

REBUTTAL TESTIMONY

of

Christopher Boggs

Rates Department

Financial Analysis Division

Illinois Commerce Commission

Northern Hills Water and Sewer Company

Proposed General Increase in Water and Sewer Rates

Docket No. 10-0298

September 2, 2010

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1 **Q. Please state your name and business address.**

2 A. My name is Christopher Boggs, and my business address is 527 E. Capitol  
3 Avenue, Springfield, Illinois 62701.

4

5 **Q. Are you the same Mr. Boggs that previously filed testimony in this**  
6 **proceeding?**

7 A. Yes, I am.

8

9 **Q. What is the purpose of your rebuttal testimony?**

10 A. The purpose of my rebuttal testimony is to: (1) provide revised proposed water  
11 and sewer rates and associated schedules that reflect Staff's revised revenue  
12 requirement (ICC Staff Exhibit 6.0, Schedules 6.1 W and S); (2) discuss whether  
13 Northern Hills Water and Sewer Company ("Northern Hills" or "Company") is in  
14 compliance with Sections 8-306(h) and 8-306(i) of the Public Utilities Act ("Act");  
15 and (3) recommend that the Company provide in its surrebuttal testimony  
16 updated tariff sheets that reflect its positions in the current phase of this  
17 proceeding.

18

19 **Q. Are you sponsoring any schedules or attachments with your testimony?**

20 A. Yes, I have attached the following schedules:

21 Schedule 8.1 - Comparison of Company Proposed and Staff Proposed Water  
22 Rates

23

24 Schedule 8.2 - Comparison of Company Proposed and Staff Proposed Sewer  
25 Rates

26

27 Schedules 8.3, 8.4 and 8.5 - Typical Bill Comparison

28

29 **Proposed Rates**

30 **Q. Please describe how you developed your recommended rates in this case.**

31 A. As previously discussed in my direct testimony, I have accepted the Company's  
32 proposed rate structure, but I have made one key revision. The Company is  
33 proposing rates based on its revenue requirement. My proposed rates are  
34 designed to recover the revenue requirement proposed by Staff as presented in  
35 the testimony of Staff witness Ostrander (ICC Staff Exhibit 6.0, Schedule 6.1 W  
36 and Schedule 6.1 S.)

37

38 **Q. Please explain how you calculated your proposed rates.**

39 A. I calculated my proposed rates by multiplying the ratio of Staff's proposed  
40 revenue requirement to the Company's proposed revenue requirement across-  
41 the-board, to the Company's proposed customer charges (water & sewer) and  
42 usage charges (water). My proposed rate design reflects Staff's proposed  
43 revenue requirement shown in Staff Ex. 6.0, Schedule 6.1 W and Schedule 6.1  
44 S. Staff's proposed revenue requirement of \$ 83,552 is approximately 19.42%  
45 less than the Company's proposed revenue requirement of \$ 103,686<sup>1</sup> for water  
46 service and Staff's proposed revenue requirement of \$ 211,933 is approximately  
47 15.58% less than the \$ 251,051<sup>2</sup> for sewer service.

48

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<sup>1</sup> Service Revenues – Water (NH Schedule E from its initial filing.)

<sup>2</sup> Service Revenues – Sewer (NH Schedule E from its initial filing.)

49 **Q. Have you prepared a comparison of the rates you recommend versus those**  
50 **proposed by the Company?**

51 A. Yes, that comparison is presented in Schedules 8.1 and 8.2. The Company  
52 information in Schedules 8.1 and 8.2 was primarily provided in the Company's  
53 Schedule E. Schedules 8.1 and 8.2 compare the Company's proposed rates  
54 based on its revenue requirement versus my proposed rates based on Staff's  
55 revenue requirement.

56  
57 **Q. What is your recommendation if the Commission adopts a revenue**  
58 **requirement other than that proposed by Staff?**

59 A. If the Commission decides to adopt a revenue requirement other than that  
60 proposed by Staff, the customer charges and usage charges I propose, as  
61 shown on Schedules 8.1 and 8.2, should be adjusted by a uniform percentage to  
62 recover the revenue requirement adopted in the Final Order.

63

64 **Bill Impacts**

65 **Q. Have you developed a typical bill comparison to illustrate the impact of**  
66 **Company and Staff proposed water and sewer rates?**

67 A. Yes, I have. The results are illustrated in Schedules 8.3, 8.4 and 8.5.

68

69 **Q. Does the typical bill comparison table show that customers may**  
70 **experience rate shock?**

71 A. Yes. As illustrated in Schedule 8.4, the monthly bill to a typical customer with  
72 usage of 4,494 gallons<sup>3</sup> shows an increase of approximately 275% (\$123.96)  
73 under the Company's proposed combined water and sewer rates. Also, as  
74 illustrated in Schedule 8.3, the monthly bill to a typical customer with usage of  
75 4,494 gallons shows a combined increase of 200% (\$90.21) (for 5/8" meter)  
76 under my proposed water and sewer rates. The customers of Northern Hills may  
77 experience rate shock under the Company's proposal, while the rates that I  
78 suggest, based on Staff's proposed revenue requirement, are noticeably lower.  
79 Although an average increase of 200%<sup>4</sup> (for 5/8" meter) might be considered  
80 steep in some circumstances, it is considerably lower than what is being  
81 proposed by the Company, and the increase is necessary in order for the  
82 Company to recover its revenue requirement.

83

84 **Low Usage Sewer Rate**

85

86 **Q. What is the starting point for your discussion of the low usage sewer rate?**

87 A. I begin with the language of 220 ILCS 5/8-306(h) of the Act pertaining to this  
88 issue. In 2006, the Act was amended by adding Section 8-306 concerning  
89 "Special Provisions Relating to Water and Sewer Utilities." Section 8-306(h)  
90 requires that each public utility providing water and sewer service must establish  
91 a unit sewer rate for customers using less than 1,000 gallons in a billing period.  
92 Sec. 8-306(h) of the Act states:

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<sup>3</sup> According to its Public Notice, the Company illustrated the impact of its rate increase based on an assumed average monthly consumption of 4,494 gallons.

<sup>4</sup> ICC Exhibit No. 8.0, Schedule 8.3.

93 Water and sewer utilities; low usage. Each public utility that  
94 provides water and sewer service must establish a unit sewer rate,  
95 subject to review by the Commission, that applies only to those  
96 customers who use less than 1,000 gallons of water in any billing  
97 period.  
98

99 **Q. Is the Company's rebuttal rate design in compliance with 220 ILCS 5/8-**  
100 **306(h) of the Act?**

101 A. Yes. The Company had failed to comply with this Section of the Act in its initial  
102 filing. However, the Company revised its proposed sewer rate design to  
103 incorporate the requirements of 220 ILCS 5/8-306(h) in its rebuttal testimony.  
104 The Company proposed a separate sewer rate of \$96.58 for customers with  
105 usage less than 1,000 gallons per billing period. The Company's proposed low  
106 usage sewer rate is exactly \$4.04 less than rates for similar customers using at  
107 least 1,000 gallons of water in a billing period.

108

109 **Q. How did the Company calculate its proposed low usage rate?**

110 A. In response to Staff DR CB 3.01, the Company provided supporting workpapers  
111 in which it showed how the proposed low usage sewer rate was calculated. In  
112 essence, the first step was to calculate the 2009 proportion of customers with  
113 less than 1,000 gallons of consumption per billing period (approximately 8.57% of  
114 customers or 180.14 billing units) versus the 2009 proportion of customers with  
115 more than 1,000 gallons of consumption per billing period (approximately 91.43%  
116 of customers or 1,921.86 billing units). Next, the means of allocating the costs  
117 associated with the low usage sewer rate versus the regular monthly sewer rate

118 was based on the share of revenue increase<sup>5</sup> associated with low usage  
119 customers compared to the share of revenue increase associated with all other  
120 customers. This same methodology was used in the Company's recent Galena  
121 Territory rate case (Docket No. 10-0280) and has been recommended for  
122 approval by Staff in that case.

123

124 **Q. Do you agree with the Company's methodology to develop the proposed**  
125 **low usage rate?**

126 A. Yes. A flat rate encompasses all customers and all uses in a billing period, from  
127 a customer who has zero usage, such as customers who may be seasonal  
128 customers, to customers who are average or large users. This means that large  
129 users are likely paying proportionally less, and low users are likely paying  
130 proportionally more relative to their usage. Thus, it is logical to conclude that the  
131 design of a rate for a low use customer – less than 1,000 gallons in a month –  
132 should result in a lower rate. In this instance, Northern Hills has proffered a  
133 methodology to calculate a low usage sewer rate that appears to be reasonably  
134 discounted.

135

136 Based on the information provided, I find that the Company's methodology to  
137 calculate the proposed low usage sewer rate of \$96.58 is reasonable. However,  
138 where the Company is proposing sewer rates based on its revenue requirement,  
139 my proposed sewer rates are designed to recover the revenue requirement

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<sup>5</sup> Per Company Rebuttal (\$210,776) - Per Company Original Pro Forma (\$54,018) = Increase of \$156,758.

140 proposed by Staff. Therefore, the Company's proposed low usage sewer rate of  
141 \$96.58 and a separate \$100.62 sewer rate for all other customers using at least  
142 1,000 gallons of water in a billing period were incorporated into Staff's rate  
143 design and adjusted so that they conform to Staff's revised revenue requirement.

144

145 As a result, Staff proposes the following sewer rates: a low usage sewer rate of  
146 \$97.06 and a separate \$100.81 sewer rate for all other customers using at least  
147 1,000 gallons of water in a billing period.

148

149 **Q. What is your recommendation regarding Section 8-306(h)?**

150 A. The Company provided satisfactory support for its position for the calculation of  
151 the low usage sewer rate. Therefore, based on my review of the information  
152 provided, I recommend that Staff's proposed low usage sewer rate of \$97.06 and  
153 a separate \$100.81 sewer rate for all other customers using at least 1,000  
154 gallons of water in a billing period should be accepted.

155

156 **Q. Is there any other issue with the Company's proposed rates?**

157 A. Yes, there is. As recommended in my Direct Testimony (Staff Ex. 4.0, p. 8), the  
158 Company did not propose rates that comply with 220 ILCS 5/8-306(i) of the Act.  
159 Northern Hills' initial rate case filing also did not address Section 8-306(i) or the  
160 rate it requires. Sec. 8-306(i) of the Act states:

161 Water and sewer utilities; separate meters. Each public utility that  
162 provides water and sewer service must offer separate rates for  
163 water and sewer service to any commercial or residential customer  
164 who uses separate meters to measure each of those services. In

165 order for the separate rate to apply, a combination of meters must  
166 be used to measure the amount of water that reaches the sewer  
167 system and the amount of water that does not reach the sewer  
168 system. (220 ILCS 5/8-306(i)  
169

170 In response to Staff DR CB 2.03, the Company stated that, “[t]he Company does  
171 not plan to propose separate water and sewer rates for customers who use  
172 separate meters to measure each of those services. The Company does not  
173 currently have any customers who use a separate meter to measure each  
174 service.”

175

176 **Q. What is your recommendation with regard to Section 8-406(i)?**

177 A. Although I am not a lawyer, Section 8-306(i) of the Act mandates that the  
178 Company “must offer separate rates for water and sewer service to any  
179 commercial or residential customer who uses separate meters to measure each  
180 of those services.” However, without a rate that complies with this Section of the  
181 Act, any customer who may install a separate meter will be deprived of the  
182 opportunity to have a lower sewer bill for the amount of water that does not flow  
183 through the sewer system.

184

185 Since there is nothing that precludes the Company from developing and offering  
186 such a distinction in rates in this case, I recommend that the Company submit  
187 rates to comply with Section 8-306(i) in its surrebuttal testimony even if there are  
188 no customers utilizing separate meters for water and sewer service, as it may  
189 potentially deprive customers of lower sewer bills in the future.

190

191 **Q. Does this conclude your rebuttal testimony?**

192 A. Yes, it does.

Northern Hills Water and Sewer Company  
 Comparison of Company Proposed and Staff Proposed  
 Water Rates

<b>All Customer Classifications</b>								
Line No.	Class/Description (A)	Sales 1,000 Gallons (B)	Company Proposed Total Revenue (C)	% of Revenue to Total (D)	Staff Proposed Total Revenue (E)	% of Revenue to Total (F)	Dollar Difference [(E)-(C)] (G)	Total Revenue % Difference [(G)/(C)] (H)
1	Water Residential	9,239	\$ 103,672.00	99.66%	\$ 83,549.00	99.57%	\$ (20,123.00)	-19.41%
2	Total Water Sales	9,239	\$ 103,672.00	99.66%	\$ 83,549.00	99.57%	\$ (20,123.00)	-19.41%
3	Other Operating Revenues		\$ 358.00	0.34%	358	0.43%	0	0.00%
4	Total Operating Revenues		<u>\$ 104,030.00</u>	<u>100.00%</u>	<u>\$ 83,907.00</u>	<u>100.00%</u>	<u>\$ (20,123.00)</u>	<u>-19.34%</u>

Northern Hills Water and Sewer Company  
 Comparison of Company Proposed and Staff Proposed  
 Water Rates

<u>Water Residential</u>		Customer Meter Billings (B)	Proposed Sales 1,000 Gallons (C)	Company Proposed Rates (D)	Company Proposed Total Revenue (E)	Proposed Sales 1,000 Gallons (F)	Staff Proposed Rates (G)	Staff Proposed Total Revenue (H)
Line No.	Description (A)							
<b>Customer Charges:</b>								
1	5/8 inch	2,056.00		\$ 14.43	\$ 29,668.00		\$ 11.63	\$ 23,911.00
<b>Usage Charges:</b>								
2	5/8 inch		9,239.00	\$ 8.0100	\$ 74,004.00	9,239.00	\$ 6.4550	\$ 59,638.00
3	Residential Total	<u>2,056.00</u>	<u>9,239.00</u>		<u>103,672.00</u>	<u>9,239.00</u>		<u>83,549.00</u>

Source: Company Schedule E  
 ICC Staff Exhibit 6.0 , Schedule 6.1 W

Northern Hills Water and Sewer Company  
 Comparison of Company Proposed and Staff Proposed  
 Water Rates

<u>Other Operating Revenues</u>		Customer Meter Billings (B)	Proposed Sales 1,000 Gallons (C)	Company Proposed Rates (D)	Company Proposed Total Revenue (E)	Proposed Sales 1,000 Gallons (F)	Staff Proposed Rates (G)	Staff Proposed Total Revenue (H)
Line No.	Description (A)							
1	Other Operating Revenues Total	-	-		<u>\$ 358.00</u>	-		<u>\$ 358.00</u>

**Source:** Company Schedule E  
 ICC Staff Exhibit 6.0 , Schedule 6.1 W

Northern Hills Water and Sewer Company  
Comparison of Company Proposed and Staff Proposed  
Water Rates

Line No.	(A)	(B)	(C)
1		<b>Company</b>	<b>Staff</b>
2	Proposed Water Revenues	\$ 103,672.00	\$ 83,552.00
3	Ratio (C2/B2)	<b>80.60%</b>	
4	Proposed Sewer Revenues	\$ 251,063.00	\$ 211,903.00
5	Ratio (C4/B4)	<b>84.40%</b>	

Source: Company Schedule E  
ICC Staff Exhibit 6.0 , Schedule 6.1 W

Northern Hills Water and Sewer Company  
 Comparison of Company Proposed and Staff Proposed  
 Sewer Rates

<b>All Customer Classifications</b>								
Line No.	Class/Description (A)	Sales 1,000 Gallons (B)	Company Proposed Total Revenue (C)	% of Revenue to Total (D)	Staff Proposed Total Revenue (E)	% of Revenue to Total (F)	Dollar Difference [(E)-(C)] (G)	Total Revenue % Difference [(G)/(C)] (H)
1	Sewer Residential	0	\$ 251,063.00	99.81%	\$ 211,903.00	99.77%	\$ (39,160.00)	-15.60%
2	Other Operating Revenues		<u>\$ 481.00</u>	<u>0.19%</u>	<u>\$ 481.00</u>	<u>0.23%</u>	<u>0</u>	<u>0.00%</u>
3	Total Operating Revenues		<u>\$ 251,544.00</u>	<u>100.00%</u>	<u>\$ 212,384.00</u>	<u>100.00%</u>	<u>\$ (39,160.00)</u>	<u>-15.57%</u>

<u>Sewer</u>								
Line No.	Class/ Description (A)	Customer Meter Billings (B)	Proposed Sales 1,000 Gallons (C)	Company Proposed Rates (D)	Company Proposed Total Revenue (E)	Proposed Sales 1,000 Gallons (F)	Staff Proposed Rates (G)	Staff Proposed Total Revenue (H)
1	<b>Sewer Residential</b>							
2	Usage below 1,000 Gallons				\$ -		\$ 97.06	\$ -
3	Usage over 1,000 Gallons	2,102.00		\$ 119.44	\$ 251,063.00		\$ 100.81	\$ 211,903.00
4	<b>Total Sewer Sales</b>	<u>2,102.00</u>	-		<u>251,063.00</u>	-		<u>211,903.00</u>

Source: Company Schedule E  
 ICC Staff Exhibit 6.0 , Schedule 6.1 S

Northern Hills Water and Sewer Company  
 Comparison of Company Proposed and Staff Proposed  
 Sewer Rates

<b><u>Other Operating Revenues</u></b>		Customer Meter Billings (B)	Proposed Sales 1,000 Gallons (C)	Company Proposed Rates (D)	Company Proposed Total Revenue (E)	Proposed Sales 1,000 Gallons (F)	Staff Proposed Rates (G)	Staff Proposed Total Revenue (H)
Line No.	Description (A)							
1	Other Operating Revenues Total	-	-		<u>\$ 481.00</u>	-		<u>\$ 481.00</u>

**Source:** Company Schedule E  
 ICC Staff Exhibit 6.0 , Schedule 6.1 S

Northern Hills Water and Sewer Company  
 Bill Impact Comparison of Current Rates and Staff Proposed Rates

Northern Hills 5/8" meter size

5/8" Usage Charge Comparison

	Present Rates		Staff Proposed Rates		Percent Change
	Usage	Amount	Usage	Amount	
Per 1,000 Gallons		\$ 3.16		\$ 6.065	91.93%

5/8" Monthly Meter Customer Charge Comparison

Fixed charges per month	Water	\$ 5.55		\$ 10.91	96.58%
	Sewer	\$ 25.70	< 1,000 gal	\$ 93.73	264.71%
			>= 1,000 gal	\$ 97.77	280.43%

5/8" Bill Comparison

Level of Usage (1,000 Gal)	Current Monthly Bill	Staff Proposed Monthly Bill	Dollar Change	Percent Difference
0.000	\$ 31.25	\$ 104.64	\$ 73.39	235%
1.000	\$ 34.41	\$ 114.75	\$ 80.34	233%
1.200	\$ 35.04	\$ 115.96	\$ 80.92	231%
1.400	\$ 35.67	\$ 117.17	\$ 81.50	228%
1.600	\$ 36.31	\$ 118.38	\$ 82.08	226%
1.800	\$ 36.94	\$ 119.60	\$ 82.66	224%
2.000	\$ 37.57	\$ 120.81	\$ 83.24	222%
2.200	\$ 38.20	\$ 122.02	\$ 83.82	219%
2.400	\$ 38.83	\$ 123.24	\$ 84.40	217%
2.600	\$ 39.47	\$ 124.45	\$ 84.98	215%
2.800	\$ 40.10	\$ 125.66	\$ 85.56	213%
3.000	\$ 40.73	\$ 126.88	\$ 86.15	212%
3.200	\$ 41.36	\$ 128.09	\$ 86.73	210%
3.400	\$ 41.99	\$ 129.30	\$ 87.31	208%
3.600	\$ 42.63	\$ 130.51	\$ 87.89	206%
3.800	\$ 43.26	\$ 131.73	\$ 88.47	205%
4.000	\$ 43.89	\$ 132.94	\$ 89.05	203%
4.200	\$ 44.52	\$ 134.15	\$ 89.63	201%
* 4.400	\$ 45.15	\$ 135.37	\$ 90.21	200%
4.600	\$ 45.79	\$ 136.58	\$ 90.79	198%
4.800	\$ 46.42	\$ 137.79	\$ 91.37	197%
5.000	\$ 47.05	\$ 139.01	\$ 91.96	195%
5.200	\$ 47.68	\$ 140.22	\$ 92.54	194%
5.400	\$ 48.31	\$ 141.43	\$ 93.12	193%
5.600	\$ 48.95	\$ 142.64	\$ 93.70	191%
5.800	\$ 49.58	\$ 143.86	\$ 94.28	190%
6.000	\$ 50.21	\$ 145.07	\$ 94.86	189%
6.200	\$ 50.84	\$ 146.28	\$ 95.44	188%
6.400	\$ 51.47	\$ 147.50	\$ 96.02	187%
6.600	\$ 52.11	\$ 148.71	\$ 96.60	185%
6.800	\$ 52.74	\$ 149.92	\$ 97.18	184%
7.000	\$ 53.37	\$ 151.14	\$ 97.77	183%
7.200	\$ 54.00	\$ 152.35	\$ 98.35	182%
7.400	\$ 54.63	\$ 153.56	\$ 98.93	181%
7.600	\$ 55.27	\$ 154.77	\$ 99.51	180%
7.800	\$ 55.90	\$ 155.99	\$ 100.09	179%
8.000	\$ 56.53	\$ 157.20	\$ 100.67	178%
Average			\$ 90.04	202%

\* Denotes avg. consumption

Northern Hills Water and Sewer Company  
 Bill Impact Comparison of Current Rates and Company  
 Proposed Rates

Northern Hills 5/8" meter size

5/8" Usage Charge Comparison

	Present Rates		Company Proposed Rates		Percent Change
	Usage	Amount	Usage	Amount	
Per 1,000 Gallons		\$ 3.16	Per 1,000 Gallons	\$ 8.01	153.48%

5/8" Monthly Meter Customer Charge Comparison

Fixed charges per month	Water	\$ 5.55		\$ 14.43	160.00%
	Sewer	\$ 25.70	< 1,000 gal	\$ 119.44	364.75%
			>= 1,000 gal	\$ 119.44	

5/8" Bill Comparison

Level of Usage (1,000 Gal)	Current Monthly Bill	Company Proposed Monthly Bill	Dollar Change	Percent Difference
0.000	\$ 31.25	\$ 133.87	\$ 102.62	328%
1.000	\$ 34.41	\$ 141.88	\$ 107.47	312%
1.200	\$ 35.04	\$ 143.48	\$ 108.44	309%
1.400	\$ 35.67	\$ 145.08	\$ 109.41	307%
1.600	\$ 36.31	\$ 146.69	\$ 110.38	304%
1.800	\$ 36.94	\$ 148.29	\$ 111.35	301%
2.000	\$ 37.57	\$ 149.89	\$ 112.32	299%
2.200	\$ 38.20	\$ 151.49	\$ 113.29	297%
2.400	\$ 38.83	\$ 153.09	\$ 114.26	294%
2.600	\$ 39.47	\$ 154.70	\$ 115.23	292%
2.800	\$ 40.10	\$ 156.30	\$ 116.20	290%
3.000	\$ 40.73	\$ 157.90	\$ 117.17	288%
3.200	\$ 41.36	\$ 159.50	\$ 118.14	286%
3.400	\$ 41.99	\$ 161.10	\$ 119.11	284%
3.600	\$ 42.63	\$ 162.71	\$ 120.08	282%
3.800	\$ 43.26	\$ 164.31	\$ 121.05	280%
4.000	\$ 43.89	\$ 165.91	\$ 122.02	278%
4.200	\$ 44.52	\$ 167.51	\$ 122.99	276%
* 4.400	\$ 45.15	\$ 169.11	\$ 123.96	275%
4.600	\$ 45.79	\$ 170.72	\$ 124.93	273%
4.800	\$ 46.42	\$ 172.32	\$ 125.90	271%
5.000	\$ 47.05	\$ 173.92	\$ 126.87	270%
5.200	\$ 47.68	\$ 175.52	\$ 127.84	268%
5.400	\$ 48.31	\$ 177.12	\$ 128.81	267%
5.600	\$ 48.95	\$ 178.73	\$ 129.78	265%
5.800	\$ 49.58	\$ 180.33	\$ 130.75	264%
6.000	\$ 50.21	\$ 181.93	\$ 131.72	262%
6.200	\$ 50.84	\$ 183.53	\$ 132.69	261%
6.400	\$ 51.47	\$ 185.13	\$ 133.66	260%
6.600	\$ 52.11	\$ 186.74	\$ 134.63	258%
6.800	\$ 52.74	\$ 188.34	\$ 135.60	257%
7.000	\$ 53.37	\$ 189.94	\$ 136.57	256%
7.200	\$ 54.00	\$ 191.54	\$ 137.54	255%
7.400	\$ 54.63	\$ 193.14	\$ 138.51	254%
7.600	\$ 55.27	\$ 194.75	\$ 139.48	252%
7.800	\$ 55.90	\$ 196.35	\$ 140.45	251%
8.000	\$ 56.53	\$ 197.95	\$ 141.42	250%
Average			\$ 123.86	278%

\* Denotes avg. consumption

Northern Hills Water and Sewer Company  
 Bill Impact Comparison of Company Proposed  
 and Staff Proposed Rates

Northern Hills 5/8" meter size

**5/8" Usage Charge Comparison**

Staff Proposed Rates		Company Proposed Rates		Percent Change
Usage	Amount	Amount		
Per 1,000 Gallons	\$ 6.455	\$ 8.01		24.09%

**5/8" Monthly Meter Customer Charge Comparison**

Fixed charges per month	Water	\$ 11.63	\$ 14.43	24.08%
	Sewer	< 1,000 gal \$ 97.06	< 1,000 gal \$ 119.44	23.06%
		>= 1,000 ga \$ 100.81	>= 1,000 gal \$ 119.44	

**5/8" Bill Comparison**

Level of Usage (1,000 Gal)	Staff Proposed Monthly Bill	Company Proposed Monthly Bill	Dollar Difference	Percent Difference
0.000	\$ 108.69	\$ 133.87	\$ 25.18	123.17%
1.000	\$ 118.90	\$ 141.88	\$ 22.99	119.33%
1.200	\$ 120.19	\$ 143.48	\$ 23.30	119.38%
1.400	\$ 121.48	\$ 145.08	\$ 23.61	119.43%
1.600	\$ 122.77	\$ 146.69	\$ 23.92	119.48%
1.800	\$ 124.06	\$ 148.29	\$ 24.23	119.53%
2.000	\$ 125.35	\$ 149.89	\$ 24.54	119.58%
2.200	\$ 126.64	\$ 151.49	\$ 24.85	119.62%
2.400	\$ 127.93	\$ 153.09	\$ 25.16	119.67%
2.600	\$ 129.22	\$ 154.70	\$ 25.47	119.71%
2.800	\$ 130.51	\$ 156.30	\$ 25.78	119.76%
3.000	\$ 131.81	\$ 157.90	\$ 26.10	119.80%
3.200	\$ 133.10	\$ 159.50	\$ 26.41	119.84%
3.400	\$ 134.39	\$ 161.10	\$ 26.72	119.88%
3.600	\$ 135.68	\$ 162.71	\$ 27.03	119.92%
3.800	\$ 136.97	\$ 164.31	\$ 27.34	119.96%
4.000	\$ 138.26	\$ 165.91	\$ 27.65	120.00%
4.200	\$ 139.55	\$ 167.51	\$ 27.96	120.04%
* 4.400	\$ 140.84	\$ 169.11	\$ 28.27	120.07%
4.600	\$ 142.13	\$ 170.72	\$ 28.58	120.11%
4.800	\$ 143.42	\$ 172.32	\$ 28.89	120.15%
5.000	\$ 144.72	\$ 173.92	\$ 29.21	120.18%
5.200	\$ 146.01	\$ 175.52	\$ 29.52	120.22%
5.400	\$ 147.30	\$ 177.12	\$ 29.83	120.25%
5.600	\$ 148.59	\$ 178.73	\$ 30.14	120.28%
5.800	\$ 149.88	\$ 180.33	\$ 30.45	120.32%
6.000	\$ 151.17	\$ 181.93	\$ 30.76	120.35%
6.200	\$ 152.46	\$ 183.53	\$ 31.07	120.38%
6.400	\$ 153.75	\$ 185.13	\$ 31.38	120.41%
6.600	\$ 155.04	\$ 186.74	\$ 31.69	120.44%
6.800	\$ 156.33	\$ 188.34	\$ 32.00	120.47%
7.000	\$ 157.63	\$ 189.94	\$ 32.32	120.50%
7.200	\$ 158.92	\$ 191.54	\$ 32.63	120.53%
7.400	\$ 160.21	\$ 193.14	\$ 32.94	120.56%
7.600	\$ 161.50	\$ 194.75	\$ 33.25	120.59%
7.800	\$ 162.79	\$ 196.35	\$ 33.56	120.62%
8.000	\$ 164.08	\$ 197.95	\$ 33.87	120.64%
	Average	\$ 168.94	\$ 28.34	120.14%

\*Denotes avg. consumption