

City of Morrison Water & Sewer Rate Study

Presentation of Findings and
Recommendations

City Council Meeting

July 14, 2008

*"Water and sewer utilities are businesses.
If run and financed well, they become invisible
wonders providing excellent service.
If not, they become very visible sources of
trouble for a community."*

-- On-Tap Magazine

- This highlights a major focus of the rate study.
- There are several major capital projects that Morrison needs to undertake in order to maintain and improve the function and operability of the water and sewer utilities, but we needed to figure out how the City could fund all these projects without making rates unaffordable.

Goals of Rate Study

- Cover all routine O&M and overhead costs
- Maintain a sufficient operating balance
- Capital project funding

•Cover the everyday costs of keeping the water and sanitary sewer utilities in operation.

•Operating reserve is a safety net to supplement revenues in the case of a wet summer, large user leaving town, or emergency.

•Major capital projects are needed in response to several issues – aging WWTP, contaminated well, need for maintenance

Components of Rate Analysis

- Historical revenue and expense trends
- Typical water pumpage and consumption
- Equipment and infrastructure inventory
- Capital projects
- Continuous involvement by City staff

•We used several pieces of information to project revenues and expenses and determine what rates would be needed to meet anticipated expenses.

•City staff were extremely helpful throughout the data gathering and review processes. Their participation ensured that the rate analysis is an accurate representation of the City's current situation and future goals.

Outline of Presentation

- Financial analysis
- Pumpage and consumption
- Capital projects
- Rate structure changes
- Proposed rates and connection fees
- Implementation

Financial Analysis

- Evaluated operating expenses in detail.
- Assessed inflation trends for all expenses.
- Conclusion: Current rates can cover operating expenses, but cannot fund capital projects.

•Capital projects refer to any significant investment in maintaining or expanding the water and sewer systems.

•Includes maintenance projects such as painting the water tower or rehabbing a well

•Also includes major improvements such as a new well or a major upgrade to the wastewater treatment plant.

Water Pumpage and Consumption

- Key findings: Only 50% of water pumped from the City's wells is billed to customers.
 - Target is 85-90%.
 - Illustrates need for water meter replacement.
- Future changes in water consumption:
 - Little increase expected from growth.
 - Water meter replacement will likely increase billed water consumption, but difficult to quantify.

•Lack of water main breaks and apparent service leaks points to under-reading water meters as major contributor to water billing disparity.

•Particularly in the industrial sector, usage has decreased by 95% since 2005; meanwhile, no major process changes have taken place.

•The water/sewer billing software should also be audited to ensure that no errors are occurring in the tabulation of metered water usage.

Capital Projects

- Major capital improvements:
 - New well
 - Major WWTP upgrades
 - New Public Works facility
 - Water distribution system enhancements
- \$8 million total cost over next five years.
 - Bonding is needed to cover these costs.

•Water main improvements will eliminate dead ends, thereby boosting pressure, improving fire protection, and ensuring good water quality.

•Major capital improvements are one-time investments, not recurring project. They are funded on an as-needed basis, typically requiring the issuance of debt.

•Water and Wastewater Use Charges need to be increased to make these bond payments.

Capital Projects

- Infrastructure maintenance:
 - Hydrant replacement
 - Water main replacement/sewer rehabilitation
 - Water meter replacement
 - Water tower painting
 - Lift station and well rehabilitation
- \$2.8 million total cost over next five years.
 - Bonding is needed to cover part of these costs.

•These projects either occur on a regular cycle that will allow the City to save for them over a period of time, or are ongoing efforts that must be continuously funded in small increments every year.

•Water and Wastewater Use Charges need to be increased to make bond payments and provide for annual funding for ongoing projects.

Proposed Rate Structure Changes

- Eliminate the Debt Service Charge and the Capital Improvement Charge.
- Revise the Water Service Charge and the Wastewater Service Charge.
 - Set based on actual overhead expenses.
 - Include first 1,000 gallons of usage each month.
- Eliminate the declining Water Use Charges.

•The Debt Service and Capital Improvement Charges were set several years ago to fund specific projects that have since been paid off.

•Water and Wastewater Service Charges are monthly minimum fees. The purpose of minimum fees is to cover overhead costs that must be paid regardless of how much water is used: administrative salaries and benefits, meter reading, billing, keeping the City offices open, etc. Therefore, they should be set precisely to cover these expenses.

•Declining Water Use Charges decrease as a customer's water usage increases. This may discourage efficient water use by large water users, and is not recommended.

Proposed Rate Structure Changes

Flat monthly charges:

Charge Description	Current	Proposed
Water Service Charge	\$4.68	\$7.94
Wastewater Service Charge	\$4.50	\$8.98
Debt Service Charge	\$0.75	-
Capital Improvement Charge	\$1.62	-

•Water and wastewater service charges are minimum fees that are revised to cover overhead expenses, so that the City can always cover these costs regardless of how much water is used in any month. They also include the first 1,000 gallons of usage to help low water users adjust to higher rates.

•The debt service and capital improvement charges are no longer needed and are no longer specific to any revenue requirements.

Proposed Rate Structure Changes

- Water Use Charges:
 - Switch from a declining rate structure to a uniform rate structure.
 - The current charge of \$1.45 per 1,000 gallons would increase to \$3.81.
- Wastewater Use Charges:
 - Retain the current uniform rate structure.
 - The current charge of \$0.96 per 1,000 gallons would increase to \$3.54.
- Use Charges do not apply to first 1,000 gallons per month.

•\$1.45/1,000 gallons is the rate paid for just the first 50,000 gallons per month. For usage in excess of 50,000 gallons, a set of declining water rates apply. These declining rates are eliminated in the proposed rate structure, and only the initial rate of \$1.45/1,000 gallons is retained.

•The declining water use charge structure does not encourage conservative water use by large customers and may lead to wasting.

•A uniform water rate structure is preferred so that all customers are paying the same water use charge, regardless of how much water they use.

Proposed Rates

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Water Service Charge (includes first 1,000 gallons)	\$4.68	\$7.94	\$8.34	\$8.76	\$9.20	\$9.66
Wastewater Service Charge (includes first 1,000 gallons)	\$4.50	\$8.98	\$9.42	\$9.89	\$10.38	\$10.90
Water Use Charge (for each additional 1,000 gallons)	\$1.45	\$3.81	\$5.33	\$6.34	\$6.59	\$6.85
Wastewater Use Charge (for each additional 1,000 gallons)	\$0.96	\$3.54	\$5.13	\$5.85	\$6.08	\$6.32
Debt Service Charge	\$0.75	-	-	-	-	-
Capital Improvement Charge	\$1.62	-	-	-	-	-

- Water and wastewater service charges are flat monthly fees that would include the first 1,000 gallons of usage each month.
- The water and wastewater use charges are assessed for each additional 1,000 gallons.
- Most of the rate increase is done in FY 2009. Rate increases are then scaled back gradually in FY 2010 and FY 2011. Only inflationary increases are indicated in FY 2012 and FY 2013.
- FY 2008 column lists the current rates.
- FY 2009 rate increase would be done by the end of summer.
- FY 2010 – FY 2013 increases would take place in April of each following year.
- These rates allow the City to make payments on \$10 million in bonds, cover all routine operating and maintenance expenses, increase annual infrastructure maintenance spending, and maintain a healthy balance in the Water & Sewer Fund.

Future Monthly Bills

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
2,000 gallons per month	\$16	\$24	\$28	\$31	\$32	\$34
5,000 gallons per month	\$24	\$46	\$60	\$67	\$70	\$73
20,000 gallons per month	\$60	\$157	\$217	\$250	\$260	\$271
50,000 gallons per month	\$132	\$377	\$530	\$616	\$640	\$666
125,000 gallons per month	\$307	\$928	\$1,315	\$1,530	\$1,591	\$1,654

- 2,000 and 5,000 gallons per month are typical of a resident.
- The higher usages are more typical of industrial and commercial users.
- Important to check rates and financial situation each year. Highly likely that water meter replacement will increase metered water usage and thereby increase revenue. Future rate increases could be significantly scaled back or even eliminated if more revenue is generated than projected in the rate study.

Water & Sewer Rate Comparisons

Municipality	Monthly Water & Sewer Bill
Prophetstown	\$20
Dixon	\$23
<i>Morrison (current)</i>	<i>\$24</i>
Savanna	\$31
Tampico	\$35
Polo	\$36
Albany	\$41
Rock Falls	\$45
<i>Morrison (new rates)</i>	<i>\$46</i>
Fulton	\$46
Sterling	\$59
Erie	\$63

- These are the equivalent monthly costs for water and sewer service for a resident with a 5/8" water service using an average of 5,000 gallons per month.
- For businesses using 50,000 to 100,000 gallons per month, Morrison is currently the lowest, and would move up to the high end with the new rates.
- Many benefits of these rate increases:
 - revitalized WWTP
 - new well to replace a contaminated one
 - long overdue upgrades to the control building at Well 4
 - better fire protection from replacing hydrants and optimizing water main configurations
 - likelihood of increased revenues from water meter replacements
 - modern public works facility
 - rehabilitation of sewers that will reduce peak wet weather flows at the WWTP

Other Water and Sewer Fees

- Increase water turn off/on fee from \$50 at all times, to \$75 during normal business hours and \$125 after hours.
- Codify water meter fees → fee equals cost of meter plus 25% for inspection and administration
- Increase water connection fee from \$300, to \$760 for long services and \$450 for short services.
- No changes recommended for sewer connection fees of \$20 residential and \$50 non-residential.

- Costs associated with shutting off and restoring water service:

- processing and mailing late notices and additional bills
- physically turning off a water service
- processing the late payments
- returning to the site to restore water service.

- This requires about two hours total time between public works and administrative staff, plus gas to travel to the site twice for shut-off and restoration. After hours, overtime wages apply and must be accounted for.

- Water meters are currently sold to customers at cost. This procedure should be codified, and the additional 25% cost is for administrative time to set up the account and initiate billing, and for public works staff to inspect the new meter after installation. This amounts to about \$30 for a 5/8" meter.

- Actual water service connection costs were tabulated by staff and B&W, and include administrative time to set up the new account and process paperwork, utility locates, excavation, labor and materials used in tapping the water main, and labor and materials for restoration.

- The City's only costs for sewer connections are to set up the account, so the current charges are appropriate.

Implementation

- Make the recommended rate structure changes and increase rates by September 2008.
- Proceed with the proposed water and sewer five-year capital projects program.
- Issue bonds to fund these capital projects.
- Track revenues and expenses each year and compare to projections in the rate study.

•It's important to keep track of revenues and expenses from year to year due to a degree of uncertainty in the projections caused by several factors:

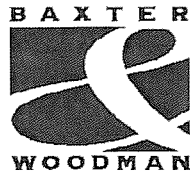
•Higher rates may encourage some conservation, which would decrease revenues. However, lower usage results in lower chemical, electricity, and maintenance costs, which could offset the decrease in revenues.

•Water meter replacement could result in more of the City's usage being registered by the meters, thereby increasing revenues.

•Though the inflation factors used to project operating expenses are based on several years' experience with rate studies and the historical trends observed in Morrison, the possibility always exists that some expenses may increase by more or less than we projected.

•Bid prices for the capital projects could come in lower than expected, in which case the City would have funds available for additional projects.

Questions?



Baxter & Woodman, Inc.
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