

Your property is in or near a floodplain and may be at risk. Important flood information inside.



FOLLOW THE FLOOD – WE REMEMBER 1997

Remembrance Ceremony
 July 28, 6:30–7:30 p.m.
 Creekside Park
 1817 S. College Ave.



Flood Education Day
 July 29, 10 a.m.–2 p.m.
 Spring Park
 2100 Mathews St.

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FORT COLLINS: BE FLOOD READY

We Remember 1997

July 28, 1997. Spring Creek at College Avenue
 Photo Courtesy of John Weaver

Only Rain Down the Storm Drain



You may think it's OK for little things to be put down the storm drain – however, it all adds up and can create problems. Our storm drains run directly into our lakes and streams. To help keep them clean, properly dispose of motor oil, pick up pet waste and use car washes as opposed to washing at home.

Do not dump or throw anything into ditches or streams. Obstruction and pollution of our waterways and ditches are violations of Fort Collins City Code.

Report any debris or dumping in ditches or streams to Fort Collins Utilities at 970-212-2900 or email utilities@fcgov.com.

FLOOD EDUCATION DAY
 July 29, 10 a.m. – 2 p.m.
 Spring Park, 2100 Mathews St.
 SE of College & Stuart

Join us for this family-friendly, educational event to commemorate the 1997 Fort Collins Flood. Learn about flood safety, mitigation and emergency preparedness.

- Hands-on kids activities
- Educational booths
- Bike tours along Spring Creek
- Walking tours
- Presentations and demos
- Food trucks

Learn more: fcgov.com/follow-the-flood

Follow the Flood

WE REMEMBER 1997

Build Responsibly: Know the Floodplain Regulations

Before you begin any construction (new development, addition, remodel, filling, grading, etc.) on your building or property, contact Fort Collins Utilities for specific floodplain regulation requirements. Some important information is listed below.

Get a Floodplain Use Permit Before You Build

These required permits ensure structures are protected from flood damage and construction projects do not cause flooding problems for existing properties. According to Fort Collins City Code, all new residential structures and additions built in the 100-year floodplain must be elevated above the 100-year water surface elevation. New non-residential buildings and additions also must be elevated or floodproofed above the 100-year water surface elevation.

Floodway Requirements

The floodway is the most dangerous section of the floodplain. New residential development is not allowed and commercial development is very restricted. For all other permitted development, an engineering analysis that shows no-rise in the 100-year flood elevation is required.

Substantial Improvement Requirement

If the cost of reconstruction, rehabilitation or other improvements to a building equals or exceeds 50 percent of the existing building's market value, the structure must meet some of the same requirements as those of a new building. Substantially damaged buildings must meet the same standards upon reconstruction. Improvement requirements are addressed during the floodplain development permitting process.

For more information, call 970-212-2900 or email utilities@fcgov.com.



These new townhomes in Old Town were built to meet the floodplain regulations, including elevating the lowest floor to be 1.5 feet above the 100-year flood level.



Flood warning gauge at Centre Avenue at Spring Creek

There are 75 streamflow and precipitation gauges in Fort Collins' flood warning system. View data at fcgov.com/floodwarningsystem.



Scan this to get real-time data

Know the Difference Between a 'Watch' and a 'Warning'

It's important to know the difference between the following terms:

- **Flash flood watch:** Heavy rain may result in flash flooding. Severe weather conditions are possible – be alert.
- **Flash flood warning:** Flooding is imminent or has occurred – take precautions immediately. Don't drive through flood waters.

Where to get Information in Flood Emergencies

- Listen to local radio or TV stations to learn about current weather conditions and emergencies.
- The best weather updates come from the National Weather Service via NOAA weather radios that can be purchased at electronic and appliance stores.
- To report general flooding, call 970-212-2900. Don't call 911 for information.

Sign Up for Emergency Notifications

Receive emergency notifications on home, business and cell phones, as well as by text messages and emails. Learn more at leta911.org.

View Real-Time Rainfall and Streamflow Data

Fort Collins Utilities has an early flood warning system that includes streamflow and precipitation gauges throughout the city. When gauges exceed a set level, Utilities and Office of Emergency Management personnel are notified. Real-time data can be viewed at fcgov.com/floodwarningsystem.

Everyone Can Purchase Flood Insurance

Flood insurance is highly recommended and covers all surface floods. Most standard property insurance policies do not cover flood damage. You don't have to live in a floodplain or high-risk area to purchase flood insurance.

Any walled and roofed structure can be insured, and separate coverage is available for building contents. Many residents opt to take that extra step to protect their homes and investments.

Coverage is not available for anything outside the structure, such as driveways or landscaping. Renters can purchase insurance for their belongings, even if the owner has not purchased structural coverage.

Don't wait for the next flood to buy insurance – there is a 30-day waiting period before National Flood Insurance takes effect. Insurance agents sell policies under rules and rates set by the federal government.

In 2012, Congress passed the Biggert-Waters Flood Insurance Reform Act that resulted in rate increases for the National Flood Insurance Program (NFIP). Additional changes were made by Congress each year. Visit fema.gov/flood-insurance-reform for details.

Residents and businesses in Fort Collins can receive up to a 40 percent discount on flood insurance premiums

The City of Fort Collins Has Some of the Lowest Flood Insurance Premiums

The Community Rating System (CRS) provides reduced flood insurance premiums to communities that exceed the minimum federal NFIP requirements. Fort Collins floodplain residents receive one of the lowest flood insurance rates in the country as a result of Fort Collins Utilities' Floodplain Management Program and from several drainage improvement projects constructed using stormwater fees.



Spring Creek at Drake Road

Protect the Floodplain...It Protects You

Flooding is a natural process. A healthy riparian ecosystem relies upon frequent inundations to survive and thrive. Along the Cache la Poudre River, many riparian areas have been preserved, including the Gustav Swanson Natural Area, Colorado State University Environmental Learning Center and Kingfisher Point Natural Area.

Floodplains help reduce flood damage by allowing water to spread over a large area. This reduces the speed of flood water and provides flood storage to reduce peak flows downstream. The City of Fort Collins owns a number of parcels along Spring Creek, Fossil Creek, the Cache la Poudre River, and other smaller drainages, permanently preserving these areas as riparian open space and reducing the flood hazard.

Open space along the Cache la Poudre River provides natural flood and erosion control in addition to fish and wildlife habitat. Many types of birds, including the Kingfisher, Great Blue Heron, Redtail Hawk, Great Horned Owl and a diversity of migratory songbirds, use the Cache la Poudre River riparian corridor.



Osprey

DON'T DRIVE THROUGH FLOODWATER

TURN AROUND

BEFORE A FLOOD	DURING A FLOOD	AFTER A FLOOD
Purchase flood insurance.	Do not drive through floodwater.	Check for structural damage to your building.
Make an emergency plan.	Move to upper floors of your home or climb to higher ground.	Document all damages.
Document your belongings.	Don't walk through flowing water.	Remove all wet items.
Store valuable items (computers, family photos, heirlooms, etc.) at higher locations in your home.	Listen for emergency updates.	Get a floodplain use permit and a building permit before making any repairs.
Sign-up for emergency messages at leta911.org .	Turn off utilities at the main power switch and turn off gas.	Contact your insurance agent and file a flood insurance claim.

Follow the Flood – We Remember 1997

Fort Collins Has A Flood History – Learn From the Past

This year marks the 20th Anniversary of the July 28, 1997 Flood. This is an opportunity to learn from the past to make Fort Collins more resilient to future floods.

The 1997 Flood is often referred to as the 1997 Spring Creek Flood. However, the 1997 Flood impacted many areas of town, not just Spring Creek. Other areas that experienced significant flooding included Old Town, West Vine, Canal Importation Basin (west side of town), CSU Campus and even Fossil Creek.

What caused the flood? The simple answer is too much rain. The total rainfall on the west side of Fort Collins during the 31-hour storm was 14.5 inches. That is our average rainfall for an entire year! The main part of the storm lasted from 6 p.m. to midnight, with 10 inches of rain falling during those six hours. This intense rainfall resulted in greater than a 500-year flood, a flood that has a 0.2 percent chance of being equaled or exceeded in any given year.

The devastating flood resulted in five lives lost, \$200 million in damages and approximately 2,000 homes and businesses damaged. In addition to flooding, there was a train derailment, a gas explosion and fires in a flooded mobile home park. It is the most damaging flash flood to hit Fort Collins to date.



The Johnson Mobile Home Park near the Dairy Queen on South College Avenue was destroyed by the flood. There was a significant search and rescue effort that took place in this area.



This home in Old Town had significant damage to the building foundation during the 1997 Flood.



Many of the mobile homes floated off-site and became piled against the College Avenue bridge at Creekside Park.



Aerial view of the Johnson Mobile Home Park showing how the mobile homes floated during the 1997 Flood.



The parking lot behind the Engineering Building on the CSU campus. Numerous buildings flooded, including the library and student center. Many faculty lost important research documents.



This high-water mark sculpture at Creekside Park documents the water level during the 1997 Spring Creek Flood. The lower markers represent the 10-, 50- and 100-year floods.

Follow the Flood – We Remember 1997

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Friday, July 28, 2017
6:30 p.m. – 7:30 p.m.
Creekside Park
1817 S. College Ave.

Flood Education Day
Saturday, July 29, 2017
10 a.m. – 2 p.m.
Spring Park – SE of College & Stuart
2100 Mathews St.

More details at
fcgov.com/follow-the-flood

Protecting for the Future

Mitigation Prior to the 1997 Flood

Fort Collins has a long history of proactive stormwater and floodplain management. Prior to the 1997 Flood, numerous mitigation projects costing over \$5 million were completed on Spring Creek. These included acquisition of 30 mobile homes, nine residential structures, a retirement home and a business. It is estimated that an additional 98 lives could have been at risk in 1997, if it wasn't for these projects.

Mitigation Since the 1997 Flood

Since the 1997 Flood, Fort Collins Utilities has spent \$100 million on flood protection measures to help the city be more resilient to floods. Many of these improvements have already shown their benefits by protecting our community during storm events over the past 20 years. A variety of techniques have been used depending on the location and the type of flooding problems.

In the Spring Creek Basin, regional detention ponds and reinforcement of the Burlington Northern Railroad embankment were completed.

Large storm sewers were constructed in Old Town where the drainages were paved over long ago. Many of these areas had a history of frequent flooding in small afternoon thunderstorms. The 2007, 2009 and 2013 rain events showed the benefits of these projects.

The Canal Importation Basin was also hit hard in the 1997 Flood. Numerous detention ponds and channel improvements have been made to this area that had primarily been constructed prior to drainage criteria being adopted in the early 1980s. Many of these detention facilities are designed to also provide beneficial habitat for wildlife.



Mobile home park acquired by the City prior to the 1997 flood. This mobile home park was located where Creekside Park is today, next to the Dairy Queen on College Avenue. This area was one of the hardest hit areas in the 1997 Flood. Photo taken from on top of the bike tunnel looking east.



The detention pond at Taft Hill and Drake Roads was constructed after the 1997 Flood.



Construction of the Oak Street outfall in Old Town. These large storm sewers provide flood protection to many businesses and residences.



The Red Fox Meadows detention pond captures water from the west side of town and slowly releases it, minimizing damages downstream.

We Remember 1997



Marsha Himes-Robinson, Floodplain Administrator

"The July 28, 1997, flood was my first flood response. I learned a great deal in the hours, weeks, months and years during and following the flood. My experience shaped how I approach my job every day. My goal is to reduce the impact flooding has on Fort Collins. I remember the heartache on peoples' faces, but, I also remember how the community came together to help each other. I have seen how we have rebuilt to be more resilient."



Chris Wolf, MEP, Emergency Management Specialist, Office of Emergency Management

"On the night of July 28, 1997, I was working as a police officer at Colorado State University. Early in the shift, I got a call from my mother-in-law who was watching our two-year-old son. She said that our basement was beginning to flood. Since I lived nearby, I decided to drive home. I realized immediately that the water was too deep and it would be impossible to get there. Also, we had a large youth conference at CSU. By that time, there was quite a bit of water flowing through campus and we could not allow people to leave Moby."



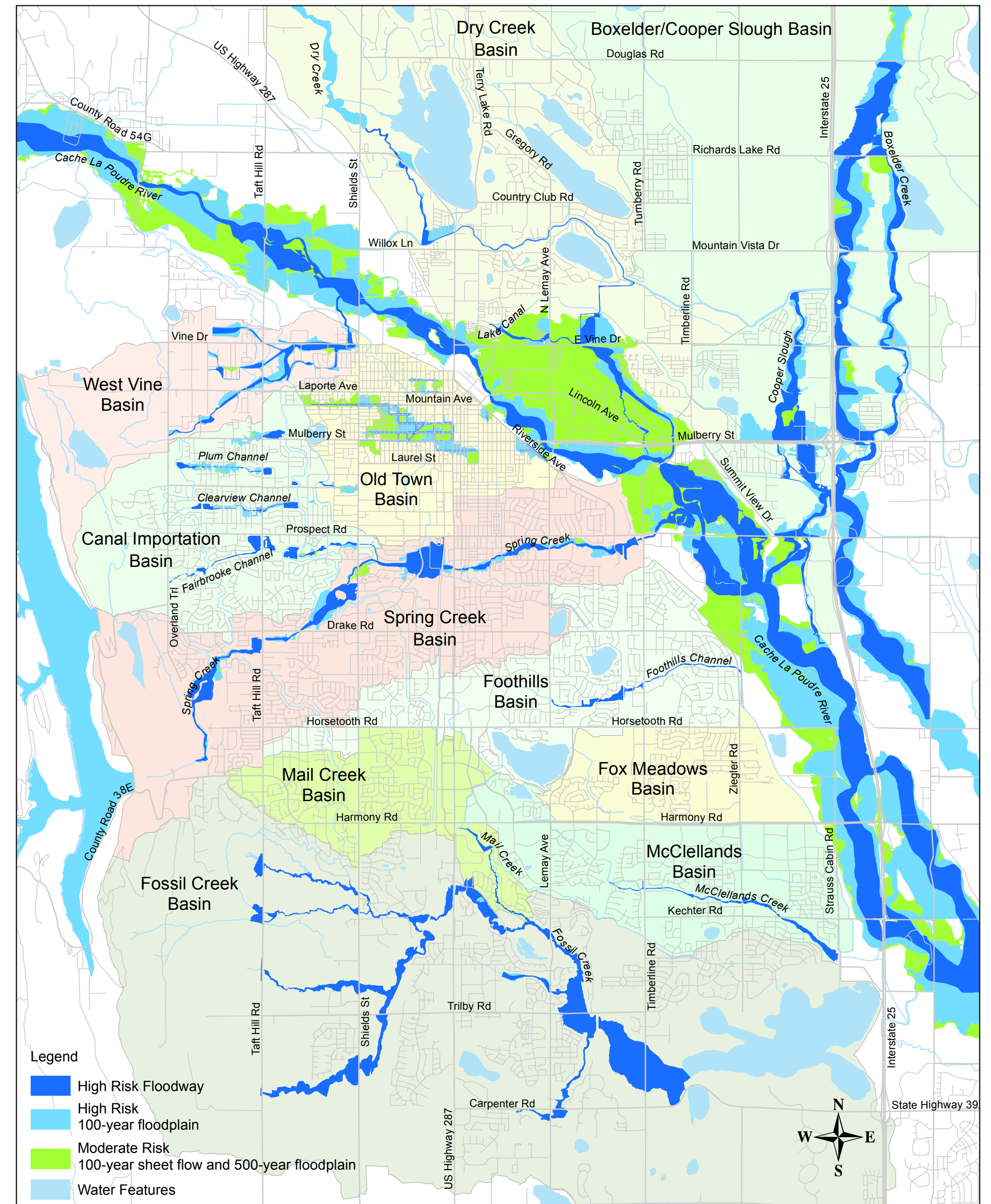
Basil Hadman, Civil Engineer

"I was called to the Fairbrooke Heights neighborhood where a detention pond had overflowed and flooded several homes. I looked down into the window of one home and saw the basement full of water. The floodwaters entered the home from the west window, and exited from the front windows on the east side. The scale of the human tragedy hit me at this point. These peoples' homes were basically a drainage channel, and all their earthly possessions were wiped out."

Everyone Has a Flood Risk: Know Yours

This map represents Fort Collins' floodplains and is continuously updated. To determine if a property is within a floodplain, call Fort Collins Utilities at 970-212-2900, email utilities@fcgov.com or view a detailed map at fcgov.com/floodplain-maps. Additional map information, such as erosion buffer zones, flood elevations and historic flood data is available.

All rivers, streams, tributaries and canals – regardless of size – have the potential to flood. In Fort Collins, major sources of flooding include the Cache la Poudre River, Spring Creek, Dry Creek, Fossil Creek and Boxelder Creek. Urban street flooding also is a hazard. All drainage basins flow to the Cache la Poudre River.



Floodplain Maps Available for Smartphones



iPhone, Android and Windows smartphone users can view the floodplain map for the City of Fort Collins. Search by address or zoom into a specific area. View the maps at fcgov.com/floodplain-maps.

Elevation certificates are available for some properties. Call 970-212-2900 to learn more. FEMA is in the process of preparing new floodplain maps for the Poudre River. Preliminary maps are expected in 2018.