County Water Planning Committee
Agenda Thursday, February 19, 2015

3:00 PM

I. Change Order – Phase 1A Remaining Funds (Mr. McMillen & Mr. Fred Hobbs)

Request: To approve Contract 2 - Change Order #6 for Phase 1A with H.G. Reynolds in an amount not to exceed $369,883 to utilize the remaining grant funds for extending a waterline along Rock Mill Road subject to USDA approval.

Request: To approve additional funds for construction inspections in an amount not to exceed $23,000.

II. Water Pricing Discussion (Mr. Mike Myers, Envirolink to lead discussion)

The committee previously reviewed the base fee in April, June and September 2014 at the request of Commissioner Brown. During these meetings the committee discussed the adverse financial impact to the water system and the general fund with the reduction in base fee from $30 to $20. The committee voted 2-1 in September to recommend maintaining the current base rate of $30.

The committee decided during their January 5, 2015 meeting to work with staff, Envirolink and the engineer to strategize pricing options and alternatives as well as additional potential incentives to encourage participation into the system.

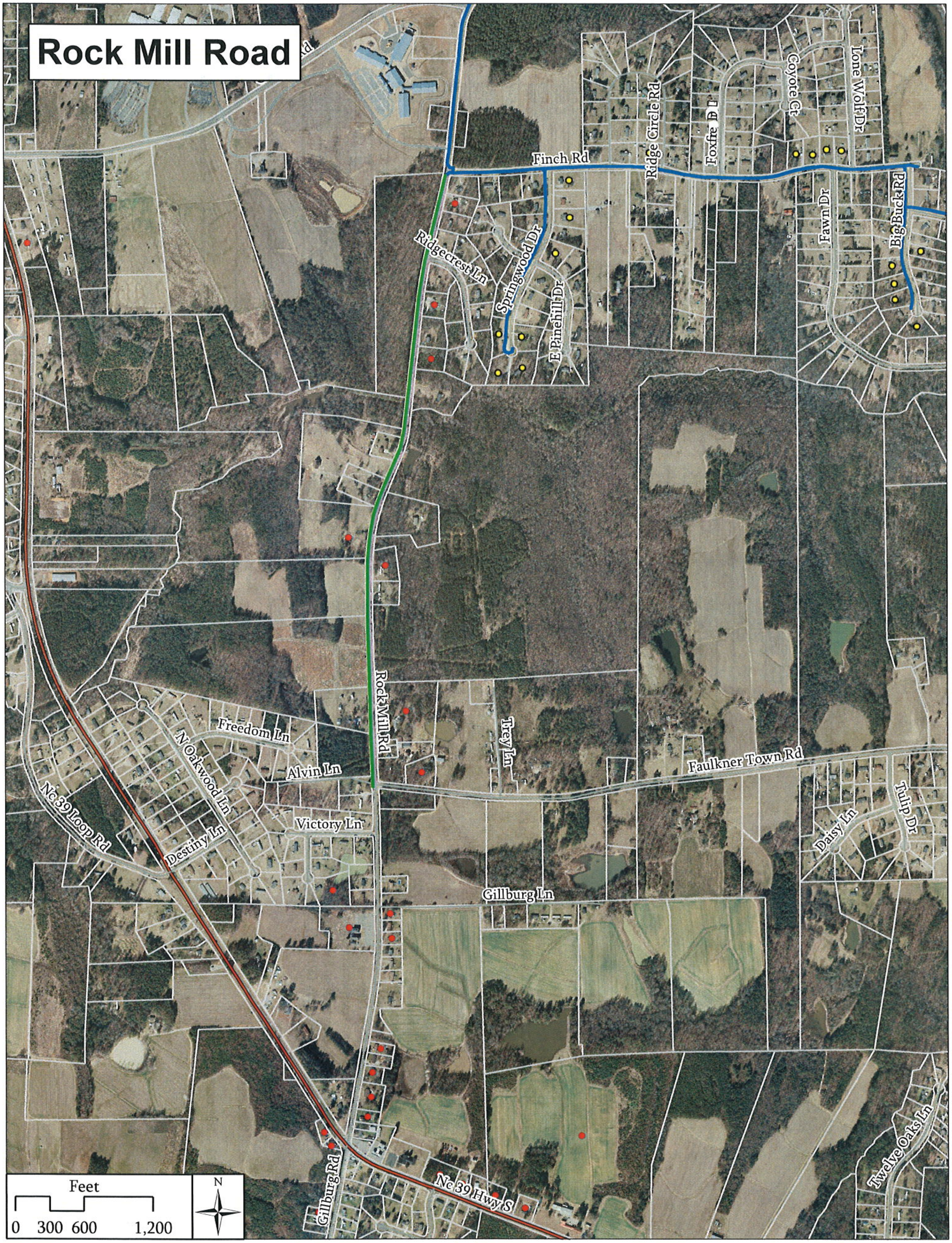
III. Adjournment

Analysis of Expenditures and Cost Projections

February 16, 2015

Remaining Funds Calculation

	$ 7,786,300.00	**Total Project Cost**
-	$ 7,036,061.00	Total Expended to Date
-	$ 75,230.66	Retainage Contract #1
-	$ 190,820.74	Retainage Contract #2
	$ 5,066.00	Screening Slats (Meter vault/TankSite) (3 sides)
	$ 74,130.40	MHP off Vincent Hoyle Road
	$ 11,000.00	Construction Mgmt. & Inspections for additional work
	$ 7,392,308.80	**Total Expenditures/Obligations to Date**
	$ 7,786,300.00	Total Project Cost
-	$ 7,392,308.80	Total Expenditures/Obligations to Date
	$ 393,991.20	**Remaining Funds**
-	$ 23,000.00	*Construction Mgmt. & Inspections for additional work*
-	$ 369,882.24	*Rock Mill Road from Finch Road to Faulkner Town Road*
	$ 1,108.96	Remaining Funds



Rock Mill Road
Finch Rd
Ridge Circle Rd
Coyote Ct
Lone Wolf Dr
Ridgecrest Ln
Springwood Dr
E Pinehill Dr
Fawn Dr
Big Buck Rd
Rock Mill Rd
Freedom Ln
N Oakwood Ln
Trey Ln
Alvin Ln
Faulkner Town Rd
Daisy Ln
Tulip Dr
Nc 39 Loop Rd
Victory Ln
Destiny Ln
Gillburg Ln
Twelve Oaks Ln
Gillburg Rd
Nc 39 Hwy S
Feet
0 300 600 1,200
N

VANCE COUNTY WATER DISTRICT

5 YR Income Statement

Line No.	Item	Discount Rate = 0.75% 2014-2015 Year 1	2015-2016 Year 2	2016-2017 Year 3	2017-2018 Year 4	2018-2019 Year 5
	Operating Revenue					
1	Metered Service Revenue	$ 239,000	$ 414,080	$ 513,426	$ 520,361	$ 527,211
1a	16375-437500 Metered Water Sales	$ 239,000	$ 414,080	$ 513,426	$ 520,361	$ 527,211
2	Flat Rate Availability Revenue	$ 80,640	$ 120,960	$ 142,560	$ 139,765	$ 137,024
2a	16375-437501 Non-Metered Water Revenue	$ 80,640	$ 120,960	$ 142,560	$ 139,765	$ 137,024
3	16376-437506 Re-Connect Fees	$ 3,200	$ 5,350	$ 6,560	$ 6,601	$ 6,642
4	16376-437507 NSF Check Fees	$ 1,600	$ 2,675	$ 3,280	$ 3,301	$ 3,321
5	16376-437508 Late Payment Fees	$ 1,600	$ 2,675	$ 3,280	$ 3,301	$ 3,321
6	16376-437005 Miscellaneous Revenue	$ -	$ -	$ -	$ -	$ -
7	Total Operting Revenue (Sum of Line 1 thru Line 7)	$ 326,040	$ 545,741	$ 669,106	$ 673,328	$ 677,520
	Operating Expenses					
8	16665-500001 Regular Salaries- Project Manager	$ -	$ 66,000	$ 66,000	$ 66,000	$ 66,495
9	16665-500045 Contracted Services	$ 46,800	$ 46,800	$ 46,800	$ 53,100	$ 53,100
10	Administrative and office expenses	$ 98,641	$ 142,345	$ 163,588	$ 172,429	$ 172,870
10a	16665-500011 Telephone & Postage	$ 5,500	$ 5,541	$ 5,583	$ 5,625	$ 5,667
10b	16665-500044 Special Contracted Services	$ 40,896	$ 67,104	$ 80,358	$ 80,515	$ 80,674
10c	16665-500033 Departmental Supplies	$ 28,875	$ 29,092	$ 29,310	$ 29,530	$ 29,751
10d	16665-500054 Insurance & Bonds	$ 1,500	$ 1,511	$ 1,523	$ 1,534	$ 1,546
10e	16665-500347 Permits	$ 870	$ 877	$ 883	$ 890	$ 896
10f	16665-500283 Debt Service Reserve	$ 21,000	$ 38,220	$ 45,932	$ 54,336	$ 54,336
11	16665-500286 System Maintenance	$ 28,125	$ 28,336	$ 28,548	$ 28,763	$ 28,978
12	16665-500079 Purchased Water	$ 66,385	$ 240,000	$ 241,800	$ 243,614	$ 245,441
13	16665-500013 Utilities	$ 13,350	$ 13,450	$ 13,551	$ 13,653	$ 13,755
14	16665-500026 Advertising Expense	$ 5,500	$ 5,541	$ 5,583	$ 5,625	$ 5,667
15	16665-500284 Capacity Fee- City	$ 52,875	$ 52,875	$ 52,875	$ 52,875	$ 52,875
16	16665-500282 Bad Debt Expense	$ 5,000	$ 5,038	$ 5,075	$ 5,113	$ 5,152
17	16665-500088 Bank Service Charges	$ 250	$ 252	$ 254	$ 256	$ 258
18	Total operation and maintenance expenses (sum of Line 8 thru Line 14)	$ 316,926	$ 595,347	$ 618,745	$ 636,058	$ 639,181
19	16665-500390 Depreciation Expense	$ 23,400	$ 23,576	$ 53,199	$ 53,598	$ 54,000
20	Total operating expenses (Sum of Line 15 and Line 16)	$ 340,326	$ 618,923	$ 671,944	$ 689,656	$ 693,181
21	Net operating income	$ (14,286)	$ (73,182)	$ (2,839)	$ (16,328)	$ (15,662)
22	Interest expense	$ 182,878	$ 382,200	$ 459,315	$ 543,364	$ 543,364
23	Net income	$ (197,164)	$ (455,382)	$ (462,154)	$ (559,692)	$ (559,026)

VANCE COUNTY WATER DISTRICT

5 YR Cash Flow

Line No.	Item	Discount Rate = 0.75% 2014-2015 Year 1	2015-2016 Year 2	2016-2017 Year 3	2017-2018 Year 4	2018-2019 Year 5
	Cash Flows From Operating Activities					
1	Pre-tax operating income (loss)					
2	Total operating revenue	$ 326,040	$ 545,741	$ 669,106	$ 673,328	$ 677,520
3	Less: Operation and maintenance expenses	$ 316,926	$ 595,347	$ 618,745	$ 636,058	$ 639,181
4	Pre-tax operating income (loss)	$ 9,114	$ (49,607)	$ 50,361	$ 37,270	$ 38,339
	Income Tax Calculation:					
5	Pre-tax operating income (loss)	$ 9,114	$ (49,607)	$ 50,361	$ 37,270	$ 38,339
6	Less: Interest expense	$ 182,878	$ -	$ -	$ -	$ -
7	Taxable income (loss)	$ (173,764)	$ (49,607)	$ 50,361	$ 37,270	$ 38,339
8	Net cash provided by (used in) operating activities	$ 9,114	$ (49,607)	$ 50,361	$ 37,270	$ 38,339
	Cash Flows From Financing Activities					
9	Less: Principal & Interest repayment of long term debt	$ 182,878	$ 382,200	$ 459,315	$ 543,364	$ 543,364
10	Net cash provided (used) by financing activities	$ (182,878)	$ (382,200)	$ (459,315)	$ (543,364)	$ (543,364)
11	Net increase (decrease) in cash	$ (173,764)	$ (431,807)	$ (408,954)	$ (506,094)	$ (505,025)
12	Cash balance at beginning of year	$ 4,412	$ (169,352)	$ (601,159)	$ (1,010,113)	$ (1,516,207)
13	Cash balance at end of year	$ (169,352)	$ (601,159)	$ (1,010,113)	$ (1,516,207)	$ (2,021,232)

VANCE COUNTY WATER DISTRICT

Projected Customer Counts

Line No.	Item	2014-2015 Year 1	2015-2016 Year 2	2016-2017 Year 3	2017-2018 Year 4	2018-2019 Year 5
	Water					
1	Metered Residential Water	363	594	734	744	754
2	Metered Commercial Water (REU Equivalents)	2	2	5	5	5
3	Metered Industrial Water (REU Equivalents)	0	0			
	Subtotal - Metered Water	365	596	739	749	759
4	Flat Rate Residential Water	255	336	396	388	381
5	Flat Rate Commercial Water (REU Equivalents)	0	0			
6	Flat Rate Industrial Water (REU Equivalents)	0	0			
	Subtotal Flat Rate Water	255	336	396	388	381
	Total Water	620	932	1135	1137	1139

Notes

1 Used 0.3% growth rate based on NC Office of State Budget and Management Data

2 Actual total connections 365 as of Jan 2015

3 Used total initial connection for phase 2a of 172 plus 97 road addition signups (Jan. 2015)

4 Used total initial connection for phase 2b of 106 plus 99 road addition signups (Jan. 2015)

5 Assumed 60.6% participation rate. This is the rate of total signups to total potential customers based on customer mailing list and 9-25-13 email.

6 Year 1 = 2014 Fiscal Year

7 Year 1 - 620 customers where roads are located (2014-2015 fiscal year).

8 In all Years a 70/30 ratio was used to divide customers into two groups; metered and availability customers

ENVIROLINK

Briefing for Vance County Water Committee

Components of Common Rate Structures (excluding Capacity, Connection or Impact Charges)

1. Availability Charge
2. Base Charge
    a. Allowance
3. Usage/Volumetric Charge

Common Rate Structures

Volumetric or Usage Charge

Across the United States, there several different options employed for volumetric or usage charge. In North Carolina the three most common are:

1. Uniform
2. Increasing Block
3. Decreasing Block

In addition to these structures, a few utilities use hybrids of these such as:

1. Increasing-Decreasing Block
2. Seasonal Uniform

Lastly, it is fairly common for utilities to have separate Volumetric or Usage Charge based on Customer Class (e.g. Commercial, Residential, Irrigation, etc.)

Trends

Important trends in North Carolina

- Of 378 water utilities, nine changed rate structures in 2014. The current trend for utilities is converting from other rate structures to a uniform rate structure.

Envirolink, Inc.
Your Partner in Utility Management
PO Box 670, Bailey, North Carolina 27807
252-235-4900 (phone) 252-235-2132 (fax)

Vance County Water District
February 2015 Pricing Options and Incentives

Rate Structure Options

- **Reduce** the **availability fee –** Estimate 336 availability customers in 2016
  - Annual Revenue Reduction per $1.00 of reduction **$ 4,032**
- **Reduce** the **base fee – Estimate** 596 active customers in 2016
  - Annual Revenue Reduction per $1.00 of reduction **$ 7,152**
- **Reduce** the **availability and base fees** – Estimate 932 active & availability in 2016
  - Annual Revenue Reduction per $1.00 of reduction **$ 11,184**
- **Add 1,000 gallon Allowance** to the base rate
  - Annual Revenue Reduction for a 1,000 gallon allowance - **$ 54,302**
    (3200 gal x .33 = 1056 x .00719 x 12 = 91.11 x 596 customers = $54,302)
- **Reduce availability fee** and **add 1,000 gal allowance**
  - Annual Revenue Reduction per $1.00 of reduction: $4,032 + $54,302 = **$ 58,334**
- **Reduce base fee** and **add 1,000gal allowance**
  - Annual Revenue Reduction per $1.00 of reduction: $7,152 + $54,302 = **$ 61,454**
- **Reduce availability** & **base fees include 1,000 gal** allowance
  - Annual Revenue Reduction per $1.00 of reduction: **$ 65,486**
    $4,032 + $ 7,152 + $ 54,302 =
- **Eliminate availability** fee
  - Annual Revenue Reduction: **$ 120,960**
- **Eliminate availability** fee and **reduce base** fee
  - Annual Revenue Reduction: $120,960 + $7,152 = **$ 128,112**
- **Eliminate availability** fee **add 1000 gal** allowance
  - Annual Revenue Reduction: $120,960 + $54,302 = **$ 175,262**
- **Eliminate availability** fee, **reduce base** fee and **add 1000gal** allowance
  - Annual Revenue Reduction per $1.00 of reduction: **$ 184,414**
    $120,960 + $7,152 + $ 54,302 =
- **Eliminate base** fee
  - Annual Revenue Reduction: **$ 214,560**
- **Eliminate availability** fee **and base** fee
  - Annual Revenue Reduction: $120,960 + $214,560 = **$ 335,520**

Potential Scenarios

- **Reduce availability fee $5.**
  - Generates an additional revenue deficit of $20,160 annually.
  - Options to make up revenue deficit
    1. Increase base fee to $32.82
    2. Increase usage fee from $7.19 to $8.07 per 1,000
- **Reduce base fee $5.**
  - Generates an additional revenue deficit of $35,760
  - Options to make up revenue deficit
    1. Increase availability fee to $38.87
    2. Increase usage fee from $7.19 to $8.75 per 1,000

Other options

- **Eliminate or Reduce Debt Service through another funding mechanism**

Marketing Strategies:

1. Open/continue window of reduced tap fee to encourage participation
2. Offer a one-time allowance of up to 15,000 gallons of water during the first six months of service for active customers that pay the base fee
3. County Health Department could offer to pay for free sampling of well water
    a. Combined with option 1
    b. Would provide baseline well water quality information
    c. Estimated number of individual wells per phase for potential customers (Customers that did not sign up or connect)
        i. Phase 1A – 470
        ii. Phase 2A – 300
        iii. Phase 2B – 312

Phase	Customer	Fecal ($22)	Radium 226/228 ($170)	Gross Alpha ($105)	Radon ($)
1A	470	$10,340	$79,900	$49,350	
2A	300	$6,600	$51,000	$31,500	
2B	312	$6,864	$53,040	$32,760	

ENVIROLINK

Benefits for Water System...by Customer Type (adapted from AWWA)

Public water systems deliver improved public health, It delivers fire protection, It delivers economic development, It delivers quality of life

Public health protection – Active Customers connected to the system

The first obligation of any water supplier is to provide water that is safe for consumption.

In a world where an estimated 3 million people die every year from preventable waterborne disease, water systems in North America allow us to drink from virtually any public tap with a high assurance of safety. A safe water supply is critical to protecting the public health - the first obligation of all water suppliers. Without our modern water systems, diseases such as cholera and dysentery would be part of everyday life. In the United States, water utilities monitor for more than 100 contaminants and must meet close to 90 regulations for water safety and quality. Those water standards are among the world's most stringent. Community water supplies are tested every day. Tap water undergoes far more frequent testing than bottled water. Well water for individual homes goes virtually untested. Many North American water systems add small amounts of fluoride to their water supplies to help prevent tooth decay. Child cavity rates have been reduced by 20-40% where fluoridation has been implemented.

Fire protection – Active Customers, Availability Customers, Adjacent Property Owner/Tenant

A well-maintained water system is critical in protecting our communities from the ever-present threat of fire.

Water flowing to fire hydrants and home faucets is transported by the same system of water mains, pumps and storage tanks.

A water system that provides reliable water at a high pressure and volume can be the difference between a manageable fire and an inferno. The ability to provide water for fire protection heavily influences: home construction, location decisions and lower homeowner insurance rates; an estimated value discount in Vance County of approximately $325.per property annually. Firefighters are the primary operators of fire hydrants, but your water utility is usually responsible for maintaining the hydrants. That maintenance is supported through our water bills. In 2004 alone, U.S. fire departments responded to 1.55 million fires across the country.

Support for the economy – Active Customers, Availability Customers, Adjacent Property Owner/Tenant, Non-Customers not adjacent

A safe, reliable water supply is central to the economic success of our communities.

Tap water is critical to the day-to-day operations of existing businesses and to the viability of new commercial enterprises or residential developments. From foods and beverages to toothpastes and perfumes, water is the primary ingredient in hundreds of thousands of everyday products. Businesses take into consideration as one of the primary factors, the availability and quality of water when determining where to locate their offices or manufacturing facilities. The availability of water resources and service therefore has a profound effect on job creation. Lack of access to public water can hold up multi-million dollar developments - commercial or residential - placing a severe strain on local economies. Availability of public water lowers development cost, promoting development in areas with access to water over areas without access to public water.

Quality of life – Active Customers, Availability Customers, Adjacent Property Owner/ Tenant, Non-Customers not adjacent

Tap water is more than a convenience; it is central to our everyday lives. Any measure of a successful society; low mortality rates, economic diversity, productivity, public safety; is in some way related to access to safe water. Without tap water, how would we rinse our produce, clean dishes and clothes, water plants and landscapes and wash our cars? Where would we shower? How many businesses would have to suspend operations or relocate entirely? How would our institutions - from hospitals to firehouses to schools - function?

Tap water is so intricately part of our lives that we can hardly imagine a day without it.

Land Values – Active Customers, Availability Customers, Adjacent Property Owners

Availability of water increases land values