



Clinton Stormwater Utility Fee

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 December 13, 2022



What is a stormwater utility fee?

Cities across the country and Iowa have implemented a stormwater utility fee in recent years to help meet the financial demands of new water quality regulations. This fee is designed to fund stormwater management projects and general stormwater maintenance.

The city of Clinton currently funds stormwater maintenance from sanitary sewer utilities. The separation of the sanitary and storm sewer utilities, as well as many other factors, has led to a steady increase in sanitary sewer rates over the years. It has also caused a backlog of stormwater management projects due to limited funding. Sanitary sewer rates are based on water usage and are not equitable for use as a stormwater funding source. A more equitable and accurate way to charge stormwater fees is to base it on the property's contribution to stormwater runoff, which can be estimated by measuring impervious area.

What do residents have to do with stormwater management?

As urban areas develop, land which was once natural landscape becomes impervious surfaces, such as concrete or rooftops. Rather than soaking into natural soils, rain tends to run directly off impervious surfaces. This can cause problems in low-lying/downstream areas as the volume of runoff increases and pollution from urban living increases. Each property developed with impervious surfaces further exacerbates these issues. As extreme rainfall events increase in frequency, so do the negative effects of stormwater runoff. No single property is responsible for these issues; it is a cumulative effect from a developing urban area. A stormwater utility fee structure represents a community equitably paying for these cumulative issues.

How will this benefit residents and the city?

Building and maintaining resilient stormwater infrastructure prevents damage during extreme rainfall and flood events; it also improves the functionality of the watershed. Doing so allows less money to be spent cleaning up damages and higher quality infrastructure to be built. Residents would see improvements in water quality, runoff volume, and peak flow.

Methods and Designs

Our goal was to make the proposed stormwater utility fee as equitable as possible. We used the most common stormwater utility fee structure, the Equivalent Residential Unit method (ERU).

To implement the ERU method, we used GIS software to find the average impervious area of all single-family homes within Clinton's city stormwater utility system. The ERU size was calculated to be 2,707 ft² which includes the home, sidewalk and driveway.

The impervious area of each multi-family, commercial, and industrial property was found using GIS software. This impervious area was then divided by the ERU size to find an ERU multiplier for that property. This multiplier is applied to the ERU rate, resulting in a stormwater utility fee that is proportional to the property's impervious area. Examples of average properties and their monthly utility fee and shown in figure 2 and the accompanying table.

The annual target revenue generated from the stormwater utility fee structure is \$1,750,000.

- \$1,000,000 for capital funds for stormwater management projects
- \$350,000 for personnel
- \$200,000 for repairs and maintenance
- \$100,000 for equipment
- \$100,000 for cost-share program

	Single Family	Average Commercial	Average Industrial
Impervious Area	2,707 ft ²	857,174 ft ²	1,452,273 ft ²
Number of ERUs	1	317	536
Monthly Fee	\$4.63	\$1,467.71	\$2,481.68

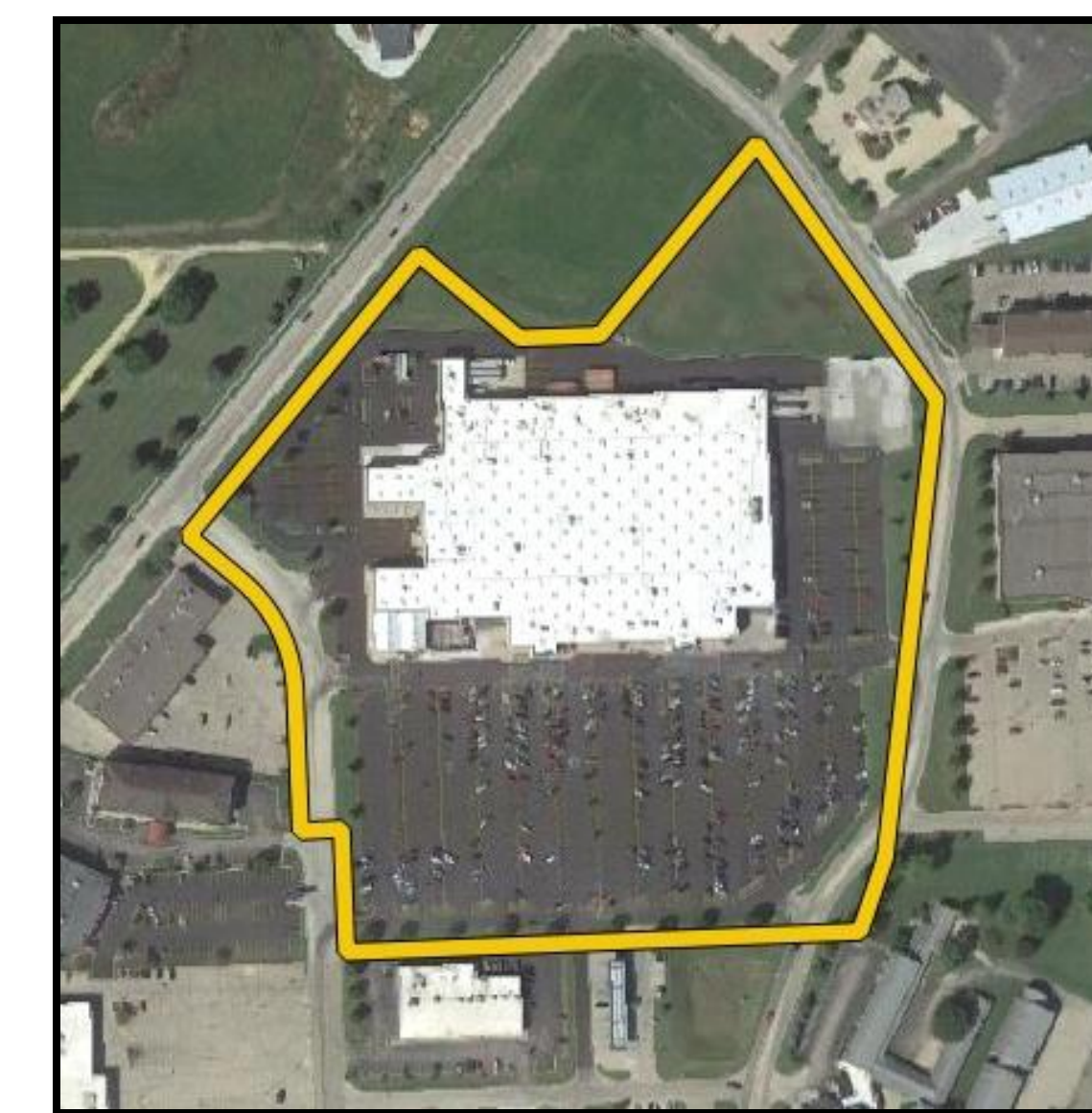


Figure 2a: Wal-Mart, an average commercial property.

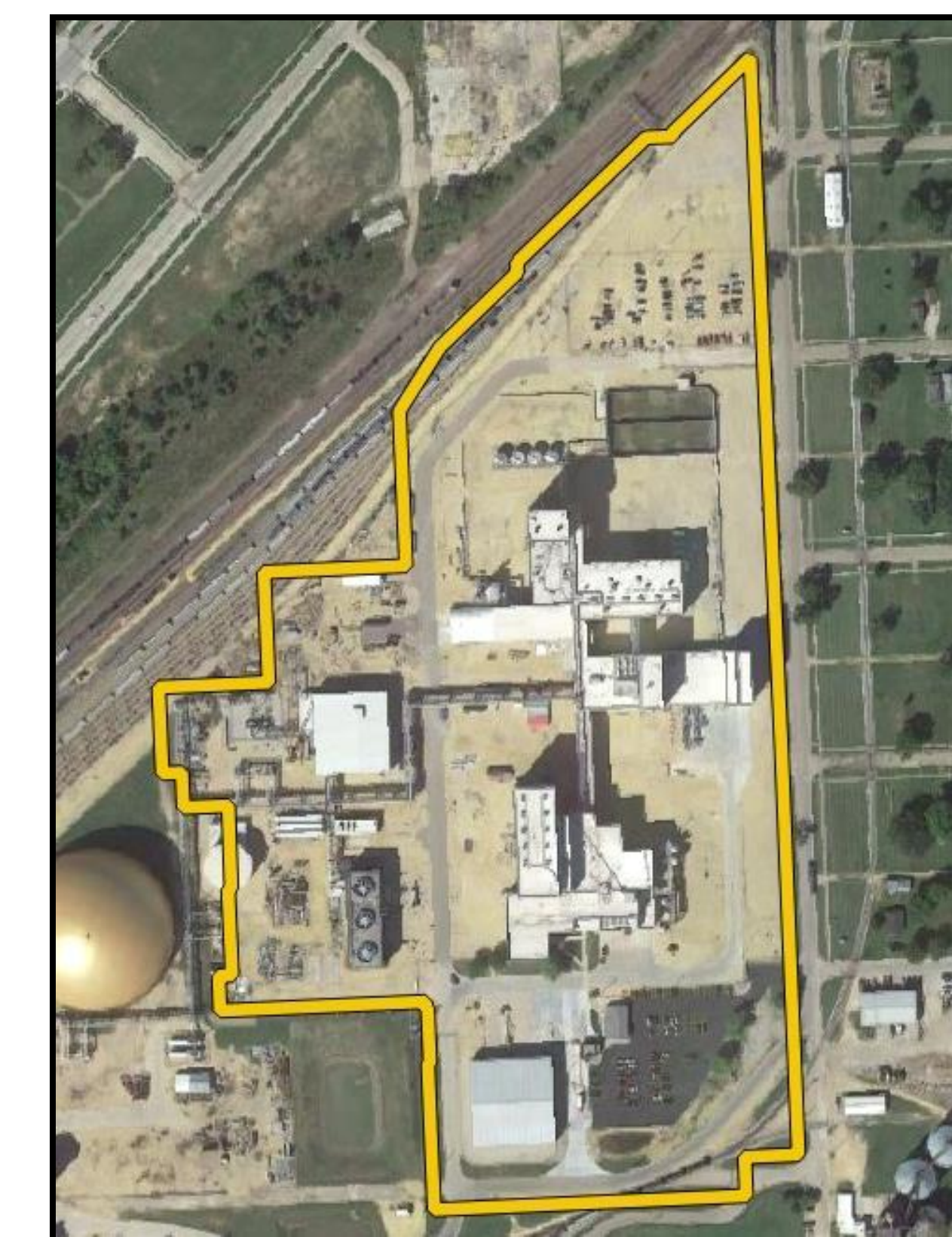
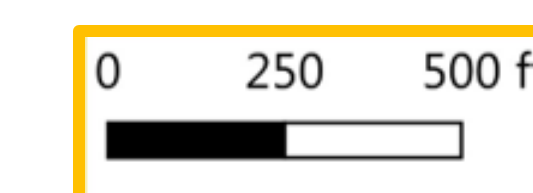


Figure 2a: ADM, an average industrial property

Opportunities for stormwater utility rate reduction using BMPs

Best Management Practices (BMPs) are standard methods to mitigate the stormwater runoff's negative effects. They range from being as simple as a rain barrel to a stormwater retention basin. The criteria chosen for Clinton, which a BMP should strive to improve, are stormwater volume reduction, peak runoff, and pollution.

The city of Clinton would like to offer a stormwater utility rate reduction if proper BMPs are implemented on a property. Each criteria a BMP improves will result in up to a possible 25% reduction of the property's stormwater utility rate. This rate reduction will not exceed 75% of the original fee.

Specific BMPs will be eligible for utility fee rate reduction. Guidelines for installing the BMPs offered for rate reduction from the city of Clinton can be found in the Iowa Stormwater Management Manual and Iowa Stormwater Education Partnership.

Whether an implemented BMP meets one or more of the criteria above will be evaluated on a case-by-case basis by a city employee. After revenue from the stormwater utility fee is generated, a cost-share program will begin in the second year. This program would allow the city to pay for half of the cost of implementing a new BMP, up to \$2,000.

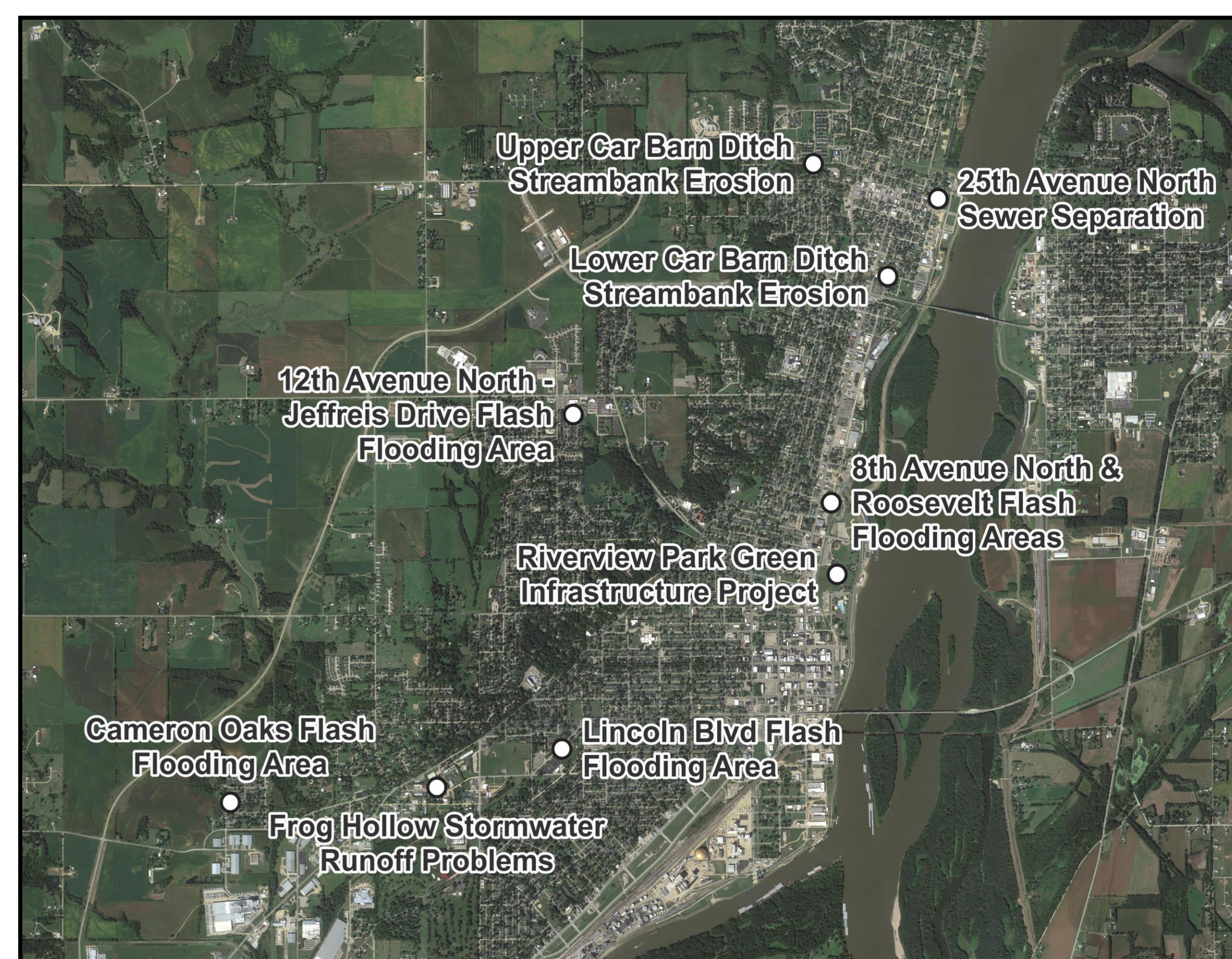


Figure 1. Potential stormwater project locations