

JUNE 2021 | Mahaska Rural Water

# QUENCH

news by the glassful



WATER QUALITY  
*Stronger Together*

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Iowa Farmer holds up cover crop sample to show the great root system that holds the soil in place.



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# Thank You Linda Beintema

We would like to say a final thank you to long time employee Linda Beintema. Linda started at Mahaska Rural Water (MRW) in 1988 as Office Assistant; posting of payments, banking and customer service. She worked full time for 25 years and part time for over 5.

Linda has seen a lot of changes in that time from customers self-reading their meters and sending monthly bills by hand to a computer program billing system and automatic payments. "I'm proud to have been a part of those many changes, because change is important for improvement." said Linda.

Even though Linda is done working behind the desk at MRW, you might still catch her in the office when she occasionally drops by.

We all wish Linda the very best and thank her for her dedication and service to Mahaska Rural Water.



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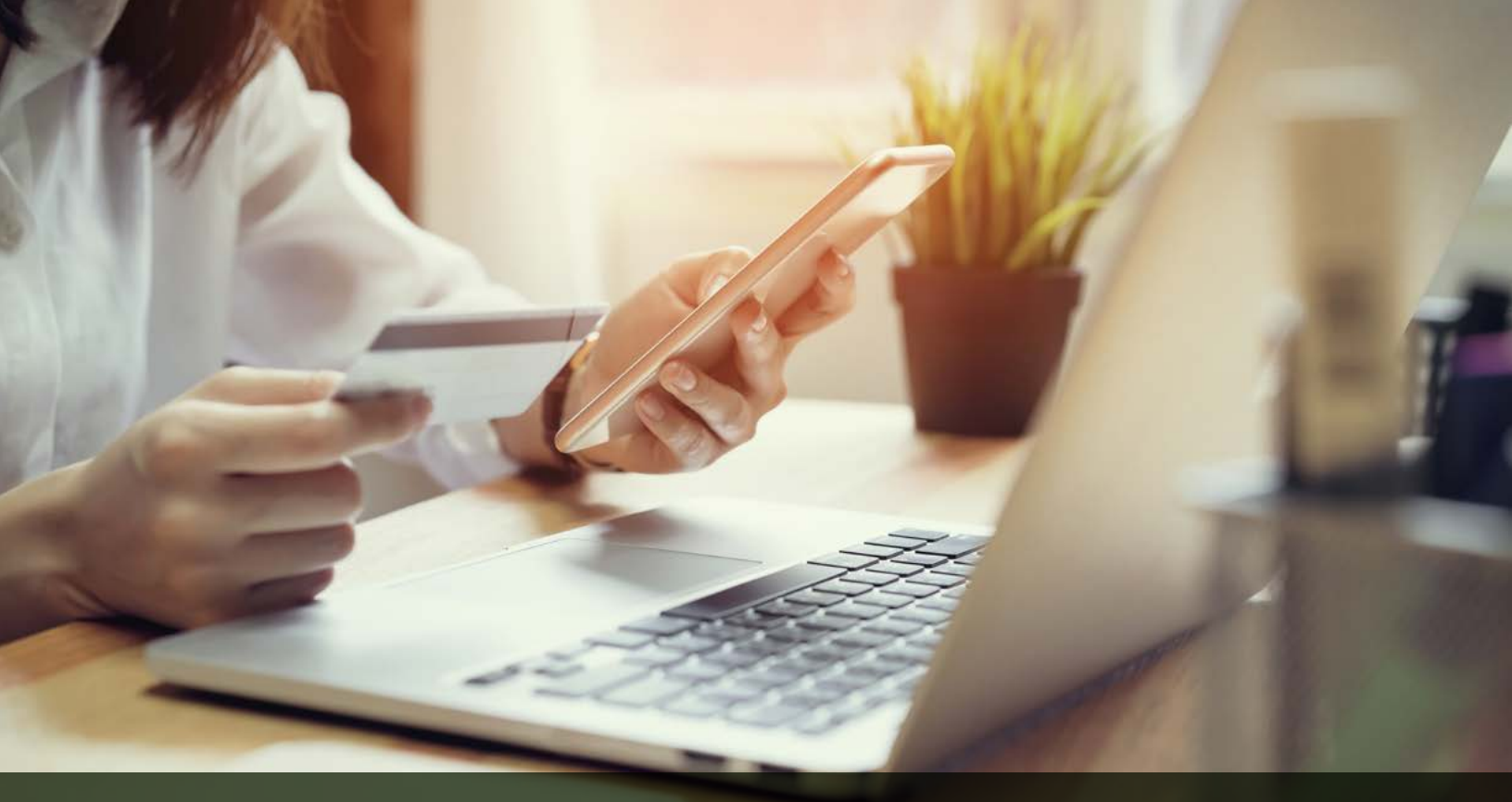
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## MISSION STATEMENT OF MRWS

"To provide  
SAFE QUALITY WATER  
and related services to  
Mahaska County and  
surrounding areas at  
an affordable price."





# Payment Options

## OPTION 1

Mahaska Rural Water offers ACH (Automated Clearing House) where your water bill can be deducted from your checking or savings account. You will still receive your monthly bill around the 1st of each month stating the gallons used and the amount due. The amount due will be deducted on the 10<sup>th</sup> of each month. To sign up for ACH simply find the form on our website; print, sign, attach a voided check and mail or drop off at our office.

## OPTION 2

Payments can be made with a debit/credit card in the office or over the phone.

## OPTION 3

Mahaska Rural Water also accepts payments online via Paymentus Corporation. From our website, [www.mahaskaruralwater.com](http://www.mahaskaruralwater.com), simply click the green "Bill Payment" button then the green "pay your bill now" button. All you need is your account number (without the dashes) from your paper bill. Payments made prior to midnight will be posted to your account on the next business day. For each payment you will receive a confirmation number for your receipt via email.

## OPTION 4

Payments can be made with a check or money order. If you prefer to mail your payment, detach the payment stub from your billing statement and send it with your payment using the return envelope provided. Please allow 5 business days for mail to arrive in our office. Check and money order payments can also be dropped in our drive-thru box at 401 B Ave W, Oskaloosa. It is important to include the bottom portion of your bill, especially when you have more than one account with MRWS.

## OPTION 5

Cash payments can be made during office hours which are 8am-12 and 1-4:30pm, Monday through Friday.

If you would like your monthly statement sent directly to your email, simply fill out the e-mail form (please print clearly) and return it to our office. The form can also be found on our website!

# What are *BIOSOLIDS*?

Biosolids are not raw sewage. Biosolids are stabilized nutrient-rich organic matter that has been significantly reduced of pathogens, containing far less than the amount of pathogens in manure. Biosolids are monitored under stringent 503 regulations set by the EPA.

## PHOSPHORUS IN BIOSOLIDS

Phosphorus is required for plant growth and is found in every living plant cell. It is vital to plants in the transformation of energy being a component of lipids, proteins, and metabolic processes. Biosolids contain phosphorus and other micronutrients that are beneficial to crop growth.

Consider the cost of applying anhydrous and maintenance for high pressure storage containers. Biosolids are a free source of fertilization to the farmer. Anhydrous is one of the most potentially dangerous chemicals used in agriculture.

## SLOW RELEASE OF NITROGEN

Organic fertilizers such as biosolids tie up most of the nitrogen in organic molecules. Biosolids fertilizer creates a “slow release” chemical process that allows the fertilizer to be available when the plant needs it most during the growing season. Considerable losses of nitrogen can occur with commercial fertilizer since nitrates are water soluble and are known to leach out, wasting your money and harming the environment.

## BEST MANAGEMENT PRACTICES

Commercial fertilizers are prone to runoff and can enter the waterway much more readily than biosolids. Over application is common with commercial fertilizers which wastes money and harms the environment.

A diverse source of fertilizers is one of the best ways to get nutrients crops need to thrive while maintaining soil structure. In the process of diversifying fertilization needs, biosolids can increase profitability and reduce the chance of pollution to waterways and aquifers.

Biosolids are generated from municipalities with wastewater treatment. The amount generated and the consistency of removal depends on the treatment type. Most systems do not have a means of removal or application, so most times the Biosolids can be acquired free of charge. If you have land that is used to grow commercial crops, consider acquiring Biosolids from your closest municipal treatment plant.

“We saw a yield advantage of nearly 20 bushels per acre for the biosolids while saving \$18 per acre on nitrogen.”





# LIVESTOCK AND INDUSTRIAL – MRW'S LARGEST CONSUMERS

May of 2021 will begin Mahaska Rural Water's (MRW) 41<sup>st</sup> year of serving water to our customers. Back in 1980 our water was used mainly for domestic and household use. It's amazing how much MRW has grown and how our water is now consumed.

## Livestock

Keomah II represents our largest single customer using our water. This is a chicken egg laying facility. Each building holds 125,000 chickens and there are seven of them. They use an average of 35,000/day.

C & D Dairy represent our water being used for milk production. Our other dairy's are William Hol, Ken Hol, Mark Goodman, Nunnikhoven Dairy, and Geral Hol. The six dairies use an average of 37,000/day.

Ver Steegh Bros. represents our water being used for cattle. Most of these producers use a combination of rural water and well water with some using only our water. We have between 15–20 producers using an average of 55,000/day.

West Plains Pork II represents our water being used for pork production. Most of these producers have MRW water as their only source. We have over 90 pork producers using and average 365,000/day.

This highlights our largest livestock users however our water is used by many customers for their animals such as horses, sheep, goats,

chickens, and cattle. MRW takes pride in being able meet the supply demands of the livestock throughout our county at an affordable price. MRW estimates that an average of over 500,000/day (185 million gallons/year) is used in livestock production.

## Business and Industry

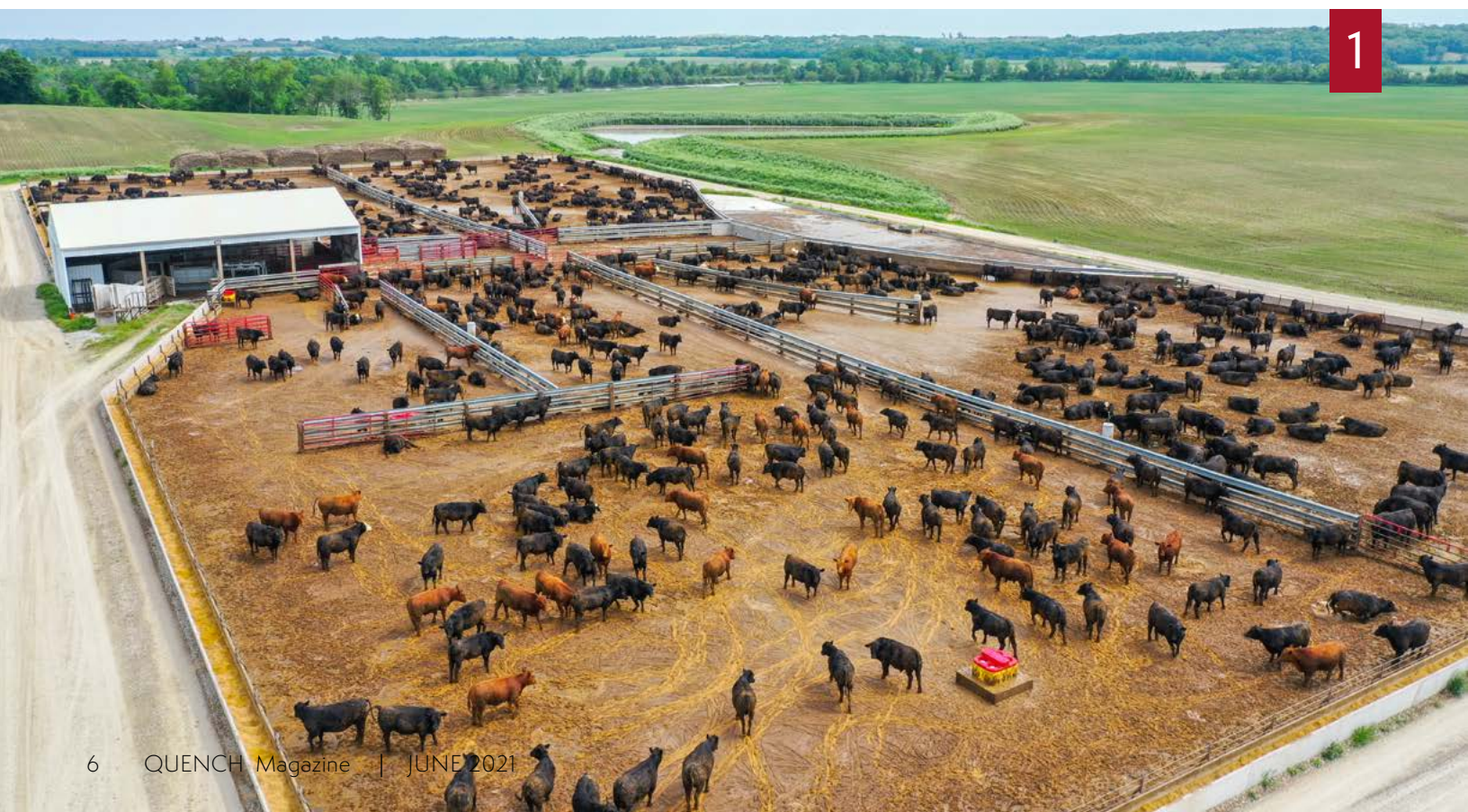
Key Coop along with Nutrein are a big user of our water for spraying chemicals on the thousands of acres of corn and soybeans. Many of our farmers do the same in the spring. Our stable, clean water supply helps mix the chemicals properly for spraying on the crops.

Tassel Ridge Winery is known throughout Iowa and beyond for their great wines that are produced here in Mahaska County.

Ideal Ready Mix and Manatt's by New Sharon use our water to make concrete.

Many other local industry providers use MRW water to benefit our county by coloring landscape mulch (Old Castle formerly B&B Bedding), doing Livestock trailer washout (Mark Vos), Metal Manufacturing (DeJong Manufacturing, Kelderman Manufacturing, Phillips Machine and Metal Fab.), Diesel & Auto Repair (Bill & Rays, Outer Limits) to name a few.

*We are thankful to all our business customers.*





2



3



4



1 | VerSteegh Bros  
- cattle

2 | West Plains II  
- pork

3 | Ideal Ready Mix

4 | ProLine

5 | Keomah II LLC  
- poultry

6 | C & D Dairy

5



6

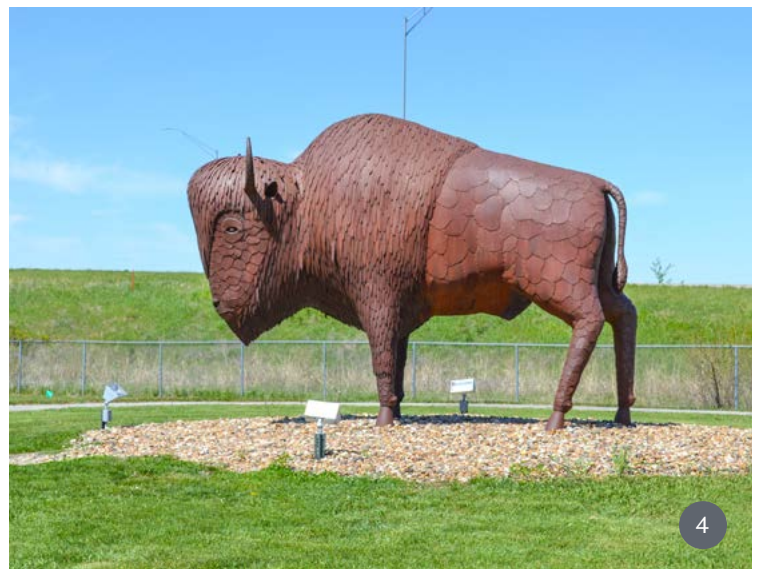




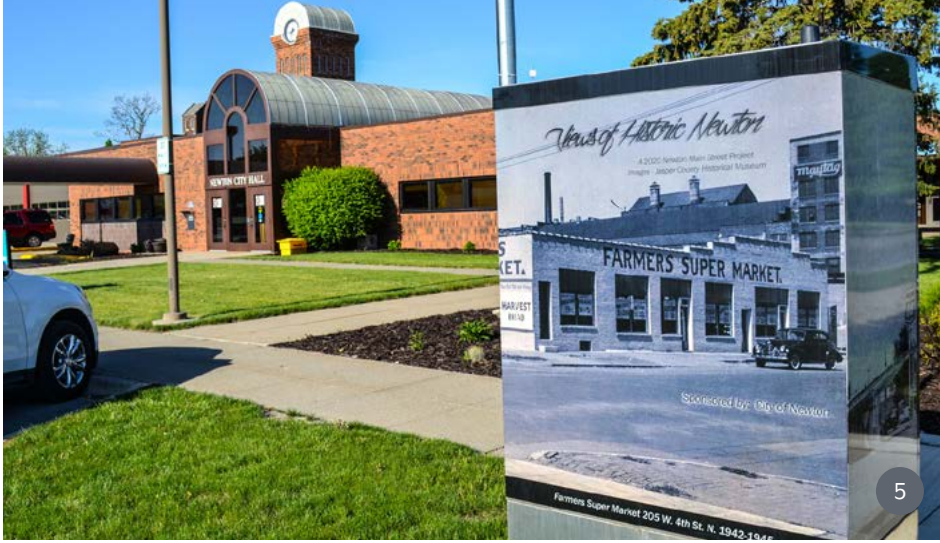
# Community Projects Across Iowa



Every town strives to make their community a better place to live. It is an ongoing project. Here are a few examples from different Iowa communities that you may want to try in your town. Many towns use art as a way of decorating their community. Others combine structures highlighting a community history with entertainment. Below are a few examples of community art and community beautification from around Iowa.







1 | The City of Muscatine has an interactive Mississippi Mist Fountain Splash Pad in Riverside Park.

2 | Artist Ray “Bubba” Sorenson has painted “Freedom Rocks” in all 99 counties of Iowa. This Freedom Rock can be found on the outskirts of Oskaloosa’s east side in Mahaska County. The south side of the rock features the faces of seven generals, all from Mahaska County. The east side image is “The Bugler” Harry L. Anderson.



3 | Dutch Heritage is the highlight in Pella, Iowa. This windmill and tulip gardens are located right off the town’s square in “Sunken Gardens Park”.

4 | Prairie City Community has highlighted one of their best features – The Neal Smith National Wildlife Refuge – with this statue of a Buffalo. And also the statue below of “Prairie Grass”.

5 | The City of Newton recently placed “Views of Historic Newton” on the town’s utility boxes for the street lights.

6 | Bondurant has various seating areas with nice trash receptacles and perennial gardens throughout their downtown.



7 | A recent project in the City of Grinnell was to beautify there street corners with brick inlay designs.

8 | New Sharon recently completed a new playground upgrade featuring the local North Mahaska school colors of Red and White.

Based on my recent travels, Iowa knows how to beautify a community. Community projects are hard work, not to mention costly, but they are ALWAYS worth the effort. Historical information, heritage and beautiful art pieces really do generate a pleasant living atmosphere. Take pride in what your community has created and maybe even pitch in to help sometime. Community projects usually generates people working together as a team and “Working Together Works”. Enjoy your community, enjoy fellowship with each other and enjoy the fun it generates! One more thing: Remember to always drink plenty of Quality on Tap water when doing any community or personal projects!





# WATER QUALITY *Stronger Together*

———— We are **#StrongerTogether** in Iowa ————

**F**armers who grow Iowa's corn know how fortunate we are to have such fertile soils and how important our state's water is as we depend on every drop, and not just for the crops we grow. We have families too and just like you, we want to be sure the water we drink is pure and clean.

Iowans truly are #StrongerTogether when we support one another. Just like how you support local shops, businesses, and restaurants, you can support local Iowa farmers every day! One way to do this is by filling up your water bottle from the tap.

Farmers care about the water we share here in Iowa, and we are giving back to our communities. In May, Iowa Corn awarded nine Iowa schools across the state a water bottle filling station to encourage students to fill up their glass from the tap.

#### THE WINNING SCHOOLS ARE AS FOLLOWS:

Sioux Central Community Schools, Sioux Rapids; Hancock Elementary, Britt; Union High School, La Port City; West Monona, Onawa; Morris Elementary, Bondurant; North Scott, Eldridge; Tri-Center, Neola; Lincoln Center, Albia; Cardinal Middle School, Eldon.

The water bottle filling stations will be installed before the 2021/2022 school year. Additionally, Iowa Corn will be part of the first week of school by donating Iowa Corn water bottles, signage on the filling station and work with the winning schools to organize a day for the Iowa Corn Mobile Education Center to come out to the school.

#### Iowa Corn Farmers Care About the Water We Share

When you drink tap water you are showing your trust for clean, pure water. Iowa farmers are implementing the best practices and using the best technology to protect Iowa's water supply. One of the practices farmers are implementing are called cover crops. In the fall after the corn crop is harvested, farmers plant another crop known as a cover crop. It adds organic matter to the soil and holds it in place, because when soil is covered by plant material the risk of erosion is greatly reduced.

*"Cover crops keep the soil in place, and in the long run, I know they are contributing to healthier soil and better water quality for all Iowans,"*

said Mark Mueller a fourth generation Iowa farmer from Waverly and director of the Iowa Corn Grower Association.

Farmers like Mueller and the Golightly's use a variety of conservation practices to ensure the best use of soil and water resources to reduce nutrients in water and safeguard their long-term ability to farm. To learn about the many other best practices farmers use visit [iowacorn.org/H2O](http://iowacorn.org/H2O).

**For more information visit  
[iowacorn.org](http://iowacorn.org)**





∨∨ Cover crops keep soil in place



∧∧ Anna and Randy Golightly  
looking at cover crops in their field near Van Meter, Iowa



∧∧ Iowa Farmers Care About the Water We Share!  
Fill your water bottle straight from the tap.

Congrats!  
TO THE WINNING  
IOWA SCHOOLS  
IOWA CORN

SUPPORT LOCAL  
Stronger Together  
FARMERS

To learn more visit  
[WWW.IOWACORN.ORG/WATERFOUNTAIN](http://WWW.IOWACORN.ORG/WATERFOUNTAIN)



Mahaska Rural Water System, Inc.  
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Oskaloosa, IA 52577

# WATER MATTERS – Flooding & Rainfall Patterns

Rainfall events that generate flooding are occurring more often throughout Iowa. This seems to be the projected trend for the future. Communities need to develop more resilient strategies to address flooding issues. A starting point is to clarify the common misperception about probabilities of rainfall events.

## Types of Flooding

A floodplain is the channel of a river and adjacent land areas that are reserved or protected from development. Some communities are required to regulate development in these floodways. Regulation is meant to ensure that there are no increases in upstream flood elevations.

Floodplains are nature’s storage areas for heavy rains that help reduce the likelihood or extent of downstream flooding. Every waterbody has a floodplain, from the smallest creek to the largest river. When flooding occurs rain saturates the urban drainage system, which causes flooding. There are two main types of flooding to consider with respect to storm water.

**Flash Floods** are caused by an extreme, localized storm where a lot of rain falls in a short amount of time. It typically affects a small area within the watershed. Floods of this type are particularly dangerous because of the suddenness and speed with which they occur. Consequently, they are often difficult to predict. Flash flooding in urban areas is an increasingly serious problem. It can be due to removal of vegetation and the increase in impervious surface area. It is also a factor of how of drainage systems are designed to simply convey runoff as quickly as possible.

**Extreme Floods** are caused by large-scale weather systems that generate prolonged rainfall over wide watershed areas. Floods of this nature are still dangerous, however they are easier to predict. In fact, the Iowa Flood Center, is working hard to help communities with mapping, monitoring and responding to potential floods. Starting in

the early 90’s, most of Iowa’s urban communities began requiring flood control practices, such as detention and retention basins, to address downstream flooding.

This “one-size fits all” approach may not be all that is needed to reduce flooding caused by urban development, especially in watersheds that have agriculture development.

## Flood Frequency

Rainfall events can be estimated through recurrence intervals. The interval expresses the likelihood (as a percentage) that a storm of the same duration and volume will be exceeded in one year. This is known as the Annual Exceedance Probability. A flood event with the duration and volume of a “2-year storm”, which is 2.91 inches of rain over 24 hours, has a 50 percent chance of occurring in any given year. Likewise, a “100-year storm”, which is equivalent to 6.61 inches of rain over a 24-hour period, has the likelihood of a 1 percent chance annually.

The “100-year storm” should not be mistaken with a storm that would only occur once in 100 years. Rather the phrase is used to illustrate storms of the 100-year magnitude and have a 1 percent chance of occurring in any given year.

Time Period	Annual Exceedance Probability
2 years	50%
5 years	20%
10 years	10%
25 years	4%
50 years	2%
100 years	1%
500 years	0.20%

<https://iowastormwater.org/stormwater-runoff/flooding/>