



*Caring People
Quality Programs
Exceptional Service*

SPECIAL MEETING ITEM: 1

Memo

Water & Pollution Control Department
515-239-5150

TO: Mayor and City Council Members
FROM: John R. Dunn, Director, Water and Pollution Control Department
DATE: March 19, 2010
SUBJECT: March 23 Workshop on Water and Sewer Rates

Thank you for agreeing to meet ahead of the regular City Council meeting on March 23 to discuss the issue of water and sewer revenues necessary to support the planned operating and capital budgets. As you know quite well, both the water and sewer utilities are facing significant expenses in the coming years. The proposed projects are a combination of the need to provide the water and wastewater capacity for our growing community, the need to respond to new and anticipated regulatory requirements, and the need to re-invest in the infrastructure of these two utilities.

To help you be prepared for the workshop, I have attached a number of documents for your review. The first is a copy of the presentation I will share next Tuesday evening. The second contains selected slides from the March 4, 2008 workshop when the current rate structure was discussed. The final pages are summaries of the historical water and sewer rates in Ames.

My goals for the workshop are two-fold. The short-term goal is to share with you background information to explain the need for the rate increase being recommended to you effective this July. The long-term goal is to ensure that you are presented with the full picture of revenue needs for these two utilities beyond the next fiscal year so that you feel comfortable in your ability to make well-informed decisions.

I look forward to meeting with you to discuss the exciting future of the water and sewer utilities as we seek to meet the needs and expectations of our community!

JRD/bas

Attachments

The Diamond-Water Paradox: The apparent contradiction that, although water is on the whole more useful to survival than diamonds, diamonds command a higher price in the market.



Adam Smith
19th Century Scottish Moral Philosopher

City of Ames
Water and Pollution
Control Department

FY 2010-2011
Water and Sewer
Revenue Adjustments

March 23, 2010



Agenda

- ❑ National, Regional, and Statewide Trends in Rates
- ❑ Projected Need for Revenue Increases in Ames
- ❑ Translating Revenue Increases to Rate Increases
- ❑ Projected Ames Rates Compared to Projected Statewide Medians
- ❑ Council Discussion and Direction

Sources of Information

- ❑ 2008 Financial Survey Summary - National Association of Clean Water Agencies
- ❑ 2008 Water and Wastewater Rate Survey – American Water Works Association
- ❑ Municipal Rate Survey 2007-2008 – Howard R. Green Company
- ❑ 2009 Water Rates and Sewer Service Charges Survey – City of Ames, Iowa

National Trends in Water Rates

“Water and wastewater utilities provide a service essential to daily life. Water is a commodity of which consumption can be reduced, but only to a certain level. Customers may conserve for ethical or financial reasons, but there will always be a basic need for water and wastewater services.”

-2008 Water and Wastewater Rate Survey,
American Water Works Association

<u>2002 to 2008 Water Rates</u>	
Average Increase in Service Charge:	4.68%
Average Increase in Consumer Price Index:	3.33%

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National Trends in Sewer Rates

“While it is assumed that expenses will naturally increase due to inflationary pressures and population growth, the survey data reveal that clean water utilities have experienced cost increases at levels much higher than would be expected due to these factors alone. Some of the additional cost increases are due to new regulatory requirements and efforts to increase service levels.”

- 2008 NACWA Financial Survey Summary

<u>2003 to 2008 Sewer Rates</u>	
Average Increase in Service Charge:	5.53%
Average Increase in Consumer Price Index:	3.05%

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National Trends in Water and Sewer Rates

Of the drinking water utilities that responded to the survey, 84% have increased water rates in the past two years. Of those with increases, a third had increases of greater than 20%.

Of the wastewater utilities that responded to the survey, 84% have increased sewer rates in the past two years. Of those with increases, nearly half had increases of greater than 20%.

- 2008 Water and Wastewater Rate Survey,
American Water Works Association

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Midwest Trends in Water and Sewer Rates

Of the respondents who indicated the dates of drinking water rate increases, 83% had increased rates in the past two years. Only 6% indicated they had not increased rates in the past five years.

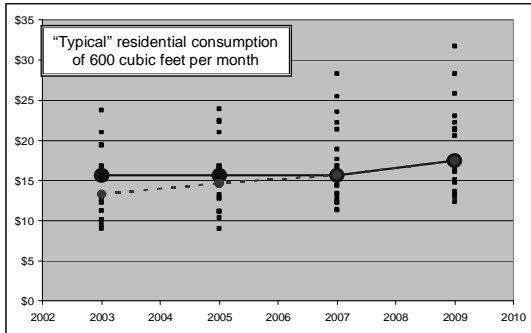
“Almost all” wastewater respondents reported rate increases within the past two years, and 80% indicated they were anticipating an increase in the coming year.

-Municipal Rate Survey, 2007-2008
Howard R. Green Company

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Iowa Water Rate Comparison

Cities >10,000 Population with Softening Plants

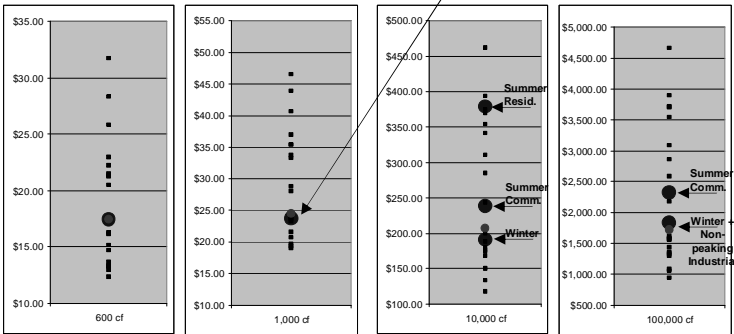


Ames Increase 2003-2009 = 11.7%
State-wide Median increase 2003-2009 = 31.7%

- 2009 - Highest to Lowest
- Fort Madison
 - Altoona
 - Indianola
 - Boone
 - Clive
 - West Des Moines
 - Iowa City
 - Oskaloosa
 - Keokuk
 - Ankeny
 - Ames - Median**
 - Cedar Rapids
 - Storm Lake
 - Ottumwa
 - Des Moines
 - Council Bluffs
 - Marshalltown
 - Newton
 - Burlington
 - Dubuque
 - Spencer

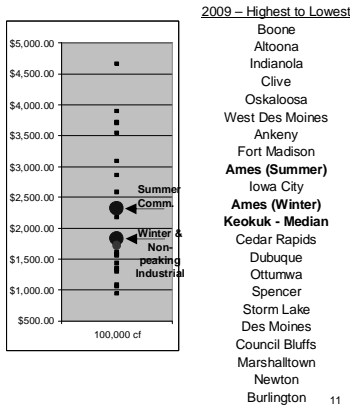
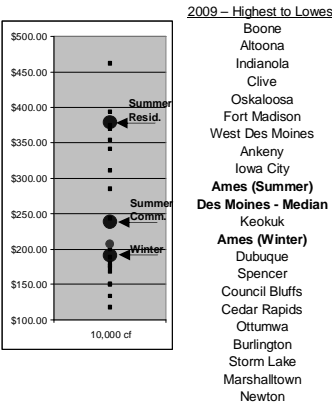
Comparing Across Demand Thresholds – Drinking Water (2009)

90% of all residential customers use 1,000 cubic feet per month or less



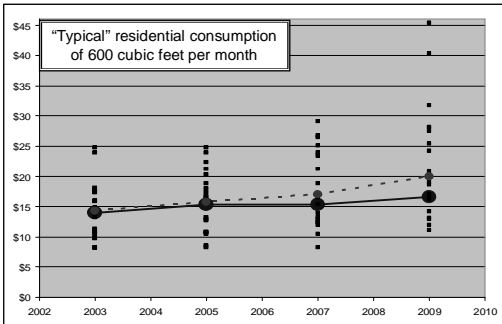
○ - Statewide Median ● - Ames (2009)

Comparing Across Demand Thresholds – Drinking Water (2009)



Iowa Sewer Rate Comparison

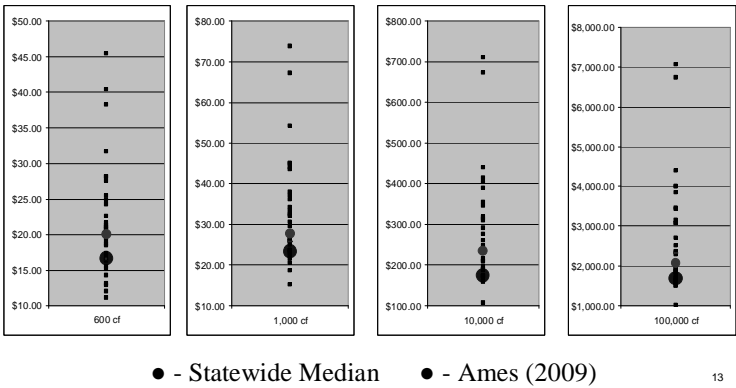
Cities >10,000 Population



Ames Increase 2003-2009 = 19.1%
State-wide Median increase 2003-2009 = 44.9%

- 2009-Highest to Lowest
- Boone
 - Clinton
 - Ottumwa
 - Ankeny
 - Iowa City
 - Altoona
 - Indianola
 - Des Moines
 - Oskaloosa
 - Clive
 - Sioux City
 - Carroll
 - Spencer
 - Fort Madison
 - West Des Moines
 - Marshalltown
 - Storm Lake
 - Cedar Rapids - Median**
 - Cedar Falls
 - Keokuk
 - Mason City
 - Muscatine
 - Burlington
 - Marion
 - Ames**
 - Newton
 - Coraville
 - Fort Dodge
 - Waterloo
 - Urbandale
 - Dubuque
 - Davenport
 - Council Bluffs
 - Bettendorf
 - Iowa Great Lakes

Comparing Across Demand Thresholds –
Sewer (2009)



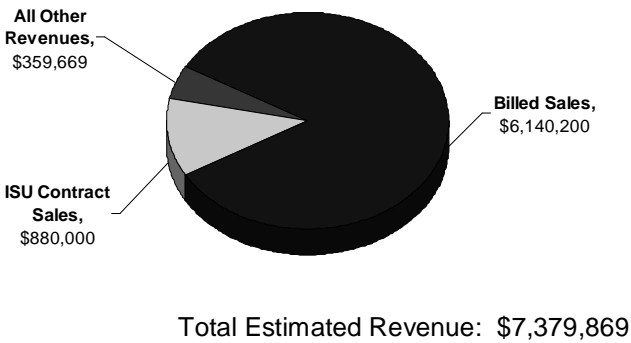
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Water Rates
for FY 2010/11



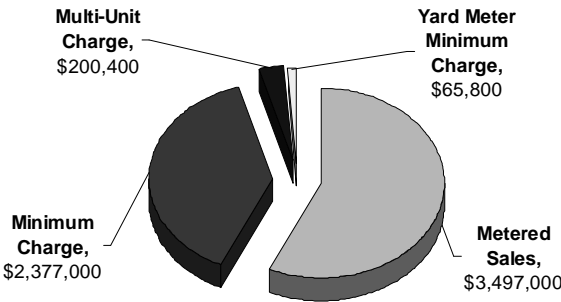
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Water Revenue Categories -
FY 2009/10 Estimates



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Water Revenue Categories -
FY 2009/10 Estimates



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Current Rates – Water Consumption

	<u>Charge per cubic foot</u>
Winter	
(All customers, all consumption)	\$0.0157
Summer	
Residential	
Block 1 (First 1,000 cf)	0.0157
Block 2 (Next 1,500 cf)	0.0278
Block 3 (Over 2,500 cf)	0.0417
Irrigation and Yard Water	
Block 1 (First 2,000 cf)	0.0227
Block 2 (Next 3,000 cf)	0.0417
Block 3 (Over 5,000 cf)	0.0695
Non-Residential	
All Consumption	0.0206
Non-peaking Industrial	
All Consumption	0.0157

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Current Rates – Minimum Charge

<u>Size of Meter</u>	<u>Minimum Monthly Charge</u>
5/8" or 5/8" x 3/4"	8.05
3/4"	16.10
1"	32.20
1-1/2"	64.40
2"	128.80
2", battery of 2	249.55
2", battery of 3	370.30
3"	257.60
4"	434.70
6"	724.50
8"	1,449.00
10"	2,173.00

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Current Rates – Multi-Unit Charges

Multiple dwellings – Multiple dwellings (such as in a mobile home park) may be services from a single water meter. However, there is a surcharge added to the minimum bill charge.

5/8" meter serving 2 or more dwelling units	2.30/month/unit
3/4" meter serving 4 or more dwelling units	2.30/month/unit
1" meter serving 8 or more dwelling units	2.30/month/unit
1-1/2" meter serving 16 or more dwelling units	2.30/month/unit
2" meter serving 30 or more dwelling units	69.30/month
for the first 30 units plus \$3.60/month per unit	
for each additional unit in excess of 30 units	
3" or larger meter serving any number of dwelling units	3.20/month/unit

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Current Rates – Yard Meter Minimum Charge

<u>Size of Meter</u>	<u>Minimum Monthly Charge</u>
5/8" or 5/8" x 3/4"	3.05
3/4"	4.70
1"	6.60
1-1/2"	9.10
2"	12.10
3"	15.70
4"	19.55
6"	23.40
8"	27.25
10"	31.10

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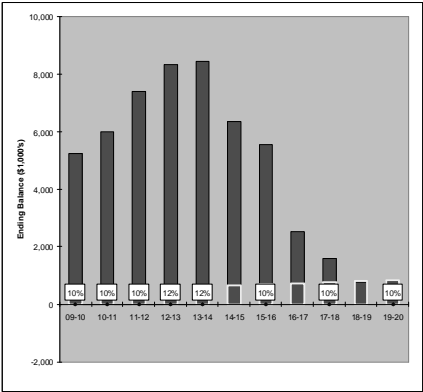
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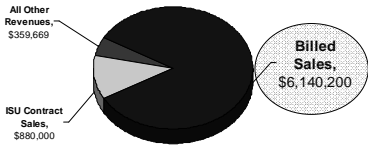
Projected Water Fund Balance



A fund balance builds in the early years, then is drawn down as debt service on SRF loan kicks in

Revenue Increase for FY 2010/11

- From fund projections, 10% increase in rate-derived revenues
- Translates to approximately \$614,000
- Can be applied as an “across the board” increase, or can be targeted at specific revenue components
- Council has latitude in discretion, as long as there is a rational basis (i.e. – not “arbitrary” or “capricious”)



Option 1:
“Across-the-board” Percent Increase

	Existing	Adjusted	Change (\$)	Change (%)
Winter (All customers, all consumption)	\$0.0157	\$0.0173	\$0.0016	10%
Summer				
Residential				
Block 1 (First 1,000 cf)	0.0157	0.0173	0.0016	10%
Block 2 (Next 1,500 cf)	0.0278	0.0306	0.0028	10%
Block 3 (Over 2,500 cf)	0.0417	0.0459	0.0042	10%
Irrigation and Yard Water				
Block 1 (First 2,000 cf)	0.0227	0.0250	0.0023	10%
Block 2 (Next 3,000 cf)	0.0417	0.0459	0.0042	10%
Block 3 (Over 5,000 cf)	0.0695	0.0765	0.0070	10%
Non-Residential				
All Consumption	0.0206	0.0227	0.0021	10%
Non-peakng Industrial				
All Consumption	0.0157	0.0173	0.0016	10%

All Minimum Bill Charges Increase by 10%

Option 2:
“Across-the-board” Per Unit Increase

	Existing	Adjusted	Change (\$)	Change (%)
Winter (All customers, all consumption)	\$0.0157	\$0.0174	\$0.0017	10.8%
Summer				
Residential				
Block 1 (First 1,000 cf)	0.0157	0.0174	0.0017	10.8%
Block 2 (Next 1,500 cf)	0.0278	0.0295	0.0017	6.1%
Block 3 (Over 2,500 cf)	0.0417	0.0434	0.0017	4.1%
Irrigation and Yard Water				
Block 1 (First 2,000 cf)	0.0227	0.0244	0.0017	7.5%
Block 2 (Next 3,000 cf)	0.0417	0.0434	0.0017	4.1%
Block 3 (Over 5,000 cf)	0.0695	0.0712	0.0017	2.4%
Non-Residential				
All Consumption	0.0206	0.0223	0.0017	8.3%
Non-peakng Industrial				
All Consumption	0.0157	0.0174	0.0017	10.8%

All Minimum Bill Charges Increase by 10%

Option 3:
Entire Revenue Increase from Minimum Bill

- FY 09/10 Estimate: \$2,377,000
- Recommended Revenue Increase: \$614,000
- Needed Minimum Bill Increase: 26%
- Unit Rates Would Remain Unchanged

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Option 4:
Entire Revenue Increase from Unit Rate

- FY 09/10 Estimate: \$3,497,000
- Recommended Revenue Increase: \$614,000
- Needed Unit Rate Increase: 17.6%
- Minimum Bill Charges Would Remain Unchanged

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Summary of Impacts

	Option 1: 10% Across-the-board Increase		Option 2: Constant \$0.0017 per cf Increase		Option 3: All Increase in Minimum Bill		Option 4: All Increase in Unit Rate	
	\$	%	\$	%	\$	%	\$	%
600 cf	1.75	10	1.82	10.4	2.10	12.0	1.68	9.6
1,000 cf	2.38	10	2.50	10.5	2.10	8.8	2.80	11.8
10,000 cf	23.82	10	20.20	8.5	8.40	3.5	37.00	15.5
100,000 cf	235.60	10	195.60	8.4	67.00	2.8	370.00	16.0

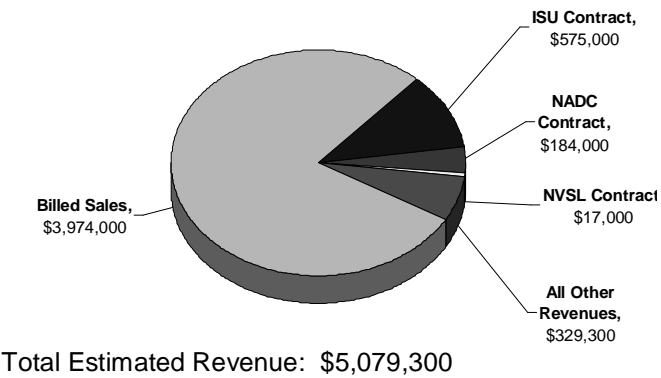
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Sewer Rates
for FY 2010/11



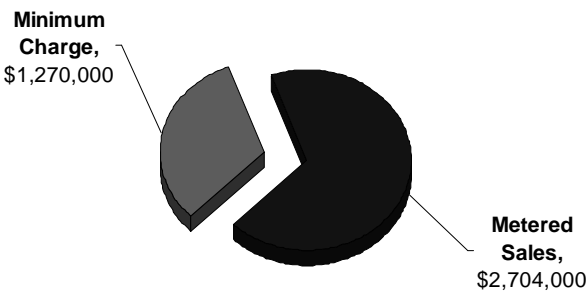
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Sewer Revenue Categories -
FY 2009/10 Estimates



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Sewer Revenue Categories -
FY 2009/10 Estimates



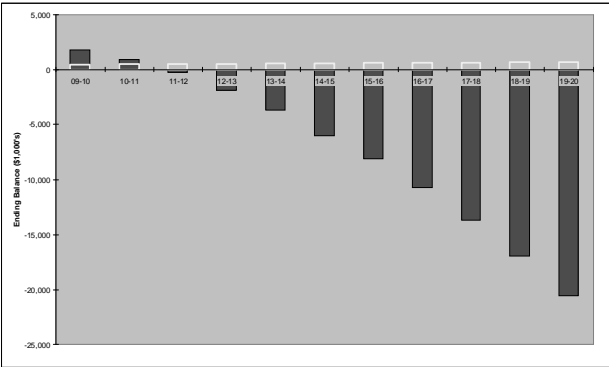
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Current Rates - Sewer

- ❑ Minimum Bill:
\$6.55 per month per customer account
- ❑ Consumption:
\$1.68 per 100 cubic feet

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Projected Sewer Fund Balance



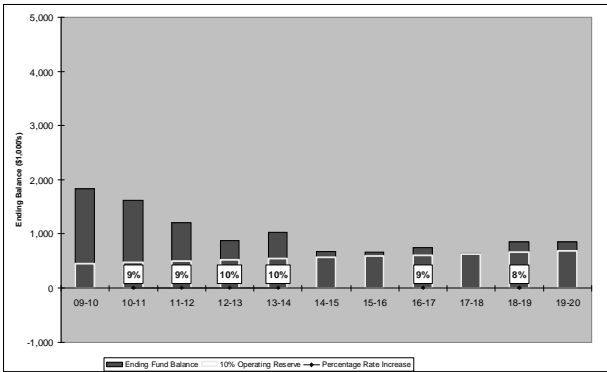
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Anticipated Rate Increases

Year	10-11	11-12	12-13	13-14
Water	10%	10%	12%	12%
Sewer	9%	9%	10%	10%

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Projected Sewer Fund Balance



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Revenue Increase for FY 2010/11

- ❑ From fund projections, 9% increase in rate-derived revenues
- ❑ Translates to approximately \$358,000
- ❑ Simple sewer rate structure – “Across the board”

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“Across-the-board” Percent Increase

	Existing	Adjusted	Difference
Consumption All customers, all consumption levels	\$0.0168	\$0.0183	\$0.0015
Minimum Bill All customers, per month	\$6.55	\$7.15	\$0.60

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Future Rate Comparisons

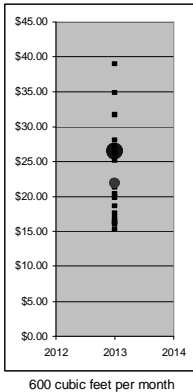


Anticipated Rate Increases

Year	10-11	11-12	12-13	13-14
Water	10%	10%	12%	12%
Sewer	9%	9%	10%	10%

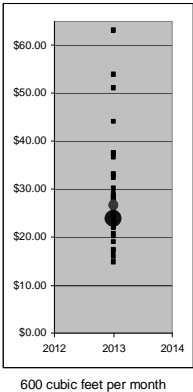
State-wide average increase of 5.28% per year for water
State-wide average increase of 7.48% per year for sewer

Projected Water Rate Comparison in 2013



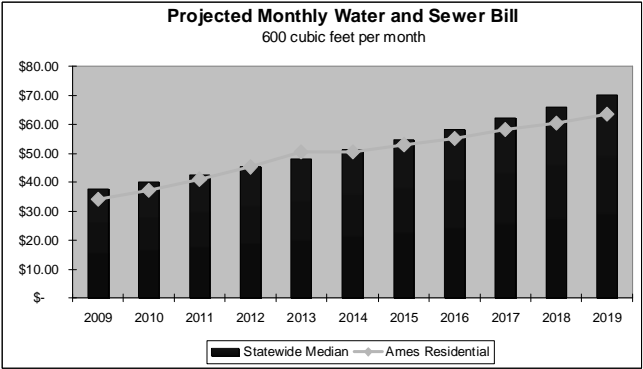
Ames Water: \$26.52/month
State Median: \$21.88/month

Projected Sewer Rate Comparison in 2013



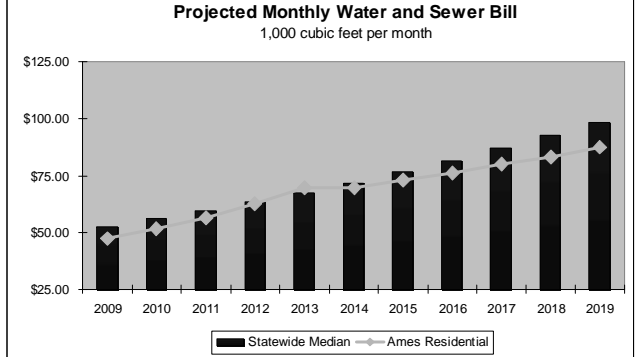
Ames Sewer: \$23.91/month
State Median: \$26.67/month

Projected Combined Water and Sewer Bill



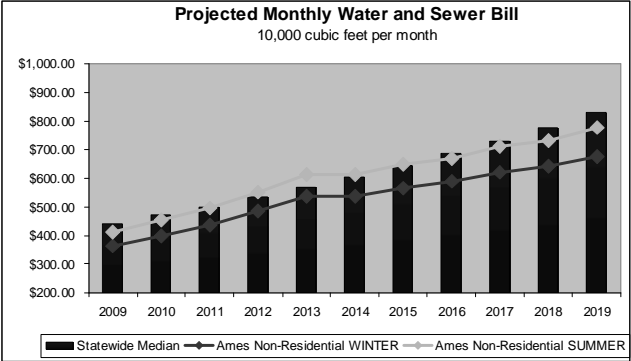
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Projected Combined Water and Sewer Bill



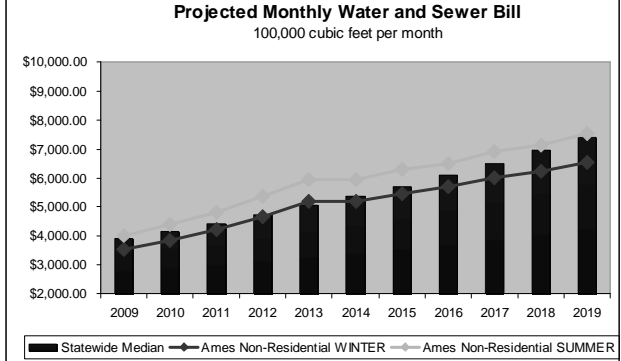
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Projected Combined Water and Sewer Bill



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Projected Combined Water and Sewer Bill



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“Typical Residential Customer”

Total Utility Bill

Median Residential Use Customer (600 kWh and 600 cf)

	Electric, \$ (Summer)	Stormwater, \$	Water, \$ (Summer)	Sewer, \$	Total, \$
Current Rates	69.81	3.00	17.47	16.63	106.91
Increase	3.49		1.75	1.50	6.74
TOTALS	73.30	3.00	19.22	18.13	113.65
Impact on Total Bill, %	3.3%		1.6%	1.4%	6.3%

Moderate Residential Use Customer (1,000 kWh and 1,000 cf)

	Electric, \$ (Summer)	Stormwater, \$	Water, \$ (Summer)	Sewer, \$	Total, \$
Current Rates	112.85	3.00	23.75	23.35	162.95
Increase	5.64		2.38	2.10	10.12
TOTALS	118.49	3.00	26.13	23.45	173.07
Impact on Total Bill, %	3.4%		1.5%	1.3%	6.2%

Assumes: ~5% in electricity bill due to ECA cost adjustment
 10% across-the-board for water (Option 1)
 9% across-the board for sewer

“Typical Commercial Customer”

Total Utility Bill

Small Commercial Use Customer (5,000 kWh and 1,000 cf)

	Electric, \$ (Summer)	Stormwater, \$	Water, \$ (Summer)	Sewer, \$	Total, \$
Current Rates	550.50	3.00	28.65	23.35	605.50
Increase	27.53		2.87	2.10	32.50
TOTALS	578.03	3.00	31.52	23.45	636.00
Impact on Total Bill, %	4.5%		0.5%	0.4%	5.4%

Moderate Commercial Use Customer (10,000 kWh and 10,000 cf)

	Electric, \$ (Summer)	Stormwater, \$	Water, \$ (Summer)	Sewer, \$	Total, \$
Current Rates	1,059.30	3.00	238.20	174.55	1,475.05
Increase	52.97		23.82	15.71	92.50
TOTALS	1,112.27	3.00	262.02	190.26	1567.55
Impact on Total Bill, %	3.6%		1.6%	1.1%	6.3%

Large Commercial Customer (60,000 kWh with 130 kW demand and 15,000 cf)

	Electric, \$ (Summer)	Stormwater, \$	Water, \$ (Summer)	Sewer, \$	Total, \$
Current Rates	5,087.60	3.00	241.20	258.55	5,617.35
Increase	254.36		24.12	23.27	301.75
TOTALS	5,341.98	3.00	263.32	281.82	5,919.10
Impact on Total Bill, %	4.5%		0.4%	0.4%	5.3%

Council Direction

- Manager’s Recommendation
 - Approve a 10% increase in water rates (Option 1)
 - Approve a 9% increase in sewer rates

- Timeline
 - Three readings (April 13, April 27, May 11)
 - Effective for usage on and after June 1
 - Effective for bills mailed on and after July 1

City of Ames
Water and Pollution
Control Department

FY 2010-2011
Water and Sewer
Revenue Adjustments

March 23, 2010





**Seasonal Water
Rate Structures**

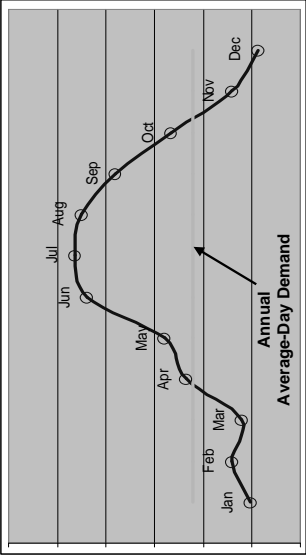
Ames City Council Meeting
March 4, 2008



Purpose

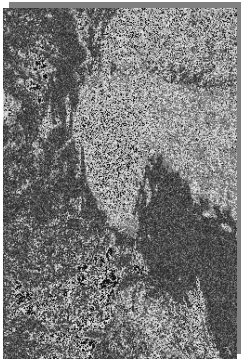
- Use our water rate structure to encourage conservation during our peak consumption season
- Shift the cost for the construction of additional treatment capacity to those uses of water that are driving the cost

Average Monthly Demand



August 21, 2007 Workshop

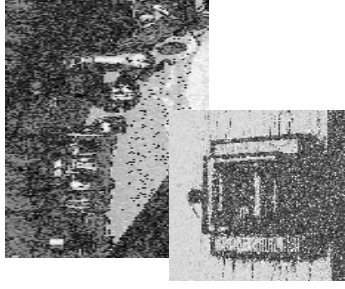
- Identified two rate structures as being “Conservation-oriented”
 - Seasonal Rates
 - Inclining Block Rates



What is a “cf”?

“cf” is a short-hand abbreviation for “Cubic Feet”

(Equals 7.48 Gallons)



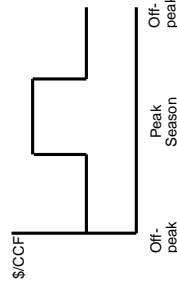
Seasonal Rate Structures

“The objectives of seasonal rates are to

- Better match price and cost recovery to demand patterns and
- Provide a price incentive for customers to reduce their consumption during peak-use periods.”



Seasonal Rate



Pro

- Encourages seasonal conservation
- Familiar – common among electric and gas utilities
- Can reduce cost to all customers

Con

- Customers see large seasonal swing in bill
- Risk of revenue instability due to weather

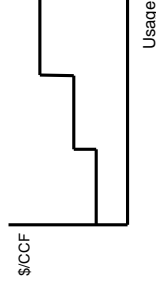
Inclining Block Rate Structure

“Inclining block rates should be considered when the utility

- Is able to distinguish separate customer classes for billing;
- Has the analytical ability to design block rate structures, including the ability to define the amount of water sold by block;
- Is confronting system capacity constraints or potential system expansion; and
- Would like to send a strong price signal.”



Inclining Block Rate



Pro

- Encourages conservation – Very strong price signal
- Flexibility in rate design
- Strongest demand-side management rate structure

Con

- Potential revenue volatility
- Can discourage new water-intensive businesses
- Complicated structures can be confusing to customers

Recommended Approach

A blend of seasonal rates and inclining block rates

- **Seasonal Inclining Blocks** for “Residential” and “Irrigation” Customer Classes
- **Seasonal Flat Rates** for Commercial and Industrial Customer Classes

Non-Residential Rates

- Non-discretionary water use varies widely
- Development of block sizes more arbitrary
- Possible Solution: Flat Summer Rate



Seasonal Water Rate Structures

Are we on the right path?

WATER and POLLUTION CONTROL DEPARTMENT

Water Rate Summary Ames, Iowa 1939 - Present

Date	Rate Format	Minimum Bill, \$	Allowance, cf	Unit Rate, \$/100 cf	Comments
Sept. 1939	Declining Block	?	?	1 st 1,500 cf 0.22 Next 1,500 cf 0.17 Next 3,000 cf 0.15 Next 6,000 cf 0.13 Next 12,000 cf 0.115 > 24,000 cf 0.10	
Nov. 1948	Declining Block	?	?	1 st 3,000 cf 0.28 Next 3,000 cf 0.22 Next 6,000 cf 0.17 > 12,000 cf 0.13	
Aug. 1951	Declining Block	?	?	1 st 1,000 cf 0.37 Next 4,000 cf 0.32 > 5,000 cf 0.21	
Sept. 1952	Declining Block	1.25	250	1 st 1,000 cf 0.50 Next 4,000 cf 0.46 Next 495,000 cf 0.32 > 500,000 cf 0.25	This step added 1958
May 1969	Declining Block	2.00	300	1 st 300 cf 0.667 Next 700 cf 0.56 Next 9,000 cf 0.47 Next 490,000 cf 0.39 > 500,000 cf 0.36	Multiple Dwelling Rate added April 1970
Sept. 1972	Declining Block	3.00	300	1 st 300 cf 3.00 Next 700 cf 0.80 Next 9,000 cf 0.70 Next 90,000 cf 0.60 Next 400,000 cf 0.52 > 500,000 cf 0.39	

Date	Rate Format	Minimum Bill, \$	Allowance, cf	Unit Rate, \$/100 cf	Comments
Dec. 1973	Declining Block	2.00	200	1 st 200 cf 2.00 Next 200 cf 0.80 Next 600 cf 0.70 Next 9,000 cf 0.65 Next 90,000 cf 0.55 Next 400,000 cf 0.50 > 500,000 cf 0.39	
May 1978	Flat Rate	3.00	100	> 100 cf 0.71	
July 1992	Flat Rate	4.00	100	> 100 cf 0.95	33% across the board
May 1994	Flat Rate	6.00	0	> 0 cf 1.14	50% minimum bill, 20% unit rate
May 1995	Flat Rate	6.00	0	> 0 cf 1.14	Yard meter minimum bill adopted
July 1997	Flat Rate	6.85	0	> 0 cf 1.23	10% revenue increase
July 2000	Flat Rate	7.30	0	> 0 cf 1.39	10% revenue increase
July 2008	Seasonal Inclining	7.30	0	<u>Winter</u> All consumption 1.39 <u>Summer</u> <i>Residential</i> 1 st 1,000 cf 1.39 Next 1,500 cf 2.78 Over 2,500 cf 4.17 <i>Irrigation & Yard Water</i> 1 st 2,000 cf 2.09 Next 3,000 cf 4.17 Over 5,000 cf 6.95 <i>Non-residential</i> All consumption 1.88 <i>Non-peaking Industrial</i> All consumption 1.39	Start of inclining block structure; base rate (\$1.39) and minimum bill (\$7.30) unchanged from 2000.

Date	Rate Format	Minimum Bill, \$	Allowance, cf	Unit Rate, \$/100 cf	Comments
July 2009	Seasonal Inclining	\$8.05	0	<u>Winter</u> All consumption 1.57 <u>Summer</u> <i>Residential</i> 1 st 1,000 cf 1.57 Next 1,500 cf 2.78 Over 2,500 cf 4.17 <i>Irrigation & Yard Water</i> 1 st 2,000 cf 2.27 Next 3,000 cf 4.17 Over 5,000 cf 6.95 <i>Non-residential</i> All consumption 2.06 <i>Non-peaking Industrial</i> All consumption 1.57	10% revenue increase, all applied to the base blocks
July 2010 PROPOSED	Seasonal Inclining	\$8.85	0	<u>Winter</u> All consumption 1.73 <u>Summer</u> <i>Residential</i> 1 st 1,000 cf 1.73 Next 1,500 cf 3.06 Over 2,500 cf 4.59 <i>Irrigation & Yard Water</i> 1 st 2,000 cf 2.50 Next 3,000 cf 4.59 Over 5,000 cf 7.65 <i>Non-residential</i> All consumption 2.27 <i>Non-peaking Industrial</i> All consumption 1.73	10% across the board

cf = cubic feet

Note: Early Rates

- A 1905 source indicated the Ames water rate was \$0.30/1,000 gallons (the equivalent of \$0.225/100 cubic feet)
- September 1928 cost for 600 cf/month - \$1.80 (\$0.30/100 cf)

WATER and POLLUTION CONTROL DEPARTMENT

Sewer Rate Summary Ames, Iowa 1946 - Present

Date	Rate Format	Minimum Bill, \$	Allowance, cf	Unit Rate, \$/100 cf		Comments
Dec. 1946	Declining Block	0.50	500	1 st 5,000 cf	0.10	1 st Sewer Rate Ordinance
				> 5,000 cf	0.05	
Sept. 1958	Declining Block	1.00	500	1 st 500 cf	0.20	
				Next 500 cf	0.16	
				Next 4,000 cf	0.14	
				> 5,000 cf	0.10	
Mar. 1971	Declining Block	2.00	300	1 st 300 cf	0.667	Multiple Dwelling Rate Adopted Summer Beautification Rate Adopted
				Next 700 cf	0.38	
				Next 9,000 cf	0.28	
				Next 90,000 cf	0.22	
				Next 400,000 cf	0.20	
				> 500,000 cf	0.16	
Dec. 1973	Declining Block	1.50	200	1 st 200 cf	0.75	Summer Beautification Rate Canceled July 1977
				Next 200 cf	0.40	
				Next 600 cf	0.38	
				Next 9,000 cf	0.28	
				Next 90,000 cf	0.22	
				Next 400,000 cf	0.20	
				> 500,000 cf	0.16	
July 1979	Flat Rate	2.00	100	> 100 cf	0.60	
Jan. 1980	Flat Rate	2.00	100	> 100 cf	0.86	
June 1984	Flat Rate	3.00	100	> 100 cf	1.30	
July 1985	Flat Rate	3.00	100	> 100 cf	1.70	Water Only Yard Meter Program Adopted
July 1992	Flat Rate	3.00	100	> 100 cf	1.41	17% decrease in unit rate
July 1995	Flat Rate	5.50	0	> 0	1.41	50% increase in minimum bill
July 2005	Flat Rate	6.05	0	> 0	1.55	10% across the board
July 2008	Flat Rate	6.55	0	> 0	1.68	8% across the board
July 2010 PROPOSED	Flat Rate	7.15	0	> 0	1.83	9% across the board

cf = cubic feet