ITEM #: 4

Staff Report

REVISIONS TO CHAPTER 28 AND APPENDIX N OF THE AMES MUNICIPAL CODE (UTILITIES)

October 17, 2017

BACKGROUND:

Staff has prepared a series of updates to Chapter 28 to address a number of different goals.

- To better reflect current practice by City staff. (For example, with the start of the Automated Meter Reading (AMR) project, changes to the Code were necessary to reflect the new technology and its requirements.)

- To provide additional flexibility to Water & Pollution Control, Utility Customer Service, and Public Works when addressing the needs of customers.

- To use more uniform nomenclature throughout the Code, and to better reflect the common terminology being used in the industry today.

In the narrative below, each of the changes are identified, with a brief explanation of the reasoning behind the change. Items in red are additions and items with strikethrough are deletions.

The presentation at the October 17 Council workshop is informational only.

- **If Council is comfortable with the proposed changes, no action will be needed at the workshop.** Staff will bring the Chapter 28 changes to the City Council in ordinance form on October 24 for the first of three readings; and will bring the revised Industrial Pretreatment Program document to Council for adoption that same night. The Pretreatment Program revisions are loosely related to the Chapter 28 revisions, and are a combination of updates being recommended by staff and required modifications to the program being directed by the US EPA. In order to meet a US EPA deadline to certify the changes to the Industrial Pretreatment Program by December 15, the third and final reading of the ordinance needs to occur at the final Council meeting in November. Staff will also present the revision to Appendix N on October 24 for adoption by resolution.

- **If, however, there are elements that Council wishes to handle differently than is proposed, direction on those changes would be necessary at the workshop.** That will allow staff to make the requested changes so that Council is comfortable approving the ordinance on October 24, and thus meeting the deadline set by the US EPA.

STAFF COMMENTS:

A significant change being proposed is the requirement for individual water meters for apartment and commercial buildings with the edits to Section 28.214 (Page 12). This requirement is recommended primarily as a means to encourage water conservation and provide better water accountability. The Water and Pollution Control Department surveyed larger utilities in the State, and while most utilities do not have this requirement, the utilities in Boone, Des Moines, Cedar Rapids, Ft. Madison and Waterloo do have a requirement for individual meters for apartment and commercial buildings.

PROPOSED CHANGES TO THE CODE:

Reflected below are the specific changes being recommended to Chapter 28.

Sec. 28.201. WATER RATES AND CHARGES

The rates and charges for water supplied to consumers by the water utility of the city, to be billed on or after July 1, 2010 are as follows:

(2) ***Non-residential (Commercial) Rates***

(a) ***Availability.*** *The non-residential rate shall apply to all accounts that do not meet the criteria for residential, irrigation and yard water, rural water, or ~~preferred~~ non-peaking industrial* rates

(8) ***Multiple dwellings – Mobile home parks.*** *Existing multiple dwellings, including mobile home parks, may continue to be ~~serviced~~ served from a single water meter. However, there shall be a surcharge added to the water rates set forth above, to be calculates as follows:*

Staff Comment: Changes to Section 28.201(2) and (8) are minor text changes to be consistent with nomenclature used elsewhere in the Code.

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(9) ***Unintentional Summer Water Use.*** *During the summer billing periods, the City Manager or the Manager's designee shall have the authority to approve an adjustment to a customer's water, yard water, or irrigation charges if there was unintentional water usage as the result of a malfunction of an appliance or a plumbing fixture (e.g. water heater, washing machine, toilet, or irrigation system) and the unintentional usage exceeds the customer's average summer usage by at least one thousand cubic feet. To be eligible for an adjustment, the customer must provide documentation from the person who repaired the malfunction (e.g. plumber, maintenance worker) which describes the cause of the malfunction and the action taken to correct the malfunction. The amount of the adjustment shall not exceed the difference between the actual water, yard water, or irrigation charges billed and the charges that would have been billed using the winter rate.*

Staff Comment: Staff recommends a new paragraph be added to Section 28.201 to address issues that arise when a customer has a leak during the summer billing periods. Council has had to address each of these issues as they come up. The new language proposed would give staff the ability to make the appropriate adjustments without needing council action for each instance.

Sec. 28.203. METERS FURNISHED AND OWNED.

(1) All water meters shall be furnished and owned by the City. The customer shall pay for the water meter(s) according to the current schedule of fees for meter installations as stated in Appendix Q of the Municipal Code.

(2) The type and size of meter(s) to be installed may be reviewed with the customer or customer's representative, but the Water and Pollution Control Department shall have final authority to ~~set~~ select the meter(s) considered most appropriate for the proposed installation. No water meter shall be set nor shall the water service be turned on unless the location and setting comply with the Code and all fees and deposits have been paid. If any customer requests a meter for a new installation and has any unpaid fees or charges for other locations, no new meters shall be set until all fees and charges are paid in full.

(3) Locations with irrigation systems may be required to install a separate meter and have a separate utility account for the irrigation system. The requirement for a separate meter will be based on maintaining accuracy and accountability and will be determined by the Water and Pollution Control Department.

(Ord. No. 854, Sec. 45; Code 1956, Sec. 31-45; Ord. No. 3199, Sec. 1, 9-24-92)

Water Meter Sizing Guide

Maximum Number of Fixture Units As Determined from UPC Table 6-4 to Size Service Lines and Meters	*Normal Operating Flow Range In gallons per minute (gpm)*	*Meter Size Typical Residential and Commercial Applications with Flush Tanks*
29	*¼ - 20*	*5/8" x 3/4" Positive Displacement*
52	*¼ - 30*	*3/4" Positive Displacement*
125	*½ - 50*	*1" Positive Displacement*
275	*1 – 80*	*1½" Positive Displacement or Ultrasonic*

Staff Comment: These changes to Section 28.203 to address new construction. In recent years, there has been an increase in the number of new irrigation systems for commercial locations. In the interest of accountability, the City is requiring a separate meter for these irrigation systems. The City has had great cooperation from builders and developers in implementing this but the current practice is not reflected clearly in the Code. This will help accomplish that objective.

Sec. 28.204. METER TO REMAIN WHERE INSTALLED

(3) Only employees of the Water Meter Division are authorized to remove meters except as provided in Section 28.210(2). A resetting fee, at the current rate stated in appendix Q of the municipal Code, shall be assessed for removal of a meter without authorization.
(Ord. No. 854, Sec. 46; Code 1956, Sec. 31-46; Ord. No. 3199, Sec. 1, 9-24-92)

Staff Comment: The addition to Section 28.204 is to clarify where the resetting fee for a meter is specified in the Municipal Code.

Sec. 28.205. LOCATION AND ACCESSIBILITY

*(1) **Basement mechanical room.** The water meter(s) shall be located in the basement or mechanical/utility room if one is provided. The ~~master~~ water meter(s) shall be placed where the water service line comes through the basement wall or basement floor. Where no basement is provided, the ~~master~~ meter(s) shall be placed where the service line comes through the floor of the utility room. Meters shall be indoors and protected from freezing. A floor drain shall be located in the room containing the meter(s). Meters cannot be located above the first or ground floor level under any conditions. Only the individual water meter(s) serving a dwelling unit can be located within the private occupancy space of that dwelling unit.*

*(2) **Multi-family dwellings.***

(a) In a duplex, the preferred meter location is in ~~the~~ a joint basement or mechanical room. If this is not possible, ~~each~~ individual meter(s) must be in the private occupancy area (utility room, for example) of that dwelling unit.
(b) In multi-family dwellings on one level, the preferred meter location is in a joint mechanical, utility, or meter room. However, with prior approval, individual meters may be located in the utility room of each dwelling unit.
(c) In multi-family dwellings on more than one level, meters shall be ~~congregated~~ located in one or more mechanical/utility or meter rooms in the basement or first floor level of the building where the service line comes through the wall or floor. ~~Location of~~ Individual meters in each ~~individual~~ utility room or apartment is prohibited~~. In an apartment complex where a mechanical room is not provided, a water meter room shall be provided at the point~~ A floor drain must also be provided in this area.

~~*(3) All meters shall be placed within 30" and no more than 42" from where the water service first penetrates the floor or wall of the structure.*~~

(4) ***Meter setting height.*** *Single water meters shall be set at a height not less than 30 inches and not more than 42 inches above the finished floor. A minimum of 18 inches of clear space is required above and below the meter and a minimum of 36 inches of clearance is required in front of the meter for maintenance purposes.*

(a) Multiple water meters may be stacked vertically, ~~either directly above or~~ and offset, within general limits of not less than 20 inches and not more than 48 inches above the finished floor. A scaled drawing of the proposed manifold installation shall be submitted to the Water and Pollution Control Department for review and approval. A master shut-off valve shall be provided where the meter manifold is connected to the building's domestic water service. The meter manifold shall be located in a common mechanical room accessible for meter maintenance and reading purposes. The piping on the discharge side of each meter shall be permanently labeled for the corresponding unit served. For commercial installations, access to the meter room by means of an exterior door is recommended. Refer to the Reference Guide for Obtaining Permits and Utility Services for New Construction for an example of a typical manifold installation.

(b) When a backflow assembly for containment is installed where a meter manifold is present, the assembly shall be installed according to the requirements of Section 5.208. (8)(b)(viii) of the Municipal Code.

(c) For manifold installations where non-metallic pipe is used for supply piping, a minimum of 24 inches of rigid pipe shall be installed on the vertical rise on the discharge side of the water meter. The discharge piping shall be attached directly to the wall to maintain proper spacing and alignment for the meter setting.

(5) ***Accessibility.*** *All water meters shall be in an accessible location. There shall be no obstruction or storage of other materials preventing access to the meter. The meter shall not be placed above or behind a furnace, water heater, washer or dryer, or other such arrangement limiting access to the meter. ~~No shelf may be placed less than two feet above any meter.~~ For meters one inch and smaller, a minimum of ~~two feet~~ 18 inches of ~~working~~ clearance ~~around~~ above and below the meter ~~is necessary~~ and a minimum of 36 inches in front of the meter is necessary for meter maintenance and routine change. For meters larger than one inch, a minimum of 24 inches ~~three feet~~ of working clearance ~~around~~ above and below and 36 inches in front of the meter is necessary for maintenance purposes.*

(Ord. No. 3199, Sec. 1, 9-24-92)

(6) ***Access Granted.*** *As a condition of service, all customers must consent to provide access to the property for the purposes of meter reading, and to perform routine and emergency service and maintenance of the water meter. Failure or refusal to grant access may result in termination of water service.*

(Ord. No. 4010, 09-22-09)

Staff Comment: Access to meters, especially in commercial and apartment buildings, can be a challenge. To address this issue, staff has provided guidance to developers and plumbers through an informational pamphlet. Staff feels it is appropriate to adopt language in the Code to give specific clearance requirements for meter access. The requirements called out above in red are current requirements that have been used for quite some time; the changes simply adopt them into the Code.

Sec. 28.207. METER ACCESSORIES

(1) ***Bypass****. A valved bypass line shall be provided for every commercial water meter installation ~~1½~~ 5/8" x 3/4" inch and larger so that the meter can be removed without interrupting service to the customer. ~~It is recommended that valved bypass lines be provided for smaller meter installations where interruption of service is not acceptable to the customer.~~ All valved bypass lines shall be equipped with a ball valve with a locking mechanism which shall be closed and sealed by the Water Meter Division. If the seal is broken for any reason except as may be authorized by the Water Meter Division, the customer shall be billed for unauthorized use of water at the current rate stated in Appendix Q of the Municipal Code.*

(2) ***Jumper wire.*** *All water services constructed of metallic pipe material shall have a jumper wire installed around the water meter to ground the water ~~service~~ piping when the water meter is removed for testing or maintenance. A jumper wire is not required where meter installations are equipped with a meter bypass constructed of metallic pipe material. ~~All water services constructed of metallic pipe materials shall be permanently grounded in a manner that allows the water meter to be removed for testing or maintenance without interrupting the ground. The grounding shall be provided by the required meter bypass, constructed of metallic pipe materials, or a jumper wire.~~ The use of the water service as a primary ground for the electrical, telephone, cable TV, or other systems is prohibited. In the event the water service is constructed of non-metallic pipe material, neither primary nor secondary grounding is permitted. If a water service is constructed of non-metallic pipe material, a jumper wire is not required.*

(3) ***Water Meter Supports.*** *If a water service is constructed of non-metallic pipe material, the water meter shall be supported or mounted in an approved manner at the location specified in Sec. 28.205. Acceptable supports include a shelf attached/anchored to the building wall or a steel support anchored in the concrete floor. The support shall be of sufficient strength to hold the weight of the meter and accessories. A temporary support may be used for construction meters.*

(Ord. No. 3199, Sec. 1, 9-24-92)

Staff Comment: Interruption of service for meter maintenance is something certain customers are reluctant to allow. The language is proposed to require all commercial

customers, with a one-inch meter or larger, to install a meter by-pass. Staff also added a provision that any customer that could not have water service interrupted is allowed to have a meter by-pass installed. This allows the customer to have a constant water supply and makes scheduling the meter change easier for the customer and City staff. Clarifying language has been added to the requirements for a jumper wire around the meter, and a requirement for a sort piece of rigid piping to stabilize the water meter when PEX or other flexible piping materials are used.

Sec. 28.208. METER PITS

Meter pits will generally not be approved because of the difficulty and safety hazards in meter reading and maintenance. For meter installations one-inch and smaller, pre-fabricated meter pits which do not require entry may be approved by the Water and Pollution Control Department. Installations for meters larger than one-inch, especially those requiring a backflow prevention assembly, shall be installed above grade in an enclosed structure and insulated and/or heated to prevent freezing. ~~If no other alternative is available, a meter pit constructed in accordance with Water and Pollution Control Department specifications may be approved.~~
(Ord. No. 3199, Sec. 1, 9-24-92)

Staff Comment: Meter pits pose a safety issue for City staff. This language clarifies their allowed use in limited applications.

Sec. 28.209. RADIO READ DEVICE

(1) ***New meter installations.*** *All new water meter installations shall have a radio read device. ~~remote reading register placed on the outside of installed inside the building or residence.~~ Any residential dwelling units located within the City of Ames municipal electric service territory may have the radio read device located inside the dwelling. ~~remote register within three feet of the electric meter~~ All commercial buildings, located within the City of Ames municipal electric service territory, and any residential or commercial buildings located outside of the City of Ames municipal electric utility territory, shall install for each meter a 22/3 gauge, stranded, shielded wire with plastic sheath from the water meter on the inside of the building to within three feet of the electric meter on the outside of the building. Meters located in meter pits or vaults shall have the radio read device located inside the pit or vault, or located in a pedestal near the meter pit or vault. If the electric meter is located on a transformer, or other remote location, the wiring for the radio read device shall terminate on the side of the building nearest the transformer or remote location. A minimum of three feet of excess wire shall be left*

at each end to allow connection to the water meter and installation of the radio read device. Any portion of the wire that will not be exposed (i.e. installed behind finished walls, above finished ceilings, etc.) shall be placed in conduit to protect the wire from damage and to facilitate replacement if necessary. The City will provide and install the radio read device and connect it the customer-installed wire.
(Code 1956, Sec. 31-29.1; Ord. No. 2073, Sec. 1, 5-11-65; Ord. No. 2416, Sec. 2, 9-26-72; Ord. No. 3199, Sec. 1, 9-24-92)

(3) ***Rural Water customer remote readers.*** *Rural customers shall provide a mounting location for a radio read device that will facilitate easy access for meter reading. For locations that are served by the City of Ames municipal electric utility territory, the radio read device shall be placed within three feet of the electric meter wherever practical. Alternate locations and installation requirements shall be approved by the Water and Pollution Control Department prior to installation of the water meter.*

It shall be the responsibility of the customer to maintain an adequate clearance around the remote reading device to prevent landscaping, snow drifts or piles, or other obstructions from interfering with access to the radio read device for meter reading, service, or maintenance. (Ord. No. 4010, 09-22-09)

Staff Comment: City staff has been successfully installing a new Automated Meter Reading system for two years. The Code needs to be updated to reflect the requirements of this new technology. In particular, there is a need to address the requirements of this system when the water service is located outside of the City of Ames Electric Services' territory. Within the electric services territory, the electric meters will serve as a mesh network to transmit the readings. Outside of the electric service territory, collectors will need to be installed to capture the meter readings and transmit them for billing. The water meter radios will transmit the signals directly to the collectors. As a result, all radio ERTs need to be located on the outside of residences that exist outside of the electric service territory.

Sec. 28.209A. RURAL CUSTOMER BACKFLOW PREVENTION. *For all water customers outside the Ames corporate limits, a ~~testable backflow prevention device~~ reduced pressure principle backflow prevention assembly (RP) shall be required for containment.*

(1) ***Location.*** *The ~~backflow prevention device~~ reduced pressure principle backflow prevention assembly (RP) shall be installed directly after the meter.*

(2) ***Installation.*** *It is the responsibility of the customer to provide this device and it shall be installed by a plumber licensed by the City of Ames pursuant to a plumbing permit acquired from the City of Ames, and installed in compliance with all Plumbing Codes applicable in the City of Ames.*

(3) ***Maintenance/Testing.*** *The ~~device~~ reduced pressure principle backflow prevention assembly (RP) shall be tested upon installation and at least annually thereafter by a registered backflow prevention assembly technician. Results of all backflow prevention assembly test reports shall be submitted to the Water Meter Division within 10 working days of when the device was tested.*

It is the responsibility of the customer to maintain the ~~backflow prevention device~~ reduced pressure principle backflow prevention assembly (RP).

If backflow occurs at a rural water location, the customer shall comply with provisions of Ames Municipal Code Sec. 21.501(47) (b) (xii).

Failure to perform the required testing at least annually, or to maintain the device in good repair, may result in termination of service.

(Code 1956, Sec. 31-29.1; Ord. No. 2073, Sec. 1, 5-11-65; Ord. No. 2416, Sec. 2, 9-26-72; Ord. No. 3199, Sec. 1, 9-24-92; Ord. No. 4010, 09-22-09)

Staff Comment: Changes to Section 28.209A are to adopt the common nomenclature used in the industry.

Sec. 28.212. HYDRANT METER

As a general rule, hydrant meters will not be allowed except under unusual circumstances. Prior approval of the Water and Pollution Control Department is required. ~~A fee shall be charged for setting and removing each hydrant meter. In addition, a deposit is required before each hydrant meter is set. The deposit less damages, if any, will be returned after the hydrant meter is removed.~~ *The customer shall complete a Hydrant Meter Application form to request a hydrant meter. All fees and charges, including any damage to the hydrant, hydrant meter, or backflow prevention assembly, will be billed to the customer when the hydrant meter is removed from service. A monthly fee, based on the meter size, will be charged for use of the hydrant meter. If the hydrant meter is used fewer than 30 days, the monthly charge will be prorated on a daily basis. Please refer to Appendix Q of the Municipal Code for current fees. Only employees of the Water Meter Division are authorized to install and remove or move a hydrant meter.*

(Ord. No. 854, Sec. 40; Code 1956, Sec. 31-48; Ord. No. 3199, Sec. 1, 9-24-92)

Staff Comment: With the increase in commercial construction there has been an increased need for hydrant meters. The practice was changed to charge a monthly fee for the use of the hydrant meter. This was done to encourage contractors to keep the hydrant meter only as long as necessary. This section was expanded to give more detail about this practice.

Sec. 28.213. UNMETERED WATER USE

Unmetered water use at any location for any purpose, without prior authorization from the Water and Pollution Control Department, shall be billed at the rate, ~~set by city council~~ *stated in Appendix Q of the Municipal Code,* per occurrence or per month, whichever is greater. *The exception would be to use water to perform a water test for the sanitary sewer, drain, or waste and vent piping within a structure.* In addition, any damages shall be charged to the person using the water without authorization. Authorized use of water without a meter will be billed at the rate ~~set by city council~~ listed in Appendix Q of the Municipal Code. To initiate or terminate this service the customer shall make such request through the *Water Meter Division.* ~~Customer Service Division of the Finance Department.~~

(Ord. No. 854, Sec. 40; Code 1956, Sec. 31-48; Ord. No. 3199, Sec. 1, 9-24-92)

Staff Comment: Edits to Section 28.213 provide some clarification to plumbing contractors on specific instances where unmetered water use would be allowed.

Sec. 28.214. OWNERSHIP AND REPAIR, WATER SERVICE CONNECTIONS

All service connections with the city water supply from the main to the meter, including the corporation cock, service line, curb cock and curb box, and shut-off valves for the meter setting, shall be installed and maintained at the expense of the property to be served. Ownership of the entire service connection remains with the property. Whenever any part of the water service line between the main and the consumer's meter develops a leak or becomes out of repair, it shall be the duty of the ~~City Manager to notify~~ the property owner, ~~the property owner's legal agent, or the consumer of~~ to repair the defect. Leaking water services which are constructed of galvanized ~~service line~~ iron piping ~~materials~~ shall be replaced entirely between the water main and the meter with a water service line of proper size and approved material. The Administrative Authority may require replacement of leaking water services made of other non-approved materials if it is determined that the condition of the service line presents safety or sanitary concerns. To prevent or reduce damage to public or private property, the City Manager or his designee shall, if the owner ~~or consumer~~ does not act to correct the defect within fourteen (14) calendar days after notice, cause the discontinuance of water service to the premises. The City Manager is authorized to discontinue service or repair service leaks without prior notice to the property owner or tenant in emergency situations to prevent service interruption, damages,

or injury to others. Any costs incurred by the city for excavation and replacement, and repair of damages to property caused by such, shall be charged to the owner and may be assessed as a lien against the property as provided in Sections 384.62 and 364.12 Code of Iowa.

(1) For the purpose of accountability, Apartment Dwellings, Condominiums, Commercial Buildings, Dwelling House, Family Home, Single-Family, Single Family Attached, Two-Family Attached, Efficiency Unit Dwellings, Manufactured Homes, and Mobile Homes (by means of individual meter pits), shall be individually metered. Assisted Living Facilities, Congregate Housing, Hospice Facilities, Hospitals, Hotels, Independent Senior Living Facilities, Nursing Homes, Residential Corrections Facilities, and Sorority or Fraternity Facilities would not be required to meter individual dwelling units. Requirements and exceptions are based on definitions stated in Section 29.201 of the Ames Municipal Code.

(Ord. No. 3199, Sec. 1, 9-24-92)

Staff Comment: Edits to Section 28.214 clarify the ownership of the shut off valves. In addition, clarification is provided on who is responsible for repairing the service line and City Manager notification is no longer prior to a property owner being responsible to repair a service line. **A significant change being proposed is the requirement for individual water meters for apartment and commercial buildings.** This requirement is recommended primarily as a means to encourage water conservation and provide better water accountability. The Water and Pollution Control Department surveyed larger utilities in the State, and while most utilities do not have this requirement, the utilities in Boone, Des Moines, Cedar Rapids, Ft. Madison and Waterloo do have a requirement for individual meters for apartment and commercial buildings. A description of the public outreach on this proposed change is provided near the end of the report.

New Section 28.214(1)

*(1) **Lead Service Line Replacement.** Any service line that contains any lead piping, fitting, fixture, solder, or other component; and, that develops a leak or otherwise becomes out of service shall be replaced.*

(a) It shall not be lawful to leave any lead component in service when repairing or replacing a water service line.

(b) Where the service line is composed entirely of lead pipe, or consists of a mix of lead and galvanized piping materials, the service line shall be replaced in its entirety, from the point of connection to the City water main to the master water meter for the property.

(c) Where the service line consists of a lead "pigtail" or "gooseneck" between the water main and the curb stop box, and consists of copper or plastic from the curb stop box to the water meter, only the portion between the water main and the curb stop must be replaced.

(d) The cost of such replacement shall be the responsibility of the property owner.

(2) Any lead service line encountered during a City water main replacement project shall be replaced by the City. The cost shall be borne by the water utility as a part of the project, and shall not be passed on to the property owner.

Staff Comment: The purpose of the new section related to lead service lines is to require the replacement of these lines when in disrepair. The Code currently would not require a property owner to replace the entire service line. Studies published in water industry trade journals show that partial replacement of lead service lines can result in even higher lead levels at the tap than if the lead service line had not been touched. It is expected that updates to the EPA's lead and copper rule in the next couple of years will not allow for partial lead service line replacements.

Sec. 28.215. DISCONNECTION AND RECONNECTION OF WATER SERVICE -- CHARGES.

When requested by the customer, the city will cause the water to be turned off at the curb stop ~~box~~, provided the curb stop is in working order and is accessible. A fee may be charged to the customer for this ~~the~~ service. The cost of locating and servicing an inaccessible or damaged curb cock or curb box will be at the expense of the customer ordering discontinuance of service. Should it become necessary to cut off the water at the corporation cock in the main, the expense thereof shall be charged to the owner of the premises. ~~Water rents~~ All utility bills and service charges will be made until notice of discontinuance of service is given to the city at the office of the Finance Director. When water service is discontinued, all ~~water rentals~~ utility bills and service charges of the city for water service to the customer shall be immediately due and payable. When service is ~~temporarily~~ disconnected ~~at the request of the customer or~~ for non-payment of bills, a charge may be made for disconnecting and reconnecting the service. Customer requested water service reconnection and disconnection is subject to a fee for each service call/trip as stated in Appendix Q of the Municipal Code.

(Ord. No. 854, Sec. 22; Code 1956, Sec. 31-22; Ord. No. 2009, Sec. 1, 12-17-63, Ord. No. 2550, Sec. 2, 7-6-76; Ord. No. 3199, Sec. 1, 9-24-92)

Staff Comment: Section 28.215 provides some language clarification related to the disconnection and reconnection of water service and the associated fees with these services.

Sec. 28.302. DEFINITIONS.

Unless the context specifically indicates otherwise, the meaning of terms used in this ordinance shall be as follows:

*(6) **'High Strength Surcharge'** shall mean a system to assess a sewer surcharge to any contributor discharging wastewater that is higher in concentrations of COD, TSS, TKN, and/or Oil & Grease than normal domestic wastewater. Concentrations of normal domestic wastewater are defined as follows; COD – 550 mg/L, TSS – 300 mg/L, TKN – 45 mg/L, and Oil & Grease – 300 mg/L.*

*(7) **'Local Limits'** shall mean discharge limits determined by a treatment plant headworks calculation on local facilities.*

Staff Comment: Staff have added definitions of High Strength Surcharge and Local Limits for better clarification. The list of other definitions will be renumbered to allow the new definitions to be inserted alphabetically.

Sec. 28.304. SEWER RATES ESTABLISHED.

(9) Where a "yard meter" is not installed, but it appears in any month that more than ~~two~~ one thousand (~~2,000~~ 1,000) cubic feet of water was used in a way that the water did not reach the sanitary sewer, that amount of water shall be exempt from the sewer rate on application to the City Manager or the City Manager's designee. The total exemption allowed under this provision shall be granted over no more than two consecutive billing periods. (Ord. No. 3950, 05-13-08; Ord. No. 4003, 08-11-09)

(11) For those users which operate Food Service Establishments licensed by the State of Iowa, a Restaurant Surcharge, Restaurant Fee, or High-Strength Surcharge Rate, in addition to the normal user charge, shall be collected. The Restaurant Surcharge, Restaurant Fee, and High-Strength Surcharge Rate shall be listed in Appendix Q.

(a) Users which are billed for sewer usage shall be assessed the Restaurant Surcharge.

(b) Users which are not billed for sewer usage or whose sewer usage is not representative of the facility's food service activities shall be assessed the Restaurant Fee.

(c) Users whose sanitary sewer discharge flows through an outfall monitored by the City of Ames Industrial ~~Waste~~ Pretreatment Program shall be assessed a High-Strength Surcharge Rate that includes the surcharge for Oil and Grease as calculated based on their sampling results. (Ord. 4199, 11-25-14; Ord. No. 4263, 6-28-16)

Staff Comment: The reduction in the size of leak needed to be eligible for an adjustment was a request by Utility Customer Service in an effort to provide more flexibility in making adjustments to customers' bills, and is consistent with the new wording added for similar issues with a water leak. The elimination of the word "Waste" from the title of the "City of Ames Industrial Pretreatment Program" is to make the nomenclature in Chapter 28 match the Pretreatment Program document. This title change has been made elsewhere in the Code revisions as well.

Sec. 28.305. SEWER SERVICE, CONNECTION CHARGE.

(1) There is established hereby, as a fee for connection to the sanitary sewer main, such charge as the City Council shall by resolution set for the property served by and adjacent to the main, provided that no sanitary sewer utility special assessment has been made previously with respect to said adjacent property and the sanitary sewer was financed with funds of the city.

(Ord. No. 2928, Sec. 1, 7-2-85; Ord. No. 3199, Sec. 1, 9-24-92; Ord. No. 3204, Sec. 1, 12-8-92; Ord. No. 3209, Sec. 1, 12-8-92; Ord. No. 3565, 5-23-00

(2) ADD NEW SECTION

OWNERSHIP AND REPAIR, SANITARY SEWER LATERAL

All service connections with the City sewage collection system beginning at the sewer main and extending to the building or structure, including the wye connection at the sewer main, shall be installed and maintained at the expense of the property to be served. Ownership of the entire service connection remains with the property.

(a) Whenever any part of the sewer lateral between the main and the building or structure develops a leak or otherwise becomes out of repair, it shall be the duty of the property owner to repair the defect.

(b) Any repairs or replacement shall be made with approved materials.

(c) The Administrative Authority may require the complete replacement in lieu of allowing a repair to damaged sewer laterals made of non-approved materials if it is determined that the condition of the service line presents safety or sanitary concerns.

(d) To prevent or reduce damage to public or private property, the City Manager or his designee shall, if the owner or consumer does not act to correct the defect within 14 calendar days after notice, cause the discontinuance of sewer service to the premises. The City Manager is authorized to discontinue service or repair service damage without prior notice to the property owner or tenant in emergency situations to prevent service interruption, damages, or injury to others. Any costs incurred by the City for excavation and replacement, and repair of damages to property caused by such, shall be charged to the owner and may be assessed as a lien against the property as provided in Sections 384.62 and 364.12 Code of Iowa.

Staff Comment: The addition of a new section in 28.305 clarifies that the sewer lateral is owned by the property owner, and that the obligation to maintain it in good repair is the responsibility of the property owner. It is not a change in ownership or responsibility to maintain the lateral; it simply adds a clear statement that mirrors existing language in the Code for the water service line.

Sec. 28.306. GENERAL PROHIBITIONS FOR WASTE DISPOSAL IN THE SEWER.

(Ord No. 3526, 6-22-99)

(6) Any trucked or hauled pollutants, except at discharge points designated by the City when delivered by licensed haulers.

Sec. 28.307. INDUSTRIAL PRETREATMENT REQUIREMENTS.

All discharges of wastewater, gases, or solids which are not similar to domestic sewage shall meet the following pretreatment requirements.

(1) City of Ames ~~Non-Domestic Waste~~ Industrial Pretreatment Program as adopted and amended from time to time by city council resolution.

(7) All users who are significant or minor ~~non-domestic waste contributors~~ industrial users as defined in the revised Ames Industrial ~~Non-Domestic Waste~~ Pretreatment Program shall have obtained a permit from the city pursuant to said program before discharging non-domestic wastewaters. Any contributor now discharging pursuant to a contract shall be issued a permit within six (6) months of approval of the revised Ames ~~Non-Domestic Waste~~ Industrial Pretreatment Program.

Staff Comment: Edits to the sections above are to help create uniformity in nomenclature between the Municipal Code and the Industrial Pretreatment Program.

Sec. 28.308 FATS, OILS, AND GREASE CONTROL PROGRAM.

(3) FSEs subject to the FOG Control Program may apply for exemption from the Restaurant Surcharge/Restaurant Fee. Exemptions shall utilize evidence gathered in the preceding six (6) month period to determine whether an FSE is exempt from the Restaurant Surcharge/Restaurant Fee for sewer bills mailed during the following six (6) month period. Exemption periods shall be from January to June and from July to December.

(4) The use of any additive into a grease interceptor, grease trap, or other on -premise plumbing for the purpose of "treating" FOG shall be prohibited unless prior approval is granted by the Director of Water and Pollution Control.

(c) To be approved, products must be composed of non-emulsifying active biological additives designed to decompose the grease in the grease trap or grease interceptor.

(ii) Examples of products that are not approved are those that include, but are not limited to, the following types of components:

(f) Other components that are deemed to be otherwise incompatible with the purpose of the FOG Control Program or the municipal sewerage system as described in Section 28.306.

(5) The Director of Water and Pollution Control, or designee, may exempt an FSE from the Restaurant Surcharge/Restaurant Fee for a six (6) month period if one of the following criteria is met during the preceding six (6) month period:

(a) Submission of records of grease interceptor cleanings occurring in the previous six (6) months. If a grease interceptor is not cleaned during the previous six (6) months, the reason(s) for this must be submitted to and approved by the Director of Water and Pollution Control or designee. Such records shall include the following information:

(iii) The quantity of grease removed during each cleaning.

(a) In the case of a gravity-flow grease interceptor, the quantity of grease shall be calculated by comparing the depth of the floating fats, oils, and grease, plus the depth of the accumulated solids, and dividing that depth by the total depth of the unit (the design liquid level), expressed as a percentage. The measurements shall be taken in the compartment nearest the inlet of a multi-compartment grease interceptor and in the interceptor immediately preceding connection to the sanitary sewer when more than one interceptor is installed in series and in all interceptors when more than one interceptor is installed in parallel. In instances where an interceptor requires cleaning multiple times during the six (6) month review period, records shall be submitted for each cleanout. The owner or operator of the FSE shall require the grease interceptor to be cleaned when FOG and solids reach 25% or less of the design liquid level of the grease interceptor. When multiple cleanouts are required during a review period, the level of FOG and solids from each cleanout shall average 25% or less and no single instance shall equal or exceed 35%.

(b) In the case of a hydromechanical grease interceptor, the quantity of grease shall be calculated by comparing the depth of the floating fats, oils, and grease, plus the depth of the accumulated solids, and dividing that depth by the total depth of the unit (the design liquid level), expressed as a percentage. The measurements shall be taken in the compartment nearest the inlet of a multi-compartment grease interceptor, in the interceptor immediately preceding connection to the sanitary sewer when more than one interceptor is installed in series and in all interceptors when more than one interceptor is installed in parallel. In instances where an interceptor requires cleaning multiple times during

the six (6) month review period, records shall be submitted for each cleanout. The owner or operator of the FSE shall require the grease interceptor to be cleaned when FOG and solids reach 25% or less of the design liquid level of the grease interceptor. When multiple cleanouts are required during a review period, the level of FOG and solids from each cleanout shall average 25% or less and no single instance shall equal or exceed 35%. In situations where a hydromechanical grease interceptor is not able to be measured prior to cleanout, it shall be required that the interceptor be cleaned on a monthly basis.

(b) Submission of a laboratory test to determine the oil and grease content of typical wastewater discharge. Such tests shall be conducted by a laboratory certified by the State of Iowa to test oil and grease under the procedures specified in Chapter 567.83 of the Iowa Administrative Code. Laboratory tests shall conform to the following conditions:

(iv) The FSE shall also be required to meet the same requirements as defined in Sec. 28.308(5)(a).

(8) Submission of incomplete records or failure to submit records as described in Sec. 28.308(5)(a-c) shall constitute a violation of Sec. 28.306(2). Violators are subject to a municipal infraction and recovery of costs as described in Appendix N.

Staff Comment: These are proposed revisions to the Fats, Oils, and Grease (FOG) Control Program. Language will be added that would allow for Municipal Infractions to be levied on Food Service Establishments that have not submitted the required documentation and that contribute to sanitary sewer overflows. The City has not been able to pursue Municipal Infractions after recent sanitary sewer overflows because the Code did not include language that allowed it; and this change was recommended by the Legal Department to allow those to be imposed moving forward. Lastly, the use of grease interceptors both in series and parallel operation is addressed. This will give flexibility to food service establishments when installing new equipment while still pursuing the goals of the program.

28.309 Pretreatment Local Limits Established.

Pollutant	***Local Limit (mg/L)***
Arsenic	*0.02*
Acetone	*14.9*
Benzene	*0.05*
BTEX	*0.75*
Cadmium	*0.04*
Chromium (Total)	*0.93*

Copper	*0.57*
Cyanide	*0.88*
Lead	*0.89*
Mercury	*0.01*
Molybdenum	*0.29*
Nickel	*11.0*
Phenol	*2.6*
Total Petroleum Hydrocarbons	*10*
Selenium	*0.09*
Silver	*0.05*
Sulfide	*2.0*
Zinc	*4.3*
Oil and Grease	*300*
CBOD5	*1,800*
COD	*2,700*
TSS	*1,600*
Ammonia	*225*
TKN	*280*
pH (Standard Units)	*6.0-10.0*

Staff Comment: The Local Limits required by the Industrial Pretreatment Program have been added to Chapter 28 of the Municipal Code as a new paragraph 28.309. Previously, these limits had been approved by Council and the Iowa Department of Natural Resources, but had not been formally included in the Municipal Code or the Industrial Pretreatment Program document. The Local Limit for Chloride has been removed. The City had originally imposed a limit on Chloride during the last NPDES renewal cycle. The belief was that the NPDES permit would have a limit on Chloride, so staff preemptively took the corresponding action with the Local Limits. However, a limit was not included with the most recent NPDES permit, making the Local Limit unnecessary. **No new limits are being added; this simply codifies limits that have been previously adopted by Council and are already in place.**

Appendix N, Sec. 28.306(2). WASTE DISPOSAL ~~*Up to $1,000,*~~ *$250, in addition to the actual cost of cleanup for any sanitary sewer overflow caused by an introduction of substances as described in Sec. 28.306(2), for a facility's 1st violation* ~~*and*~~*, $500 for a facility's second violation, and $1,000 for each subsequent violation. In the event that more than one utility customer is responsible for the overflow, the municipal infraction may be levied upon each customer, and the cost of cleanup shall be prorated among those responsible.*

Staff Comment: A schedule for Municipal Infractions is proposed in Appendix N which includes escalating penalties for repeated infractions. This change was discussed conceptually with Council at a workshop on July 18, 2017.

PUBLIC OUTREACH FOR CHAPTER 28 CHANGES:

Builders from Ames that have recently constructed apartment buildings with a single master water meter were invited to submit comments and also to attend a public meeting on August 22, 2017 to discuss this matter. Three plumbing contractors that have built apartment buildings with single water meters and also with individual water meters were invited as well to help gain a better perspective of the cost difference in the two types of buildings. Staff also mailed copies of the proposed Code changes for their reference.

Staff received one written comment from a plumbing contractor concerned about the additional cost of buildings with individual meters. No comments were received from any of the builders or developers. No one was in attendance for the public meeting.

Because of the low response, staff decided to expand the number of contacts to ensure City staff had done their due diligence. Letters were sent to 68 owners of apartment buildings with single water meters, which included owners at the local level as well as out-of-town and out-of-state owners and investors. Again, copies of the Code changes being considered were included for their reference. Staff did not schedule a second public meeting because of the number of out-of-town and out-of-state owners. Only one response was received from this mailing. It was from a local apartment building owner. The concerns stated involved the additional cost of construction for buildings with individual meters and also maintenance concerns of having water heaters above the basement or ground level in case of water heater tank failures resulting in costly repairs. It was also expressed the Water and Pollution Control Department should have a rebate program to help pay for low flow toilets, faucets and appliances.