

# Urban Stormwater Management

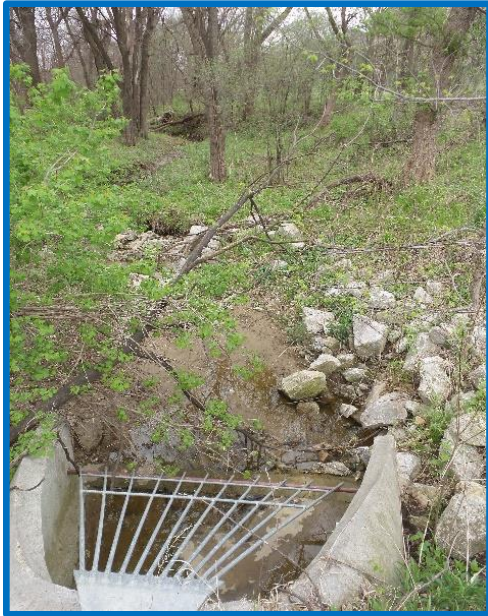
## ...Out of Sight Out of Mind

### What is it?

The term Urban Stormwater Management is defined as the rainfall or snowmelt that is not absorbed by the ground, but rather flows off of impervious surfaces such as roof tops, parking lots, and roads. This runoff then flows into a system designed to transport the runoff to receiving water bodies.



### Our Stormwater Management System



The City of Council Bluffs has a stormwater management system that consists of the following components:

- Curb and Gutter
- Storm Structures (Drains / Inlets)
- Storm Sewer Pipes and Culverts
- Outfall Structures
- Open Channels
- Pump Stations
- Levees



This system has been built over the years as the City has grown and been developed using many different standards and specifications. At one time in history, the City did not build storm sewer systems below ground, but the need to manage runoff more efficiently has led to changes. Older underground infrastructure was designed to transport small storm events. The standards continue to change as weather patterns change and now the City builds underground infrastructure to transport runoff from higher intensity storms. It has become more common to experience these greater intensity storm events which results in increased runoff volumes to be managed.

## Sustainability

As the City continues to grow, the ability to serve the public with necessary infrastructure and maintain the current infrastructure becomes one of the questions frequently asked of community leaders. A question that is continually being asked in communities everywhere is how to make Urban Stormwater Management sustainable. A sound approach leading to sustainability is for management of the system to be flexible, based on local characteristics, maintenance needs, and administrative or legal requirements. Mismanagement of stormwater and urban runoff results in flooding, erosion, water quality problems, and infrastructure failures.



## Current Infrastructure and the Future

The City of Council Bluffs currently maintains the existing stormwater management system, but many of its components are 50 years old or older. It is estimated that approximately 30% of the existing stormwater management system is beyond its design life. At the City's current ability to replace or maintain these components, it would take 400 years to complete the replacement of deteriorated components and repairs when failures occur. In an effort to provide an effective "Urban Stormwater Management" service, The City is looking into different programs to bolster this non-sustainable program and make it a sustainable program.

Type	Amount
Curb & Gutter	300+ miles x2
Storm Structures (Drains / Inlets)	~11,800
Pipe	~200 miles
Open Channel	30 miles main channel & 12 miles other
Outfalls	270
Pump Stations	12 Permanent & 3 Temporary
Levees	28 miles

For more information on stormwater management, please visit the City of Council Bluffs website.

<http://www.councilbluffs-ia.gov/416/storm-water-management>