

STAFF REPORT

**HISTORY OF WHOLESALE WATER AND SEWER SERVICE AGREEMENTS
AND
ANALYSIS OF REQUEST FROM THE CITY OF GILBERT**

October 13, 2015

On August 25, 2015, Council referred a letter to staff from the City of Gilbert, requesting that the City of Ames consider a possible connection to and supply of water and sewer service from the City of Ames to the City of Gilbert. Council referred the letter to staff. This report provides an historical context of previous such wholesale agreements and a brief analysis of the current request.

Currently, the City of Ames has two wholesale agreements for drinking water and four for wastewater. A summary of the quantities and revenues for these accounts over the past fiscal year is shown below.

	Average Day Demand, gallons per day	Peak Month Demand, gallons per day	Annual Gross Revenues ¹ , \$
Water Contracts			
ISU Central Campus	783,000	994,000	\$791,000
Xenia Rural Water	50	392	\$75
Wastewater Contracts			
ISU Central Campus	902,000	1,161,000	\$1,118,000
USDA – NADC	236,000	400,000	\$345,000
USDA – NVSL	28,300	44,600	\$41,900
City of Kelley	26,900	38,100	\$39,500

1 – Excludes any high strength surcharges for wastewater more concentrated than typical domestic wastewater.

ISU Wastewater

The very first agreement was signed on June 3, 1947 when the City of Ames and Iowa State University entered into an agreement whereby the City would accept and treat wastewater from the University. Prior to this agreement, ISU owned and operated its own wastewater treatment facility. The original agreement was developed during the planning for the City of Ames' then-new treatment facility. The State of Iowa made an up-front payment of 30% of the estimated construction costs, and the final expenses were reconciled based on the University's proportional load to the facility during the first 12 months of operation. This agreement has been modified twice, first in 1972 when discussions first occurred about constructing the next wastewater treatment facility, followed by a substantial rewrite in 1985 as construction for the current treatment facility was beginning.

ISU Drinking Water

In 1962, the City first signed an agreement with Iowa State University for drinking water when the Applied Science Center was constructed on Scholl Road north of Ontario Street. At that time the Applied Science Center complex was outside the City limits. According to the agreement documents, the City constructed the pipeline to connect the new facility, and the University reimbursed the City for the construction cost upon completion. The cost to maintain the line was the responsibility of the City and the unit rate charged to the University was the same rate established by an ordinance that applied to customers within the City limits. The Applied Science Center was covered by this agreement until 1990.

In 1976, the City entered into a second agreement with Iowa State University. Up until that time, ISU had owned and operated a separate drinking water treatment plant to serve the central campus. In 1976, ISU decommissioned its facility and entered into an agreement with the City of Ames to purchase water. Under the terms of the agreement, ISU pays for the water on a pro-rated basis, where they reimburse the City a percentage of the total operating cost of the water utility based on ISU's demand as a percentage of the total system demand. ISU also made a payment of \$600,000 over a period of 10 years that is described as compensation for "...taking up presently available utility capacity that has been previously financed by the City."

The agreement describes those specific ISU facilities that are covered by the agreement. Any outlying facilities not specifically identified in the agreement are considered to be "non-contract" accounts and are billed at the normal ordinance rate. That agreement was updated in 1978 and again in 1990. As a part of the 1990 revision, the previous agreement for the Applied Science Center was voided, and the Center was incorporated into the central campus contract.

National Animal Disease Center (NADC)

An agreement was executed between the City of Ames and the United States Department of Agriculture on July 2, 1975 by which the City agreed to provide drinking water service to the National Animal Disease Center at the same rate established for all other water customers within the City of Ames.

The agreement also established for the City to provide and charge the USDA for sewage treatment service, including treatment plant capital costs at an equitable rate based on its actual sewer use proportional to the total flow in the system. There was no provision for any one-time capacity reimbursement. The agreement was last updated in 1985.

National Veterinary Services Laboratory (NVSL)

Similar to the agreement with the USDA to serve the National Animal Disease Center, an agreement was signed in 1976 that addressed water and sewer service for the National Veterinary Services Laboratory. The description of the water service arrangements simply documented that the NVSL had paid the customary water connection fees and water meter installation fees and that the NVSL would be billed for water at the published rate schedule that applied to all water customers. The charge for sanitary sewer service is very similar to the NADC agreement. There was no provision for any one-time capacity reimbursement. The agreement was last updated on May 2, 1990.

Xenia Rural Water District

On October 22, 1996, the City entered into an agreement with Xenia Rural Water District to provide water on a wholesale basis for Xenia to redistribute to its customers. The agreement includes a provision whereby the City agrees to provide up to 250,000 gallons per day to Xenia at a unit rate that was established at the time of the agreement. That rate has increased over time in tandem with increases in the City's ordinance rate for other customers. The agreement included a one-time payment of \$280,550 for reimbursement to the City of existing capacity and associated expenses previously incurred. The agreement was last modified on June 24, 1997. Currently, Xenia is taking almost no water from its connection to Ames.

City of Kelley Wastewater

Financing for the "new" Water Pollution Control Facility was provided in large part by the federal Construction Grants Program. That program required that the grant applicant (Ames) evaluate the cost-effectiveness of regionalization (having smaller communities connect to a larger facility that can operate more efficiently). Ames completed the feasibility evaluation for a number of surrounding communities and determined that regionalization was not cost-effective. The one exception was the City of Kelley. Kelley was also applying for construction grant funds, and Kelley's consultant had performed an independent feasibility analysis and determined that connecting to Ames was the most cost-effective means of providing wastewater treatment for its community. With that determination already in place, providing Kelley with a sanitary sewer connection became a "string" attached to the grant funds for Ames.

The original agreement, dated September 24, 1975, included a limitation of 144,000 gallons per day. Kelley was responsible for the cost and construction of the pump station, force main, and their portion of the gravity outfall sewer. Kelley was to pay its proportionate share of the total operating and capital costs incurred by the City of Ames. There was no up-front capacity reimbursement provision. Because federal construction grant funds were being used to finance Kelley's connection, the U.S. EPA had to review and approve the agreement. That review was completed in 1977, and some small revisions were made on September 20, 1977 to resolve some U.S. EPA concerns. The agreement was again amended in 1985 as the City of Ames began its grant-funded construction to address new U.S. EPA requirements.

The original agreement was replaced with a new agreement in July 2005. Damage to a City of Ames sanitary sewer line caused by the discharge from Kelley had occurred, and it was determined that the original contract language did not allow Ames to recover the cost to repair that damage from Kelley. The new agreement included language stating that "...any costs directly attributed to Kelley's sanitary sewer discharge...shall be paid for by Kelley..." The current agreement includes billing provisions whereby Kelley pays a monthly minimum bill fee that is twice the established ordinance minimum bill for other customers and that the unit rate paid by Kelley will be 115 percent of the established ordinance rate. Should the strength of wastewater being discharged by Kelley exceed the established surcharge rates, Kelley will be billed 125 percent of the established surcharge rate. (This last provision has not been needed to date.)

2015 Request from City of Gilbert

During the summer of 2009, the Ames City Council gave its approval to a plan to design and construct a new 15-million-gallon per day water treatment plant. As a part of the discussion related to the size of the facility, staff suggested to Council that if there was any interest in exploring regionalization of the water utility, this would be the most opportune time to do so.

With Council's approval, letters were sent to the City of Gilbert and the City of Kelley inquiring if either community had an interest in considering a purchased water agreement. No response was received from Gilbert at that time. The City of Kelley responded with an invitation for Ames staff to attend a Kelley City Council meeting. Ames staff attended that meeting on September 8, 2009 and discussed how such an arrangement might be developed. No additional discussions took place at that time. In 2012, the City of Kelley again approached the City of Ames to inquire about the possibility of a wholesale water agreement. After extensive discussions, Kelley opted to enter into an agreement with Xenia Rural Water District instead of connecting to Ames.

Gilbert is now in the process of evaluating its options for expanding and improving their water and wastewater treatment systems. One of the options that their consultant has recommended is that they explore connecting to the City of Ames water and/or wastewater systems.

Based on water demand characteristics provided by Gilbert's consultant to Ames staff, the City of Gilbert has a current annual average water demand of approximately 76,800 gallons per day and a peak day demand of approximately 250,000 gallons per day. For comparison purposes, this would put the demand for the connection to Gilbert roughly in between the average day demands of Amcor (56,500 gallons per day) and Barilla (87,000 gallons per day). Gilbert's consultant has also provided an estimated average sewer demand of 87,000 gallons per day and an average peak 30 day demand of 250,000 gallons per day.

Gilbert's projected future average day demand of 147,500 gallons per day of drinking water would serve approximately 361 homes. It's presumed virtually all of the water would be for residential use as there are minimal commercial or industrial users in Gilbert. Gilbert has a 2010 population of 1,082 people. The population projections being used by their consultants for the year 2035 are a population of 1,863 with a projected total of 621 homes. These homes would likely be located on the south side of Gilbert, consistent with the Fringe Plan Urban Service Area designation.

Using the provisions of the wastewater agreement with the City of Kelley as a model, the estimated revenue generated from taking on Gilbert as a customer would be in the neighborhood of \$101,100 per year for water consumption and another \$101,400 for sewer, for combined revenue of approximately \$202,500 annually.

Staff has had a single preliminary meeting with Gilbert's consultants. At that time Ames staff explained that any agreement would need to include consideration of the following topics:

- Seasonal Rates. The rate structure for residential customers in Ames is a seasonally inclined block structure, with a flat rate in the winter and an inclining block rate in the summer. Some consideration should be included to a rate provision with Gilbert that accomplishes the same water conservation goals. In particular, the agreement should somehow ensure that a residence in the City of Gilbert is not able to excessively water its lawn at a cheaper rate than a residence within Ames.
- Water Rationing. The City of Ames has adopted an ordinance that allows mandatory water use restrictions to be implemented in stages based on the need for conservation. An agreement with Gilbert should somehow ensure that the same levels of restrictions are imposed and/or the same level of use reduction achieved, in the City of Gilbert as is targeted in Ames.

- Delineation between Systems. There are a number of different ways that the agreement could demark the separation point between systems. The simplest for Ames would be to follow the model that has been used with all other wholesale agreements; namely, Ames provides water, at whatever point in its existing system is closest or most convenient, through a single master water meter. The water would then be the responsibility of the City of Gilbert from the outlet of the meter, and Gilbert would continue to operate as a separate Public Water Supply and would be responsible for operating and maintaining its distribution system, metering, and billing its customers. Similarly, a single wastewater meter should be installed as close to the existing Ames collection system as is practical, and Ames would accept responsibility for the wastewater at that point. **Ames would not be responsible for maintaining the water distribution or sewer collection systems within Gilbert or north of the connections to the Ames systems. That responsibility would remain with the City of Gilbert.** That would be the form of agreement that Ames staff would recommend. Gilbert's consultant has indicated that this arrangement would also be preferred by Gilbert.
- Managing Excessive Wet-Weather Flows. A provision would need to be included that would ensure that Gilbert maintains their sanitary sewer system in such a way that peak flows of clear water are kept out of their system and are not delivered to Ames. One possible way this could be accomplished would be for the City of Gilbert to keep their existing sewage lagoon as a wet-weather flow equalization basin.
- Non-domestic Users. The City of Ames is required by state and federal rules to regulate non-domestic dischargers into its system to ensure that the treatment works are not negatively impacted by improper discharges. Some provision would be needed to either extend authority by the City of Ames to monitor and control non-domestic users in Gilbert, or to ensure that the City of Gilbert adopts and enforces similar requirements.

In addition to these utility-related issues, the provision of water and sewer service by Ames outside its city limits could have clear land-use implications. Per the Fringe Plan, growth areas for Gilbert are on the south side of the town focused around Grant Avenue and approximately 1.5 miles north of the City of Ames. If the City of Ames were to provide utility services to Gilbert it should be aware of its support of growth and to ensure Gilbert's growth is consistent with the Fringe Plan and only available to development within the boundaries of the town of Gilbert.

STAFF COMMENTS:

The challenges being faced by the City of Gilbert are not unique and are not reflective of a lack of care by that community. As regulations become more complex, it becomes increasingly difficult for smaller communities to afford the systems and staff necessary to comply. The trend of regional consolidation of water and sewer services is a well-established phenomenon where larger systems are able to absorb the additional flows at a more economical unit cost.

Ames has a history of providing water and wastewater services on a wholesale basis extending back nearly 70 years. It has proved to be the most cost-effective means for entities such as Iowa State University, the USDA research facilities, the City of Kelley, and Xenia Rural Water District. While care is always taken to develop contractual language that protects each party's interests, **any contractual agreement runs the risk to either party of an unforeseen condition arising that was not anticipated or fully addressed by the agreement.**

Based on the annual average water and sewer demand data provided by Gilbert's consultant, the annual revenue from an agreement is estimated to be in the neighborhood of \$202,500. While the financial advantages to Ames are not huge, there is some benefit to spreading the fixed costs of the utility over an additional number of gallons. There is also the societal advantage of being a "good neighbor" by partnering with a neighboring community.

Possible downsides for the City of Ames include the staff time that will be necessary to negotiate the agreement and oversee the connection, and the risk of an unanticipated liability not accounted for in the agreement. Equally important is the fact that if not handled correctly, this type of arrangement could impact land use in the fringe area and promote sprawl outside of our city.

As far as the net impact of the increased demand on the available water supply and sewage treatment capacity for the City of Ames, the likely demand from this proposed agreement would be similar to adding another single industrial customer. Therefore, it appears that the increased demands are within Ames' existing capacities, and are small enough that they would not be a sole determining trigger for any future expansion.

Should the Council believe that the advantages to such an arrangement outweigh the disadvantages, then the Council could direct the staff to pursue discussions with the City of Gilbert with the intention of negotiating an agreement for wholesale water and/or sanitary sewer service that addresses the utility and land use issues described above.