

MINUTES
LINCOLN COUNTY BOARD OF COMMISSIONERS
MONDAY, JULY 12, 2010

The Lincoln County Board of County Commissioners met on July 12, 2010 at the Citizens Center, Board of Commissioners Room, 115 West Main Street, Lincolnton, North Carolina at 6:00 PM.

Commissioners Present:
Alex E. Patton, Chairman
George Arena
James A. Klein
Carroll Mitchem

Commissioners Absent:
Bruce Carlton, Vice Chairman

Others Present:
George A. Wood, County Manager
Martha W. Lide, Assistant County Manager
Amy S. Atkins, Clerk to the Board
Burns Whittaker, Public Works Director
Dante Patterson, IT Director

Call to Order: Chairman Patton called the July 12, 2010 meeting of the Lincoln County Board of Commissioners to order.

Invocation: Commissioner Patton gave the Invocation and led in the Pledge of Allegiance.

Adoption of Agenda: Chairman Patton presented the agenda for the Board's approval.

AGENDA
LINCOLN COUNTY BOARD OF COMMISSIONERS
JANUARY 25, 2010

1. 6:00 PM Call to Order
2. 6:01 PM Invocation – Chairman Patton
3. 6:02 PM Pledge of Allegiance
4. 6:03 PM Adoption of the Agenda

5. 6:04 PM Presentation by Raftelis Financial Consultants, Inc. of Water and Sewer Rate Study
- 6: 6:34 PM Discussion
- Adjourn

Lex Warmuth and Melissa Levin gave a Power Point Presentation on the Water and Sewer Rate Study.

LINCOLN COUNTY

WATER AND SEWER RATE STUDY WORKSHOP

JULY 12, 2010



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Agenda

- Capacity Fee Update
 - Current Capacity Fees
 - Proposed & Calculated Capacity Fees
 - Projected Capacity Fee Revenue
- Rate Model Update
 - Assumptions
 - Current Forecast
 - Proposed Rate Structure Changes
 - Proposed Forecast
- Customer Impacts
- Reserve Fund Levels
- Ten Year Financial Plan
- Water / Sewer Tap Fees
- Bill Comparison

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WATER AND SEWER RATE STUDY WORKSHOP

Current Capacity Fees

Meter Size	Capacity Ratio	Current Charges	
		Water	Sewer
5/8"	1.00	\$ 4,000	\$ 6,000
1"	2.50	10,000	9,000
2"	8.00	32,000	18,000
3"	16.00	64,000	28,800
4"	25.00	100,000	57,600
6"	50.00	200,000	90,000
8"	80.00	320,000	180,000
10"	115.00	460,000	-
12"	155.00	620,000	-

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Proposed Water Capacity Fees

Water Capacity Fees

Cost per GPD \$ 9.71

Daily EDU (in GPD) 288

Development Fee per EDU \$ 2,795.18

Meter Size	Proposed Charge	Current Charge	% Change
Residential	\$ 2,800	\$ 4,000	-30.0%
3/4"	Calculated	4,000	
1"		10,000	
2"		32,000	
3"		64,000	
4"		100,000	
6"		200,000	
8"		320,000	
10"		460,000	
12"		620,000	

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Calculated Water Capacity Fees

- Based on following equation:

$$\begin{aligned}
 & \$9.71 \text{ (Cost per GPD)} \\
 & \times \text{Estimated Use (GPD)} \\
 & \times 1.20 \text{ (Unaccounted For Water)} \\
 & = \text{Calculated Water Capacity Fee}
 \end{aligned}$$

- 1) \$2,800 is minimum water capacity fee
- 2) Non-residential ¾" meter will be calculated
- 3) "True – up" will be completed after 12 months



LINCOLN COUNTY
WATER AND SEWER RATE STUDY WORKSHOP

Proposed Sewer Capacity Fees

Sewer Capacity Fees

Cost per GPD \$ 13.20

Daily EDU (in GPD) 224

Development Fee per EDU \$ 2,956.21

Meter Size	Proposed Charge	Current Charge	% Change
Residential	\$ 3,000	\$ 6,000	-50.0%
3/4"	Calculated ↓		
1"		9,000	
2"		18,000	
3"		28,800	
4"		57,600	
6"		90,000	
8"		180,000	



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WATER AND SEWER RATE STUDY WORKSHOP

Calculated Sewer Capacity Fees

- Based on following equation:

$$\begin{aligned}
 & \$13.20 \text{ (Cost per GPD)} \\
 & \times \text{Estimated Use (GPD)} \\
 & \times 1.40 \text{ (Inflow/Infiltration Factor)} \\
 & = \text{Calculated Sewer Capacity Fee}
 \end{aligned}$$

- \$3,000 is minimum sewer capacity fee
- Non-residential ¾" meter will be calculated
- "True – up" will be completed after 12 months



LINCOLN COUNTY
WATER AND SEWER RATE STUDY WORKSHOP

Projected Capacity Fee Revenue

Proposed Capacity Fee Revenue

Water Capacity Fee

	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Proposed Fee	\$ 2,800	\$ 2,800	\$ 2,800	\$ 2,800	\$ 2,800
Estimated Number of Connections	28	60	120	225	350
Estimated Annual Revenue	\$ 76,400	\$ 168,000	\$ 336,000	\$ 630,000	\$ 980,000
Revenue Assuming Current Charges	\$ 112,000	\$ 240,000	\$ 480,000	\$ 900,000	\$ 1,400,000
<i>Difference</i>	\$ 35,600	\$ 72,000	\$ 144,000	\$ 270,000	\$ 420,000

Wastewater Capacity Fee

Proposed Fee	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000
Estimated Number of Connections	20	35	80	120	200
Estimated Annual Revenue	\$ 60,000	\$ 105,000	\$ 240,000	\$ 360,000	\$ 600,000
Revenue Assuming Current Charges	\$ 120,000	\$ 210,000	\$ 480,000	\$ 720,000	\$ 1,200,000
<i>Difference</i>	\$ 60,000	\$ 105,000	\$ 240,000	\$ 360,000	\$ 600,000
<i>Total Difference</i>	\$ 95,600	\$ 177,000	\$ 384,000	\$ 630,000	\$ 1,020,000



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WATER AND SEWER RATE STUDY WORKSHOP

Historical Capacity Fee Revenue

Historical Capacity Fee Revenue

	2005	2006	2007	2008	2009
Water Impact Fee	\$ 923,000	\$ 1,062,320	\$ 1,879,570	\$ 1,026,020	\$ 134,800
Sewer Impact Fee					\$ 277,100
Sewer Tap and Impact Fee	\$ 948,488	\$ 997,175	\$ 1,927,743	\$ 913,303	

Estimated Number of Connections

Water	429	494	874	257	34
Sewer	231	243	470	129	46

Projected Number of Connections

	2011	2012	2013	2014	2015
Water	28	60	120	225	350
Sewer	20	35	80	120	200



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WATER AND SEWER RATE STUDY WORKSHOP

Rate Model Assumptions

- 1% Residential water consumption growth
- 3% Residential water consumption growth
- 2.5% Annual operating cost growth
- 0% Miscellaneous revenue growth (excluding capacity fee revenue)



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WATER AND SEWER RATE STUDY WORKSHOP

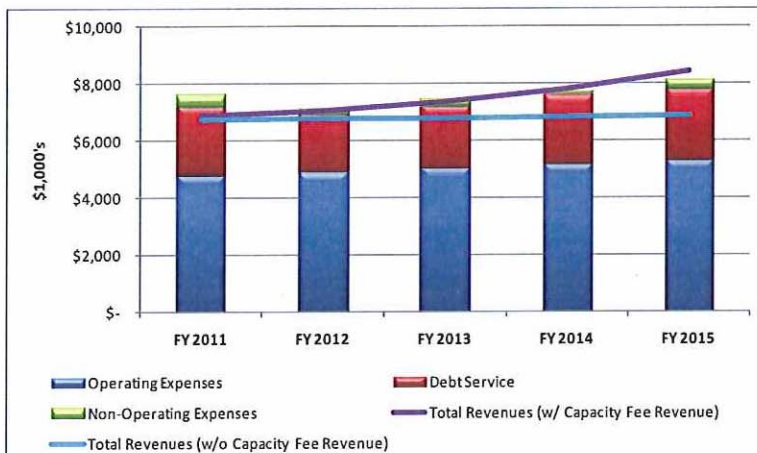
Rate Model Assumptions

- \$8 million water capital expenditures (5 years)
 - \$717,000 revenue funded
 - Remainder financed through low-interest loans (15 year term at 4.25%)
- \$1.3 million sewer capital expenditures (5 years)
 - \$645,000 revenue funded
 - Remainder financed through low-interest loans (15 year term at 4.25%)



LINCOLN COUNTY
WATER AND SEWER RATE STUDY WORKSHOP

Current Forecast



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WATER AND SEWER RATE STUDY WORKSHOP

Current Forecast Coverage

	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
System Revenues					
Water Revenues					
Water Sales Revenue	\$ 4,758,035	\$ 4,793,721	\$ 4,829,765	\$ 4,866,169	\$ 4,902,937
Miscellaneous Revenue	362,400	454,000	622,000	916,000	1,266,000
Sewer Revenues					
Sewer Sales Revenue	\$ 1,711,337	\$ 1,747,086	\$ 1,783,907	\$ 1,821,833	\$ 1,860,897
Miscellaneous Revenue	66,000	111,000	248,000	366,000	606,000
Total: System Revenues	\$ 6,897,771	\$ 7,105,807	\$ 7,481,672	\$ 7,970,003	\$ 8,635,835
System Expenses					
Water Expenses					
Operating Expenses	\$ 2,399,268	\$ 2,459,250	\$ 2,520,731	\$ 2,583,749	\$ 2,648,343
Debt Service	929,596	448,475	631,177	889,256	946,839
Rate-Funded Capital	404,000	105,000	76,000	100,000	-
Sewer Expenses					
Operating Expenses	\$ 2,409,716	\$ 2,469,959	\$ 2,531,708	\$ 2,595,001	\$ 2,659,876
Debt Service	1,473,715	1,569,150	1,540,366	1,557,343	1,528,560
Rate-Funded Capital	-	100,000	200,000	-	345,000
Total: System Expenses	\$ 7,616,295	\$ 7,151,833	\$ 7,499,982	\$ 7,725,349	\$ 8,128,618
System Surplus / Deficit	\$ (718,524)	\$ (46,026)	\$ (18,309)	\$ 244,654	\$ 507,217
Water Surplus / Deficit	1,387,571	2,234,997	2,223,857	2,209,164	2,573,755
Sewer Surplus / Deficit	(2,106,094)	(2,281,023)	(2,242,167)	(1,964,511)	(2,066,539)
Coverage Ratios					
SRF Loan Only - With Capacity Fee Revenue	1.74	1.69	1.92	2.24	2.72
Total Debt - With Capacity Fee Revenue	0.87	1.08	1.12	1.14	1.34
SRF Loan Only - Without Capacity Fee Revenue	1.63	1.48	1.46	1.45	1.43
Total Debt - Without Capacity Fee Revenue	0.81	0.94	0.85	0.74	0.71



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WATER AND SEWER RATE STUDY WORKSHOP

Proposed Rate Structure

- Two rate structure changes are proposed:
 - Gradually reducing the residential, tier 2 usage cutoff from 15 kgal to 10 kgal by FY 2014
 - Gradually increasing the tier 1 sewer rate to match the current tier 2 rate by FY 2014



LINCOLN COUNTY
WATER AND SEWER RATE STUDY WORKSHOP

Proposed Water & Sewer Rates

Monthly Water Billing Rates

	Current	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
(Effective 10/6/08)						
Water Rate Increase:	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
In County Rates						
Minimum Billing (0 - 2,500 gallons)	\$ 20.00	\$ 20.00	\$ 20.00	\$ 20.00	\$ 20.00	\$ 20.00
Each additional 1,000 gallons	4.72	4.72	4.72	4.72	4.72	4.72
Each additional 1,000 gallons (commercial only)	5.72	5.72	5.72	5.72	5.72	5.72
Tier 2 Cutoff (gallons)	15,000	15,000	14,000	12,000	10,000	10,000
* Each additional 1,000 gallons (over Tier 2 Cutoff)	5.72	5.72	5.72	5.72	5.72	5.72
* Each additional 1,000 gallons (over 15,000 gallons - voluntary restrictions)	7.15	7.15	7.15	7.15	7.15	7.15
* Each additional 1,000 gallons (over 15,000 gallons - mandatory restrictions)	11.44	11.44	11.44	11.44	11.44	11.44
* Each additional 1,000 gallons (over 200,000 gallons, industrial use only)	4.22	4.22	4.22	4.22	4.22	4.22
Interruptible Agricultural Rate per 1,000 gallons	4.00	4.00	4.00	4.00	4.00	4.00
Bulk Water Rate per 1,000 gallons	8.00	8.00	8.00	8.00	8.00	8.00

Monthly Sewer Billing Rates

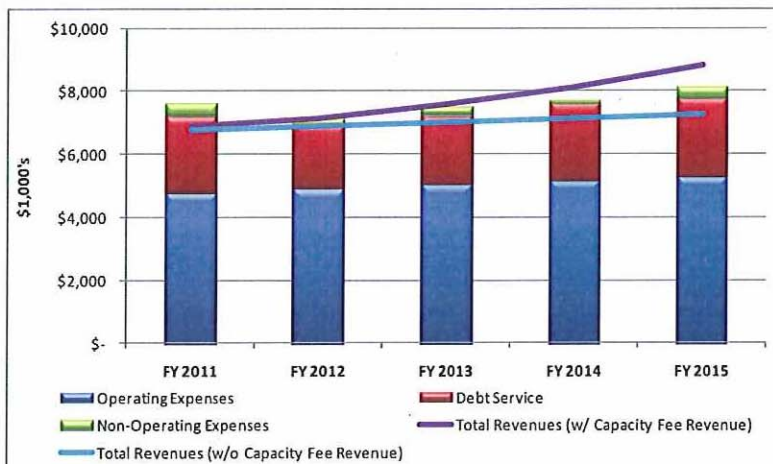
	Current	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
(Effective 10/6/08)						
Sewer Rate Increase:	0.0%	0.0%	0.0%	0.0%	0.0%	3.0%
In County Rates						
Minimum Billing (0 - 2,500 gallons)	\$ 20.00	\$ 20.00	\$ 20.00	\$ 20.00	\$ 20.00	\$ 20.60
Each additional 1,000 gallons	4.72	4.72	5.06	5.39	5.72	5.90
* Each additional 1,000 gallons (over 15,000 gallons)	5.72	5.72	5.72	5.72	5.72	5.90
* Each additional 1,000 gallons (over 15,000 gallons - voluntary restrictions)	7.15	7.15	7.15	7.15	7.15	7.37
* Each additional 1,000 gallons (over 15,000 gallons - mandatory restrictions)	11.44	11.44	11.44	11.44	11.44	11.79
Each additional 1,000 gallons (commercial only)	5.72	5.72	5.72	5.72	5.72	5.90

* Residential only

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Proposed Forecast



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Proposed Forecast Coverage

	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
System Revenues					
Water Revenues					
Water Sales Revenue	\$ 4,759,033	\$ 4,796,511	\$ 4,839,773	\$ 4,887,121	\$ 4,924,089
Miscellaneous Revenue	362,400	454,000	622,000	916,000	1,266,000
Sewer Revenues					
Sewer Sales Revenue	\$ 1,711,337	\$ 1,785,507	\$ 1,861,173	\$ 1,939,542	\$ 2,041,988
Miscellaneous Revenue	66,000	111,000	246,000	366,000	606,000
Total: System Revenues	\$ 6,897,770	\$ 7,147,018	\$ 7,568,946	\$ 8,108,664	\$ 8,838,077
System Expenses					
Water Expenses					
Operating Expenses	\$ 2,399,268	\$ 2,459,250	\$ 2,520,731	\$ 2,583,749	\$ 2,648,343
Debt Service	929,596	448,475	631,177	889,256	946,839
Rate-Funded Capital	404,000	105,000	76,000	100,000	-
Sewer Expenses					
Operating Expenses	\$ 2,409,716	\$ 2,469,959	\$ 2,531,708	\$ 2,595,001	\$ 2,659,876
Debt Service	1,473,715	1,569,150	1,540,366	1,557,343	1,528,560
Rate-Funded Capital	-	100,000	200,000	-	345,000
Total: System Expenses	\$ 7,616,295	\$ 7,151,833	\$ 7,499,982	\$ 7,725,349	\$ 8,128,618
System Surplus / Deficit	\$ (718,525)	\$ (4,815)	\$ 68,965	\$ 383,315	\$ 709,459
Water Surplus / Deficit	1,387,569	2,237,786	2,233,666	2,230,116	2,594,907
Sewer Surplus / Deficit	(2,106,094)	(2,242,602)	(2,164,901)	(1,846,802)	(1,885,448)
Coverage Ratios					
SRF Loan Only - With Capacity Fee Revenue	1.74	1.72	1.99	2.36	2.89
Total Debt - With Capacity Fee Revenue	0.87	1.10	1.16	1.20	1.43
SRF Loan Only - Without Capacity Fee Revenue	1.63	1.51	1.53	1.56	1.60
Total Debt - Without Capacity Fee Revenue	0.81	0.96	0.89	0.79	0.79

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WATER AND SEWER RATE STUDY WORKSHOP

Customer Impacts

	Current	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Combined Customer Impacts						
Residential Customer						
Monthly Usage (kgal)						
0	\$ 40.00	\$ 40.00	\$ 40.00	\$ 40.00	\$ 40.00	\$ 40.60
% Change		0.0%	0.0%	0.0%	0.0%	1.5%
5	\$ 63.60	\$ 63.60	\$ 64.45	\$ 65.28	\$ 66.10	\$ 67.15
% Change		0.0%	1.3%	1.3%	1.3%	1.6%
8	\$ 91.92	\$ 91.92	\$ 93.79	\$ 95.61	\$ 97.42	\$ 99.01
% Change		0.0%	2.0%	1.9%	1.9%	1.6%
15	\$ 159.00	\$ 159.00	\$ 163.25	\$ 169.38	\$ 175.50	\$ 178.35
% Change		0.0%	3.3%	3.6%	3.6%	1.6%
25	\$ 272.40	\$ 272.40	\$ 277.65	\$ 283.78	\$ 289.90	\$ 294.55
% Change		0.0%	1.9%	2.2%	2.2%	1.6%
Commercial Customer						
Monthly Usage (kgal)						
0	\$ 40.00	\$ 40.00	\$ 40.00	\$ 40.00	\$ 40.00	\$ 40.60
% Change		0.0%	0.0%	0.0%	0.0%	1.5%
15	\$ 183.00	\$ 183.00	\$ 183.00	\$ 183.00	\$ 183.00	\$ 185.65
% Change		0.0%	0.0%	0.0%	0.0%	1.6%
50	\$ 583.40	\$ 583.40	\$ 583.40	\$ 583.40	\$ 583.40	\$ 592.55
% Change		0.0%	0.0%	0.0%	0.0%	1.6%
100	\$ 1,155.40	\$ 1,155.40	\$ 1,155.40	\$ 1,155.40	\$ 1,155.40	\$ 1,173.55
% Change		0.0%	0.0%	0.0%	0.0%	1.6%
5,000	\$ 57,211	\$ 57,211	\$ 57,211	\$ 57,211	\$ 57,211	\$ 58,112
% Change		0.0%	0.0%	0.0%	0.0%	1.6%
10,000	\$ 114,411	\$ 114,411	\$ 114,411	\$ 114,411	\$ 114,411	\$ 116,212
% Change		0.0%	0.0%	0.0%	0.0%	1.6%

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Reserve Fund Levels

- While the rate structure is being modified, the County will utilize reserve funds to balance the revenue requirements

	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Total Reserves					
Beginning Balance	\$ 5,856,000	\$ 5,137,475	\$ 5,132,660	\$ 5,201,624	\$ 5,584,939
Transfers out (to fund CIP)	-	-	-	-	(700,000)
Transfers out (Approp. Fund Balance)	-	-	-	-	-
Transfers in	-	-	-	-	-
Operating Surplus / (Deficit)	(718,525)	(4,815)	68,965	383,315	709,459
Ending Balance	\$ 5,137,475	\$ 5,132,660	\$ 5,201,624	\$ 5,584,939	\$ 5,594,398



LINCOLN COUNTY
WATER AND SEWER RATE STUDY WORKSHOP

Ten Year Financial Plan

- Water rates constant after reduction of tier 2 cut-off
- 3% sewer rate increases (2015 – 2020)
 - Translates into a 0.3% to 1.6% on total customer bill annually
 - Moves the total debt coverage without capacity fee revenue closer to 1.0 (ideal target)
 - Provides additional fund balance to allow for cash funding of capital (\$1 million/year annually)
 - Why? – Water is subsidizing sewer



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WATER AND SEWER RATE STUDY WORKSHOP

Additional Fees – Water/Sewer Tap Fees

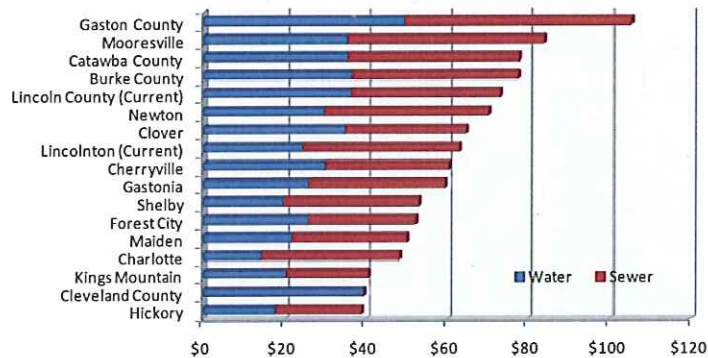
Task	Time to complete tasks (in hours)	Labor Rate Code	Average Labor Rate	Overhead % To Be Applied	Cost of Vehicles/ Materials/ Supplies Used For Task	Per Task	Current Charge	Difference
1.0 Water Tap Fees-3/4"								
Supervisor	1	na	\$ 25.57	37.30%	\$ 12.50	\$ 47.61		
Foreman	2	na	\$ 18.60	37.30%	\$ 26.70	\$ 77.78		
Crew Leader	4	na	\$ 15.60	37.30%	\$ 555.37	\$ 641.05		
Utility Worker	4	na	\$ 12.25	37.30%	\$ 100.00	\$ 167.28		
Equipment Operator	4	na	\$ 11.70	37.30%	\$ 137.55	\$ 201.81		
						\$ 1,135.51	\$ 1,100.00	\$ 35.51
Water Tap Fees-1"								
Supervisor	1	na	\$ 25.57	37.30%	\$ 12.50	\$ 47.61		
Foreman	2	na	\$ 18.60	37.30%	\$ 26.70	\$ 77.78		
Crew Leader	4	na	\$ 15.60	37.30%	\$ 900.00	\$ 985.68		
Utility Worker	4	na	\$ 12.25	37.30%	\$ 100.00	\$ 167.28		
Equipment Operator	4	na	\$ 11.70	37.30%	\$ 210.81	\$ 275.07		
						\$ 1,553.40	\$ 1,350.00	\$ 203.40
Water Tap Fees-2"								
Supervisor	1	na	\$ 25.57	37.30%	\$ 12.50	\$ 47.61		
Foreman	2	na	\$ 18.60	37.30%	\$ 26.70	\$ 77.78		
Crew Leader	4	na	\$ 15.60	37.30%	\$ 3,885.00	\$ 3,970.68		
Utility Worker	4	na	\$ 12.25	37.30%	\$ 100.00	\$ 167.28		
Equipment Operator	4	na	\$ 11.70	37.30%	\$ 210.81	\$ 275.07		
						\$ 4,538.40	\$ 5,100.00	\$ (561.60)
2.0 Sewer taps completed by contractors (no mark-up is included, actual cost of contractors)								
1 1/2" LP Sewer tap						\$ 1,100.00	\$ 1,100.00	\$
2" LP Sewer Tap						\$ 1,650.00	\$ 1,650.00	\$
4" Gravity Tap						\$ 1,875.00	\$ 1,875.00	\$
6" Gravity Tap						\$ 3,000.00	\$ 3,000.00	\$

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Bill Comparison

Residential Bill Comparison
5/8" Meter, 6 kgal



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LINCOLN COUNTY
WATER AND SEWER RATE STUDY WORKSHOP

After lengthy discussion of the water and sewer rate study, Mr. Wood asked all Commissioners to put their questions in written form and submit to him. This item will be placed on the August agenda for the Board's vote.

UPON MOTION by Commissioner Klein, the Board voted to adjourn.

Amy S. Atkins
Clerk to the Board