25,000 gallons per month. If one examines the results of Ms. Swain's comparison, for a customer with both water and wastewater service, the total monthly water and wastewater bill would be 1) lower for NUC than for Intercoastal at the assumed water usages of 3,000, 5,000 and 5,333 gallons per month, 2) slightly higher for NUC than for Intercoastal at the assumed water usage of 10,000 gallons per month, and 3) significantly higher for NUC than for Intercoastal at the assumed water usage of 25,000 gallons per month.

The problem that I have with this comparison is that the only relevant ranges of water usage for comparison are 10,000 gallons per month and higher. Three of the assumed water usages, namely 3,000, 5,000, 5,333 gallons per month show that NUC's rates result in lower monthly bills than would Intercoastal's. However, this is misleading because these ranges of water usage are not relevant for comparison because the water usage for the vast majority of single family residential customers in the Nocatee development will be significantly greater than that.

- Q: How do you know that?
- A: Well, for one thing, NUC's own engineers have prepared usage projections for the phasing of the Nocatee development which show that a single family residential customer is expected to use 350 gallons per day of water. This converts to 10,646 gallons per month (350 gpd x 365 days per year / 12 months per year).
- Q: Do you think that is a reasonable expectation of water usage for a single family residential customer?
- A: Yes, for planning purposes.
- 2 Q: Can it be tested or verified in any way?
 - A: Yes. Intercoastal's service area includes a number of single family residential developments in the western portion of its service area along SR 210, between Highway A1A and the Intracoastal Waterway. I have included Exhibit MB-4 which presents the results of a bill

frequency analysis of Sawmill Lakes, one of these subdivisions. This analysis shows that the actual water usage of single family customers similar to the single family customers that will live in Nocatee is considerably higher than even the 10,646 gallon per month planning estimate used by NUC.

- Q: Would you please explain the results of the analysis shown in Exhibit MB-4?
- A: Exhibit MB-4 presents the graphical results of what is commonly referred to as a bill frequency analysis. This analysis compiles the number of bills issued at 1,000 gallon increments from 0 gallons per month usage to the largest gallons per month for which a bill was issued. For single family residential customers the number of bills issued for usage over 50,000 gallons per month is very small so the graphical representations of a bill frequency analysis are typically limited to the most relevant range of usage, which is what I have done in Exhibit MB-4.

The results of this analysis, as presented in Exhibit MB-4, Page 1 of 3 show that in Sawmill Lakes, 77.5% of all bills issued were for usage greater than 10,000 gallons per month. Furthermore, 50% of all bills issued were for usage greater than 15,000 gallons per month and the average usage is 18,000 gallons per month.

Based upon this analysis and the rate comparisons presented in Exhibit MB-7, Intercoastal's rates will result in lower monthly water and wastewater bills than NUC's rates for over 77.5% of all single family residential customers in Nocatee.

Looked at another way, the results of Exhibit MB-4, Page 2 of 3 show that if one considered the "proper bill comparison range" to be that range which comprised 60% of the bills issued, with 20% falling below that range and 20% falling above that range, that range would be from 9,500 to 26,500 gallons per month.

Based upon this analysis and the rate comparisons presented in Exhibit MB-7, Intercoastal's rates will result in lower monthly water and wastewater bills than NUC's rates for <u>all</u> single

family residential customers with usage in that range.

Exhibit MB-4, Page 3 of 3 shows that if the definition of the "proper bill comparison range" were that range which comprised 80% of the bills issued, with 10% falling below that range and 10% falling above that range, that range would be from 7,000 to 30,000 gallons per month.

Based upon this analysis and the rate comparisons presented in Exhibit MB-7, NUC's rates will result in slightly lower monthly water and wastewater bills than Intercoastal's rates for single family residential customers with usage at the lowest end of that range but the vast majority, approximately 90%, of the customers with usage in that range would have lower bills with Intercoastal's rates than with NUC's rates.

- This is quite different from your original testimony which stated that the average single family residential usage in the Intercoastal service area is 5,333 gallons per month. How do you explain the difference?
- When looked at for the entire Intercoastal service area, the average single family residential usage is 5,333 gallons per month. However, this includes a large number of individually metered condominiums that actually exhibit usage characteristics more like multi-family users. Also, most of these condos are located in the resort area of Intercoastal's service area in the Ponte Vedra Beach and Sawgrass area and include the effects of seasonal occupancy, which always causes an average usage to be lower than if there were year round occupancy. Then, you believe that the usage in Sawmill Lakes is more representative of the usage to be
 - expected from Nocatee?
 - Yes. In fact, I have included in Exhibit MB-5 pictures of three typical single family homes that are located in Sawmill Lakes and the other subdivisions in the western portion of Intercoastal's service area. I believe that based upon what has been presented regarding the nature of the Nocatee development, these homes are representative of the types of homes that

A:

10,000 gallons per month, and 3) Intercoastal's rates are lower than NUC's rates in	al.
relevant ranges of expected water usage from 10,000 gallons per month and higher.	

- Q: Do you have any other concerns regarding Ms. Swain's testimony?
 - Yes. Ms. Swain's Exhibit DDS-12 presents a rate comparison of NUC's rates and Intercoastal's rates, assuming Intercoastal's rates today. Her testimony also indicates that NUC's proposed rates are set based upon year four, when build out is expected to be 80%. However, I have provided extensive testimony that supports the projection that Intercoastal's rates will be significantly lower by 2005 if awarded this service area extension. In fact, the analysis presented in my rebuttal testimony showed that if Intercoastal "stood in NUC's shoes" with regard to their contract with the JEA and implemented NUC's service plan, Intercoastal's rates would result in a monthly water and wastewater bill of \$64.62 in 2005 for 10,000 gallons per month water usage, compared to NUC's rate of \$79.71 per month for the same usage, a rate which is 23.4% higher than Intercoastal's rate.

I believe that the valid comparison would be to compare the effects of NUC's and Intercoastal's rates for ten years from the beginning of the development. Since NUC has not provided testimony as to their projected rates beyond 2005, such a multi year comparison can only be made through 2005. I have prepared such a comparison which is presented in Exhibit MB-7.

Exhibit MB-7 shows that in 2000 Intercoastal's current and projected water and sewer rates are less than NUC's rates for all water usage 10,000 gallons per month and greater, and in 2005 Intercoastal's rates are projected to be significantly lower than NUC's rates for all water usage 10,000 gallons per month and greater.

- Q: Have you analyzed the effects of the changes that Ms. Swain made to NUC's rates based upon the final wholesale service agreement with the JEA?
- A: Yes. It is interesting that the final terms of the JEA agreement result in rates for NUC that

Q:

A:

virtually equal the Intercoastal rates at 10,000 gallons per month of water usage, the amount, as I have testified earlier, that NUC's engineers used in calculating projected water demands. Without the Intercoastal alternative, I wonder if the terms of the final agreement would have had the same result.

Will the terms of the final JEA wholesale service agreement affect your analysis of Intercoastal's rates, and if so how?

Yes. The terms of the JEA agreement would result in a reduction in the Intercoastal rates projected in my prior rebuttal testimony of approximately .5% in the scenario where Intercoastal would implement NUC's wholesale plan of service. However, the terms of the JEA wholesale agreement would obviously not effect Intercoastal's stand alone plan of service, which still would result in rates in 2005 for 10,000 gallons per month of water usage of \$71.84, an amount that is approximately 10% lower than NUC's rates of \$79.71 at the same usage. This fact, that Intercoastal has a viable service plan alternative that is not dependent upon the JEA and which still results in rates that are lower than NUC's proposed rates, should give the rate payers in the Nocatee service area comfort and should be compelling evidence to the Commission that Intercoastal will provide quality utility service to this service area at the lowest possible cost to the rate payer.

Q: Does this conclude your testimony?

A: Yes.

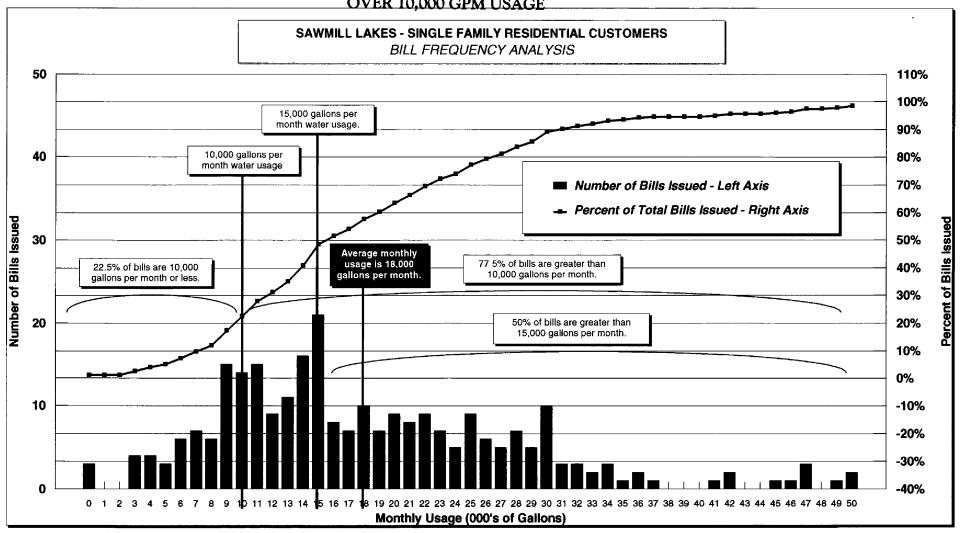
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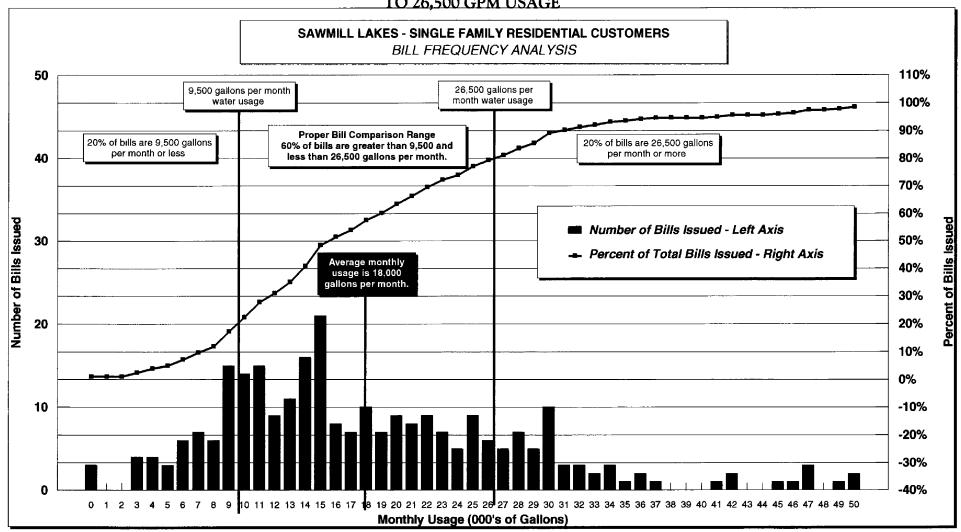
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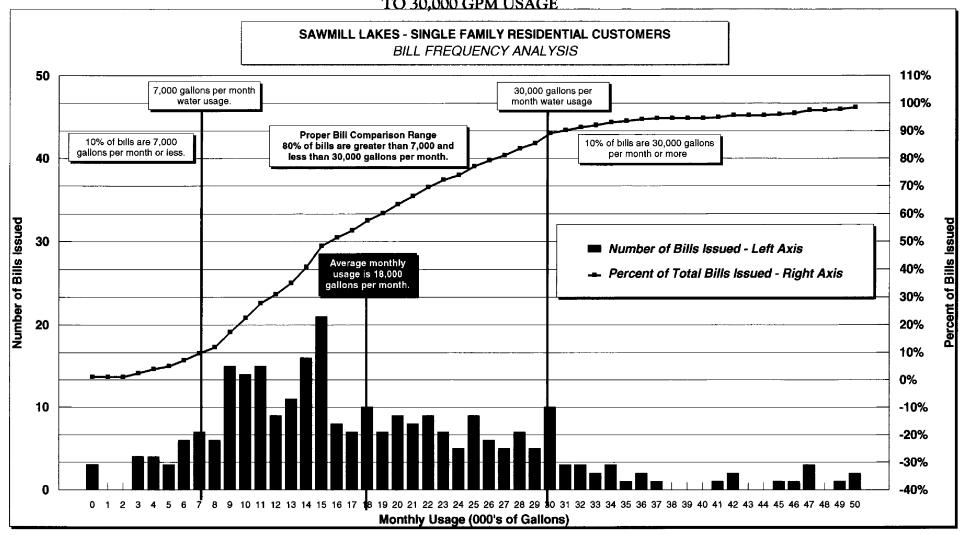
INTERCOASTAL UTILITIES, INC. ANALYSIS OF TYPICAL SINGLE FAMILY RESIDENTIAL WATER USAGE PROFILE COMPARISON RANGE OVER 10,000 GPM USAGE



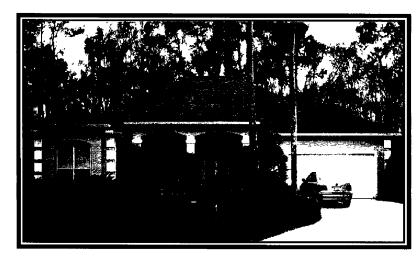
INTERCOASTAL UTILITIES, INC. ANALYSIS OF TYPICAL SINGLE FAMILY RESIDENTIAL WATER USAGE PROFILE COMPARISON RANGE - 9,500 TO 26,500 GPM USAGE



INTERCOASTAL UTILITIES, INC. ANALYSIS OF TYPICAL SINGLE FAMILY RESIDENTIAL WATER USAGE PROFILE COMPARISON RANGE - 7,000 TO 30,000 GPM USAGE



INTERCOASTAL UTILITIES, INC. TYPICAL SINGLE FAMILY HOMES IN THE WESTERN PORTION OF INTERCOASTAL'S SERVICE AREA



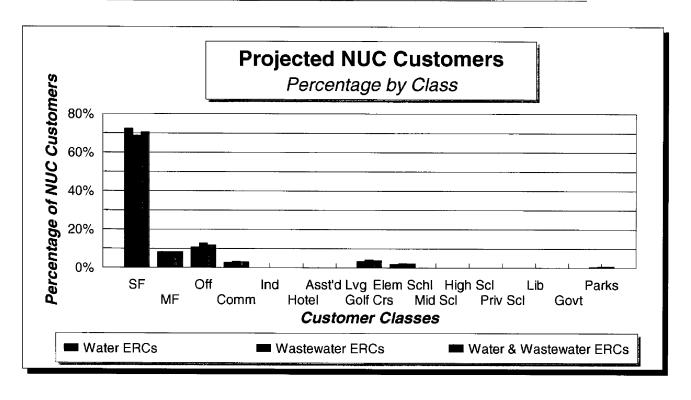




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INTERCOASTAL UTILITIES, INC. SERVICE AREA CASE

ERU PROJECTIONS FROM NUC PHASING SCHEDULE



Average single family residential water usage @ 350 gallons per day is projected to be 10,646 gallons per month

SOURCE: DATA; NUC ANALYSIS; BURTON & ASSOCIATES

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INTERCOASTAL UTILITIES, INC. SERVICE AREA CASE

ERU PROJECTIONS FROM NUC PHASING SCHEDULE

Water	350 gpd per ERC	•		
	Phase 1		Phase 2	
	ERCs	% of Phase 1	ERCs	% of Phase 2
Single Family	1,500	72.33%	2,000	62.08%
Multifamily	171	8.27%	514	15.96%
Office Space	223	10.77%	392	12.18%
Commercial	57	2.76%	86	2.66%
Industrial	0	0.00%	36	1.11%
Hotel	0	0.00%	0	0.00%
Assisted Living	0	0.00%	64	2.00%
Golfcourse	71	3.44%	71	2.22%
Elementary School	40	1.93%	40	1.24%
Middle School	0	0.00%	0	0.00%
High School	0	0.00%	0	0.00%
Private School	0	0.00%	0	0.00%
Library	0	0.00%	0	0.00%
County Annex	0	0.00%	0	0.00%
Parks	11	0.51%	18	0.55%
Total	2,074	100.00%	3,222	100.00%

Wastewater 280 gpd per ERC

	Phase 1	07 - 4 10 4	Phase 2	0/ (5)
	ERCs	% of Phase 1	ERCs	% of Phase 2
Single Family	1,500	68.75%	2,000	58.48%
Multifamily	179	8.18%	536	15.67%
Office Space	279	12.80%	490	14.34%
Commercial	71	3.27%	107	3.13%
Industrial	0	0.00%	45	1.31%
Hotel	0	0.00%	0	0.00%
Assisted Living	0	0.00%	80	2.35%
Golfcourse	89	4.09%	89	2.61%
Elementary School	50	2.29%	50	1.46%
Middle School	0	0.00%	0	0.00%
High School	0	0.00%	0	0.00%
Private School	0	0.00%	0	0.00%
Library	0	0.00%	0	0.00%
County Annex	0	0.00%	0	0.00%
Parks	13	0.61%	22	0.65%
Total	2,182	100.00%	3,420	100.00%

SOURCE: DATA; NUC ANALYSIS; BURTON & ASSOCIATES

INTERCOASTAL UTILITIES, INC. SERVICE AREA CASE

NUC Phasing 10/18/99

			Water		Wastewater		Reclaimed Water	
Phase 1	Unit	Value	Usage Rate	Total	Usage Rate	Total	Usage Rate	Total
Single Family	gpd	1,500	350	525,000	280	420,000	224.75	337,125
Multifamily	gpd	200	300	60,000	250	50,000	66.67	13,334
Office Space	gpd/sqft	521,200	0 15	78,180	0.15	78,180	0.1	52,120
Commercial	gpd/sqft	100,000	02	20,000	0.2	20,000	0.1	10,000
Industrial	gpd/sqft	0	0.1	0	0.1	0	0.1	0
Hotel	gpd/room	0	125	0	125	0	1,000	62,000
Assisted Living	gpd/bed	. 0	125	0	125	0	1,000	62,000
Golfcourse	gpd/acre	200	25,000	25,000	25,000	25,000	3,250	650,000
Elementary School	gpd/student	700	20	14,000	20	14,000	1,000	20,000
Middle School	gpd/student	0	25	0	25	0	1,000	0
High School	gpd/student	0	25	0	25	0	1,000	0
Private School	gpd/student	0	20	0	20	0	1,000	0
Library	gpd/sqft	0	0 15	0	0 15	0	0.1	0
County Annex	gpd/sqft	0	0 15	0	0 15	0	0.1	0
Parks	gpd/acre	37	100	3,700	100	3,700	1,000	37,000
			Wa	ter	Wastewater		Reclaimed Water	
Phase 2	Unit	Value	Usage Rate	Total	Usage Rate	Tota!	Usage Rate	Total
Single Family	gpd	2,000	350	700,000	280	560,000	224 75	449,500
Multifamily	gpd	600	300	180,000	250	150,000	66.67	40,002
Office Space	gpd/sqft	915,500	0 15	137,325	0 15	137,325	0.1	91,550
Commercial	gpd/sqft	150,000	02	30,000	0.2	30,000	0.1	15,000
Industrial	gpd/sqft	125000	0.1	12,500	0 1	12,500	0.1	12,500
Hotel	gpd/room	0	125	0	125	0	1,000	62,000
Assisted Living	gpd/bed	180	125	22,500	125	22,500	1,000	62,000
Golfcourse	gpd/acre	0	25,000	25,000	25,000	25,000	3,250	0
Elementary School	gpd/student	700	20	14,000	20	14,000	1,000	20,000
Middle School	gpd/student	0	25	0	25	0	1,000	0
High School	gpd/student	0	25	0	25	0	1,000	0
Private School	gpd/student	0	20	0	20	0	1,000	0
Library	gpd/sqft	0	0 15	0	0.15	0	0.1	0
County Annex	gpd/sqft	0	0.15	0	0.15	0	0.1	0
Parks	gpd/acre	62	100	6,200	100	6.200	1.000	62,000

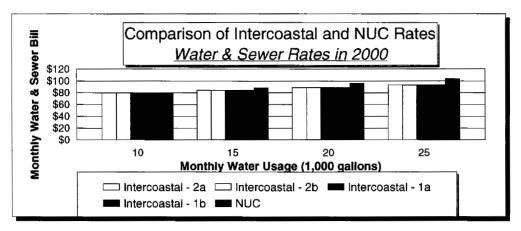
SOURCE: NUC

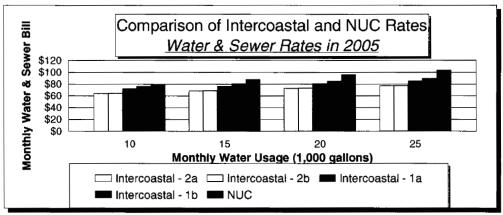
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INTERCOASTAL UTILITIES, INC. SERVICE AREA CASE

COMPARISON OF INTERCOASTAL AND NUC RATES





Scenario Description			
Intercoastal - 1a	Intercoastal Utilities - "Assume Implementation of Intercoastal's Stand Alone Service Plan" with 100% Debt / 0% Equity		
Intercoastal - 1b	Intercoastal Utilities - "Assume Implementation of Intercoastal's Stand Alone Service Plan" with 60% Debt / 40% Equity		
Intercoastal - 2a	Intercoastal Utilities- "Assume Implementation of NUC's JEA Wholesale Service Plan" with 100% Debt / 0% Equity		
Intercoastal - 2b	Intercoastal Utilities- "Assume Implementation of NUC's JEA Wholesale Service Plan" with 60% Debt / 40% Equity		
NUC	NUC - JEA Wholesale Service Plan		

SOURCE: DATA; NUC & INTERCOASTAL ANALYSIS; BURTON & ASSOCIATES

INTERCOASTAL UTILITIES RECLAIMED WATER SYSTEM

COMPARISON OF AVERAGE WATER AND WASTEWATER BILLS FOR INTERCOASTAL AND NUC

		<u>10</u>	TAL WATER BILL - 20	000				
	SELECTED SCENARIOS							
USAGE	ICU - STAND ALONE - 100% DEBT / 0% EQUITY	ICU - STAND ALONE - 60% DEBT / 40% EQUITY	ICU - NUC PLAN - 100% DEBT / 0% EQUITY	ICU - NUC PLAN - 60% DEBT / 40% EQUITY	NUC			
10,000	\$15.81	\$15.81	\$15.81		\$23 80			
15,000	\$20 26	\$20 26	\$20 26		\$31 70			
20,000	\$24.71	\$24 71	\$24.71	\$24.71	\$39.60			
25,000	\$29.16	\$29 16	\$29.16	\$29.16	\$47.50			
		<u>TO</u>	TAL SEWER BILL - 20	000				
		SI	ELECTED SCENARIO	s				
USAGE	ICU - STAND ALONE - 100% DEBT / 0% EQUITY	ICU - STAND ALONE - 60% DEBT / 40% EQUITY	ICU - NUC PLAN - 100% DEBT / 0% EQUITY	ICU - NUC PLAN - 60% DEBT / 40% EQUITY	NUC			
10,000	\$63,89	\$63 89	\$63.89		\$55 91			
15,000	\$63.89	\$63.89	\$63.89	\$63.89	\$55 91			
20,000	\$63.89	\$63 89	\$63.89	\$63.89	\$55 91			
25,000	\$63.89	\$63 89	\$63 89	\$63.89	\$55 91			
		TOTAL W	ATER AND SEWER B	ILL - 2000				
		SI	ELECTED SCENARIO	s				
USAGE	ICU - STAND ALONE - 100% DEBT / 0% EQUITY	ICU - STAND ALONE - 60% DEBT / 40% EQUITY	ICU - NUC PLAN - 100% DEBT / 0% EQUITY	ICU - NUC PLAN - 60% DEBT / 40% EQUITY	NUC			
10,000	\$79.70	\$79.70	, \$79.70	\$79.70	\$79.71			
15,000	\$84.15	\$84.15	\$84.15	\$84.15	\$87.61			
20,000	\$88.60	\$88.60	\$88.60	\$88.60	\$95.51			
25,000	\$93.05	\$93.05	\$93.05	\$93.05	\$103.41			

2005

		<u>10</u>	TAL WATER BILL - 20	105				
	OF LECTED SCENADIOS							
-	SELECTED SCENARIOS							
	100% DEBT / 0%	ICU - STAND ALONE -	ICU - NUC PLAN -	IOU ARIO DI ANI GOO				
USAGE	EQUITY	60% DEBT / 40% EQUITY	100% DEBT / 0% EQUITY	ICU - NUC PLAN - 60% DEBT / 40% EQUITY	NUC			
10.000	\$15.81	\$15.81	\$15.68		\$23.80			
15,000	\$20 26	\$20 26	\$20 09		\$31.70			
20,000	\$24 71	\$24 71	\$24 51	\$24 63	\$39.60			
25,000	\$29 16	\$29 16	\$28 92		\$47 50			
		<u>TO</u> -	FAL SEWER BILL - 20	<u>105</u>				
		SI	ELECTED SCENARIO	S				
	ICU - STAND ALONE -	ICU - STAND ALONE -	ICU - NUC PLAN -					
	100% DEBT / 0%	60% DEBT / 40%	100% DEBT / 0%	ICU - NUC PLAN - 60%				
USAGE	EQUITY	EQUITY	EQUITY	DEBT / 40% EQUITY	NUC			
10,000	\$56 03	\$60 31	\$48 36	\$48 59	\$55.91			
15,000	\$56.03	\$60 31	\$48.36	\$48.59	\$55 91			
20,000	\$56 03	\$60 31	\$48.36	\$48.59	\$55 91			
25,000	\$56.03	\$60 31	\$48.36	\$48.59	\$55 91			
		TOTAL W	ATER AND SEWER B	ILL - 2005				
		Si	ELECTED SCENARIO	S				
		ICU - STAND ALONE -	ICU - NUC PLAN -					
	100% DEBT / 0%	60% DEBT / 40%	100% DEBT / 0%	ICU - NUC PLAN - 60%				
USAGE	EQUITY	EQUITY	EQUITY	DEBT / 40% EQUITY	NUC			
10,000	\$71.84	\$76.12	\$64.04	7 - 1	\$79.71			
15,000	\$76.29	\$80.57	\$68,45		\$87.61			
20,000	\$80.74	\$85.02	\$72.87		\$95.51			
25,000	\$85.19	\$89.47	\$77.28	\$77.65	\$103.41			