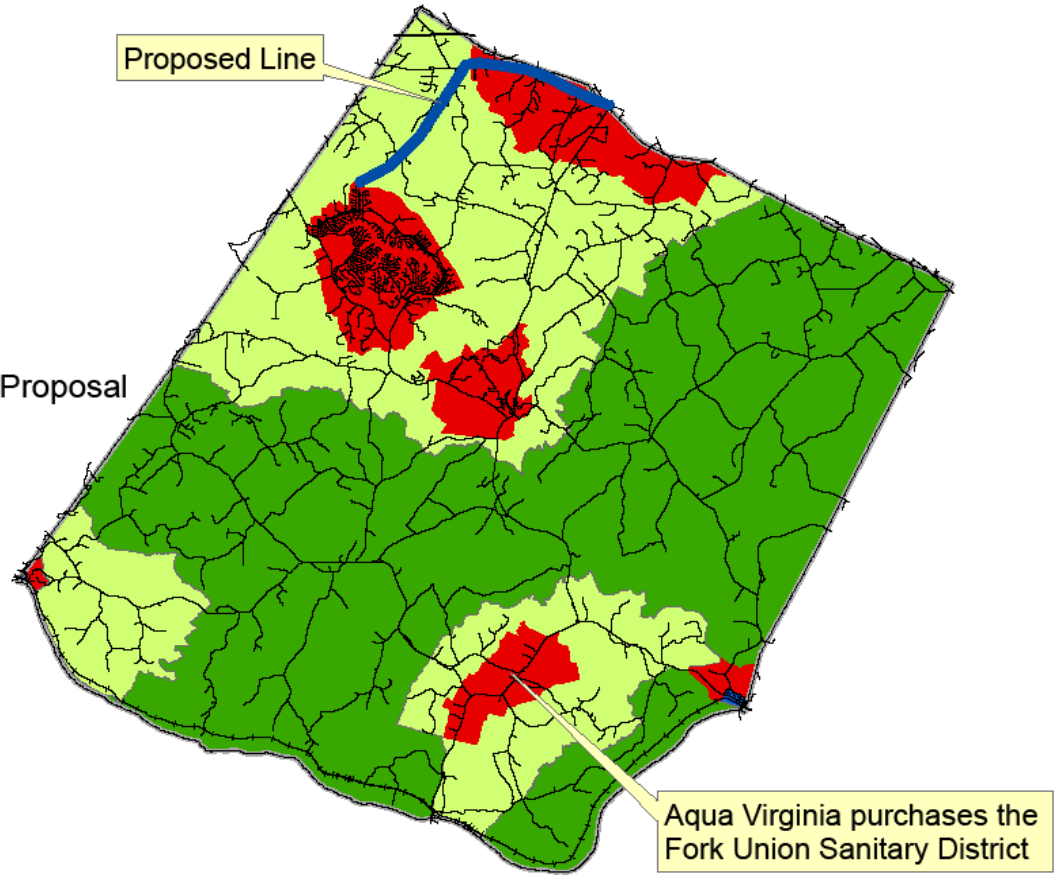
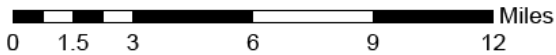
Option 11: Modified Aqua Virginia Proposal

Date: 6/21/10

Legend

2009 Planning Areas

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Alternatives And Financial Model Results (con't)

AquaVirginia Alternative					
Service Areas Provided with Treated Water	County Facilities Served with Treated Water	Total Construction Cost	Maximum Tax Payer Impact (Tax Rate increase needed)	Break-even Year	Net Result over Forty Years
Rivanna, Zion Crossroads (FUSD is Sold)	None	\$ 7,645,000	\$ 0.015	Year 11	\$ 20,549,721