

COUNCIL ACTION FORM

SUBJECT: STORMWATER UTILITY SYSTEM

BACKGROUND:

Since its inception, the City's Storm Sewer Utility has generated revenue based on a uniform flat monthly fee per utility account. In response to a citizen request, the City Council directed City staff to develop alternatives for billing based on impervious area. At a November 17, 2009 workshop, the Council considered four alternatives that reflected this new billing philosophy. At that meeting the Council then directed staff to explore two additional alternatives for consideration. The City Council was subsequently presented with those six alternatives at a September 21, 2010 workshop. Staff was then directed to bring back those alternatives for a final decision. In a meeting held November 23, 2010 Council reviewed seven alternatives. **At that meeting Council took action to implement alternative #5 with a 15% increase in the first year and to phase in the residential contribution difference over a 5 year period.**

Storm Sewer Funding

The money collected for and paid into the Storm Sewer Fund is expended for the purpose of constructing, operating, repairing, and maintaining all kinds of conduits, drains, storm water detention devices, flow impediments, ponds, ditches, sloughs, streams, filter strips, rip-raps, erosion control devices, and other storm water control facilities. Capital Improvement Plan projects financed from the Storm Sewer Fund include the Storm Sewer Intake Rehabilitation Program, the Storm Sewer Facility Rehabilitation Program, Low Point Drainage Improvements, Southwest Ames Storm Water Management Improvements (improvements to Greenbriar Park), and Storm Sewer Outlet Erosion Control (College Creek Restoration project as part of this program from 2008-2010). Activities included in the City's operating budget include Illicit discharge detection and elimination, storm sewer maintenance and cleaning, permit administration, public outreach/education, construction site erosion control inspection, pesticide and fertilizer management, Geographic Information System (GIS) mapping of the storm sewer network, the rain barrel grant program, the rain garden grant program, the stream bank stabilization grant program, and the annual Clean Water Festival.

Existing Billing

At present, the City charges a flat fee per utility account for stormwater. This charge is currently \$3.00. There are approximately 24,780 utility accounts in the City. This generates approximately \$74,340 a month in revenue for stormwater improvements, or \$892,080 annually. There are currently 18,276¹ residential utility accounts in the City, which account for 74% of the total utility accounts.

¹ This is the number of utility accounts on parcels with a residential Assessor designation and the estimate of residential accounts on mixed use property. It is not based on current residentially billed accounts.

Impervious/Pervious Analysis

The first step in looking at impervious fee scenarios is to analyze the data in our GIS. In 2008, Ames had planimetrics created in conjunction with aerial photography. This data included streets, sidewalks, driveways, and any structures over 150 square feet in size. Using the GIS, we were able to look at the City and generate the percentage of imperviousness per classification. The percentages are shown below and were derived from City Assessor classifications²:

- Residential 46.9%
- Commercial 32.9%
- Industrial 7.1%
- Tax Exempt 13.0%
- Agriculture 0.1%

Iowa State University is not included in these calculations, since the University has its own Municipal Separate Storm Sewer System (MS4). In discussions with the Iowa Department of Natural Resources (DNR), they clarified that Iowa State's permit covers all land owned and/or used by the University within the City's corporate limits. It is also the opinion of Legal staff and the DNR that this would prevent them from being billed by the City based on impervious area³.

Billing for Impervious/Pervious

In researching how other cities are billing for impervious area, it was found many are using the Estimated Residential Unit (ERU) process (see Attachment 1). This process is accomplished using GIS to estimate the average impervious area on residential lots. This number is then used to divide the impervious area of all properties to give each property an ERU value.

Staff used the City's GIS to calculate an average impervious area for residential parcels within the City. The GIS showed that an average residential parcel in Ames has 3,050 square feet of impervious area. After analyzing the data, staff recommended that one ERU would equal 4,000 square feet. This was suggested since our planimetrics do not capture all impervious area on a parcel. Things not captured would include patios and non-public sidewalks on residential parcels. This calculation did not include mixed use parcels which include residential units. The 4,000 square feet would also potentially reduce the number of appeals of ERU calculations.

This above formula was used for all analysis in this and preceding reports. For example of a parcel with 8,000 square feet of impervious area will have an ERU equal to two ($8,000 \text{ sf} / 4,000 \text{ sf} = 2 \text{ ERUs}$). Properties having 4,000 square feet equal to one ERU comprise 87.2% of residential properties and 80.2% of all properties in the City being less than or equal to one ERU.

Assumptions

Staff had to make some assumptions to analyze an ERU system for billing. First, the minimum ERU will be equal to one. This means properties with less than 4,000 square feet of impervious area will be charged one ERU. Second, for the purpose of billing, the

² Does not include Iowa State University land or City of Ames properties; only billable parcels.

³ Iowa City does not charge the University of Iowa properties

calculated ERU will be rounded to the nearest half ERU. For example a property with a calculated ERU of 10.24 will be rounded to ten ERUs for the purpose of billing. The rounding calculation of ERUs results in 93.6% of residential properties and 86.6% of all properties being less than or equal to one ERU. All calculations in this report are done with these two assumptions for the purpose of billing.

Staff also assumed Assessor codes will be used when looking at residential versus other classifications. Currently, the City’s utility billing system has different residential versus commercial classifications based on the type of utility. For example a commercially classed parcel which contains apartments. For the Electric utility, the apartments are billed as residential while the common areas with Electric accounts are billed as commercial. For the purpose of this report, staff has assigned all accounts by their assessor codes. In the example above, all accounts of the parcel would be assigned as commercial.

For the purposes of this study, staff assumed that mixed use development is residential. This is due to the fact that residential utility accounts are 99% of the accounts in the mixed use parcels.

ERU based billing per parcel w/ \$1 minimum charge per utility account (formerly Alternative 5)

As directed the following scenario illustrates the impact of a 15% increase in the first year. This rate increase will take place in FY 2011/12 to help address additional stormwater management needs in the aftermath of the 2010 flooding. For the basis of future revenue increases, it is assumed a change in the ERU charge could be made.

This scenario uses a rounded ERU value, but adds a minimum charge of \$1.00 to each utility account with ERU valuation under the minimum. (Ex. ERU Valuation = \$.92, Stormwater bill amount - \$1.00) It is important to note that all of the City’s other utilities currently have a service charge that is billed each month in addition to usage charges. As an example, a typical residential customer would be billed the following service charges: Electric \$5.25, Water \$8.05, and Sewer \$6.55. This alternative does not include a service charge.

Table 1: (Formerly Alternative 5) - 15% revenue increase (year 1), residential phase in.

	Year 1	Year 2	Year 3	Year 4	Year 5
Minimum Charge	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00
Residential Charge per ERU	\$4.64	\$4.20	\$3.74	\$3.29	\$2.80
All Others Charge per ERU	\$1.37	\$1.84	\$2.32	\$2.77	\$3.24
Total Revenue per Month	\$85,489.84	\$85,505.20	\$85,531.97	\$85,537.59	\$85,476.68
% Residential	73.92%	67.04%	59.91%	53.10%	45.87%
% All Others	26.08%	32.96%	40.09%	46.90%	54.13%

To illustrate the impact of this method on different properties, aerial photographs for the following five examples are attached. At the bottom of each figure is a summary of the storm sewer fees to be charged for under the proposed method.

- Figure 1 – 2500 Northwestern Avenue (Single Family Residential)
- Figure 2 – 2900 Hoover Avenue (St. Cecilia Church)
- Figure 3 – 1921 Ames High Drive (Ames High School)
- Figure 4 – 3311 E. Lincoln Way (Barilla)
- Figure 5 – 2801 Grand Avenue (North Grand Mall)

Staff Consideration for Implementation of ERU Based Billing System

Previous reports identified several steps to be completed and associated costs required to implement an ERU based system. As follows:

- Create utility accounts for parcels which currently do not receive utility bills (i.e. parking lots w/ no lights or water). As of the last report staff had identified approx. 350 such parcels. To date all have been added to the system.
- Using the GIS, staff identified approximately 100 parcels which were not captured in the 2008 planimetric development. Planimetric layers are now current to 2009 aerial photography.
- Staff time to verify calculated ERU values and contested valuations for a time period after implementation.

Ongoing Cost Considerations for ERU Based Billing System

While minimal overall, some staff time and resources will be required to maintain the ERU based stormwater billing system. These considerations are outlined as follows:

- Ongoing staff time to value newly constructed properties.
 - New construction will be calculated by the Stormwater Specialist as permits are given.
 - ERU valuations for new accounts will be passed to Utility Billing staff for billing.
 - ERU updates for individual properties done as needed. (i.e. pavement additions or removal)
- Recurring updates and audits to ERU valuations.
 - GIS Staff will carryout manual planimetric updates on an annual basis or as new aerial photography is acquired.
 - Whole system ERU updates done on an annual basis or as warranted.

Additional Staff Comments

In order to keep the administration of this new approach as simple as possible to avoid further costs, the proposed ERU system will not offer credits for ERU reduction. The only way to change the ERU will be to reduce or increase impervious area (i.e. reducing paved parking area or install additional impervious surfaces).

It is recommended every property with impervious surface over 150 ft² be charged a stormwater fee. Currently, only properties with a utility account are charged the monthly fee.

Iowa State will not be charged stormwater fees as they are legally under their own Municipal Stormwater permit (MS4).

As part of our federal MS4 storm water permit, the City will soon be required to implement water *quality* standards on top of the existing water *quantity* standards. This will involve added up-front and on-going costs to developers, as well as more administrative costs for City staff.

ALTERNATIVES:

1. Direct staff to draft an ordinance amending the current stormwater code section 28.802 to:
 - a. implement an ERU based system with a minimum charge per account.
 - b. increase total revenue by 15% in the first year.
 - c. adjust the revenue percentage between billing classes over five year period to reflect impervious percentages
2. Keep existing stormwater billing fee structure in place.
3. Delay implementing the shift to an ERU system based on impervious area until July 1, 2012. In the interim, increase the monthly storm water fee to \$3.45 per utility account in order to generate the revenue need to address our capital improvement needs beginning in FY 2011-12.

MANAGER'S RECOMMENDED ACTION:

The City Council should be complimented for its comprehensive analysis of the proposed modification to the storm sewer utility fee. By approving the proposed ERU based stormwater billing system the City will be better positioned to confront stormwater related issues, especially those brought about by the 2010 floods. In addition an ERU based system will provide a fairer fee structure in which customers are charged only for the amount of impervious area on their properties.

Since November 17, 2009, the City Council has reviewed at least seven different rate structures. It was staff's hope that the by beginning far in advance of the implementation date, property owners could be provided with necessary notification of the financial impact from the cost shift reflected in a new rate structure. While it is still possible to move ahead with this new rate structure on July 1, 2011 as originally planned, staff is concerned that we are not able to provide sufficient time for impacted property owners to plan for the proposed increase in the storm water fee.

Therefore, rather than move forward at this time with a new rate structure based on impervious area, it is the recommendation of the City Manager that the City Council

approve Alternative #3, thereby delaying implementation of the shift to an ERU system based on impervious area until July 1, 2012. In the interim, the City Council should direct that an ordinance be prepared to increase the monthly storm water fee to \$3.45 per utility account. This will generate the revenue necessary to address our capital improvement needs beginning in FY 2011-12.