

An Example of a Program for Public Information

Communities that participate in the Community Rating System of the National Flood Insurance Program are encouraged to develop and implement a public information program to inform their residents about local flood hazards and floodplain resources. Credit for such a program is provided according to the criteria described in element PPI (program for public information) in Section 332.c under Activity 330 (Outreach Projects) of the *CRS Coordinator's Manual*. A creditable program provides bonus points for outreach projects (element OP), flood response preparation projects (element FRP), and outreach projects that convey insurance messages (element CPI under Activity 370 (Flood Insurance Promotion)).

The attached PPI-credited document was produced by the City of Fort Collins Floodplain Management Public Information Committee. Fort Collins, Colorado, is a city of 150,000 people situated in the eastern foothills of the Rocky Mountains. This report covers the process the committee followed, the assessment of the flood problems and flood insurance coverage, and the public information efforts underway and planned for the future. The outreach projects were verified at a cycle verification visit in 2020.

Some key points on the Fort Collins example:

- At 65 pages, this is longer than most PPI-credited reports, which tend to range from 20 to 30 pages. The City staff knew it was lengthy, but they wanted a document that fully encompassed local concerns and interests. As with most of the top CRS communities, developing something useful and appropriate to the community came first and working for CRS credit was a secondary consideration.
- The City benefited from active involvement by stakeholders. The City reported that the PPI committee helped build better relations with the staff of Colorado State University (CSU).
- The committee had brainstorming sessions and came up with an imaginative slogan and mascot: "Flood Ready is Our Goal," illustrated by Freddy the Frog.
- The current public information efforts were thoroughly reviewed and described (see pages 20–24).
- The target audiences listed reflect the extensive local input, including CSU students and users of the many trails in the area.
- The committee identified activities that can be done now as well as longer-range projects.
- The tables on pages 35–40 give a clear and thorough listing of projects, messages, stakeholders, timing, etc..
- The flood response preparedness projects (credited as element FRP) are described on pages 42–46.





City of Fort Collins Floodplain Management Public Information Committee:

A Program for Public Information

In Support of FEMA's Community Rating System.

April 2020

City of Fort Collins Floodplain Management Public Information Committee: A Program for Public Information

Executive Summary

The City of Fort Collins, Colorado is a community of approximately 174,800 people along the Colorado Front Range. Fort Collins is subject to both flash flooding and river flooding. The City has a comprehensive floodplain management program that includes public information and preparedness as a main focus. Fort Collins participates in the Federal Emergency Management Agency's Community Rating System (CRS). The CRS is a voluntary incentive program that provides flood insurance discounts to communities that go above and beyond the minimum standards for floodplain management. One of the activities credited under the CRS is public outreach.

In 2014, the City initiated a review of the existing outreach efforts related to flooding. As part of this review, a committee, the City of Fort Collins Floodplain Management Public Information Committee, was formed. This committee was composed of internal and external stakeholders with the goal of developing a "Program for Public Information" that would guide the City of Fort Collins in the coming years. A Program for Public Information was developed and updated annually.

Table of Contents

Chapter 1: Background

Chapter 2: PPI Committee

Chapter 3: Community's Public Information Needs

Chapter 4: Community Messages

Chapter 5: Outreach Projects

Chapter 6: Flood Response Public Information

Chapter 7: Program Adoption and Evaluation

Appendix

Executive Summary (continued)

In January 2020, an update to the 2014 plan was initiated. The committee, which included some original members along with several new members, met four times in January and February.

The Committee's task was to review public information efforts that currently exist in the community, assess the community's needs, develop consistent messages and identify projects to convey those messages. By gathering this group of internal and external stakeholders, partnerships were developed to create consistent messaging for the public related to flooding.

As part of the community needs assessment, the committee re-evaluated the current target areas and audiences. The committee then developed ten Community Message Topics:

- Know Your Flood Hazard
- Insure Your Property for Your Flood Hazard
- Protect People from the Hazard
- Protect Your Property from the Hazard
- Build Responsibly
- Protect Natural Floodplain Functions
- Flood Warning
- Play It Safe in Recreation Areas
- Urban Flooding
- Travel Safe

One or two specific messages were identified for each topic. Previously there had been three to four messages per topic. However, in order to try to have the message used consistently, the number of messages was reduced. The committee paid close attention to using already established messages from stakeholders such as the Red Cross and National Weather Service.

Numerous public information and education projects are already being implemented by the City of Fort Collins and the stakeholders on the committee. These existing projects will be revised and updated to reflect the new messaging developed by the committee. Stakeholders have agreed to help support and sponsor these existing projects in various ways. The additional coordination will provide increased visibility and credibility to the messages. Several new projects were also discussed and will begin to be developed in 2020.

The work of the stakeholders since 2014 has been significant and has resulted in close coordination on projects that promote flood awareness in the community. The efforts of the City of Fort Collins Floodplain Management Public Information Committee will have a long-term impact on the resiliency of the Fort Collins community to the impacts of flooding.

Chapter 1: Background

Fort Collins, Colorado is located along the Front Range, 65 miles north of the state capitol of Denver. With an estimated population of 174,800, in 2020. It is the fourth most populous city in Colorado after Denver, Colorado Springs and Aurora.

Fort Collins participation in NFIP and CRS

Fort Collins has participated in the National Flood Insurance Program (NFIP) since 1979. The Community Rating System (CRS) is a voluntary incentive program coordinated by FEMA that offers discounts on flood insurance

FIGURE 1 - OLD TOWN IN FORT COLLINS, COLORADO

premiums for citizens and businesses in communities that go above and beyond the FEMA minimum standards for floodplain management. *Fort Collins is one of the highest ranked communities in the country and is currently a CRS Class 2, which provides a 40 percent discount on flood insurance premiums.* This document follows the guidance outlined as part of the CRS for public outreach activities.

Flood history

Fort Collins is vulnerable to river and stream flooding, flash floods and urban street flooding. In 1864, a massive flood roared down the Poudre River and destroyed the Camp Collins military post. The settlement was rebuilt on higher ground near present-day Old Town and renamed Fort Collins. More recently, the devastating flood in 1997 resulted in five deaths and an estimated \$200 million in damage. Recent flooding in September 2013 on the Poudre River resulted in minimal damage, due in part to the large amount of open space preserved along the Poudre River corridor.

City and FEMA designated floodplains

FEMA has mapped the flood risk along the Cache la Poudre River, through Fort Collins and along Spring Creek, Dry Creek, Boxelder Creek and Cooper Slough. The City of Fort Collins has taken this a step further and mapped the risk in many other drainage basins through town, resulting in in City-designated floodplains to supplement the FEMA designations.

Twelve drainage basins

The City of Fort Collins has 12 drainage basins: the Cache la Poudre, Dry Creek, Cooper Slough/Boxelder, West Vine, Old Town, Canal Importation, Spring Creek, Foothills, Mail Creek, Fox Meadows, McClellands and Fossil Creek. All have flooded in the past for various reasons and have different features that must be taken into account when considering safety. The *Drainage Basin Master Plan*, approved by City Council in June 2004, describes the flooding history of each basin, identifies potential problem areas and recommends improvements.

In addition, the *Master Plan*:

- Recommends cost-effective projects to remove properties from floodplains, reduce risk and reduce street flooding
- Offers guidance for new development in the basins
- Provides ways to enhance the riparian habitat along stream corridors and improve water quality
- Offers guidance to stabilize streams where necessary

The City continues to update the Master Plan. In more recent years, there have been updates to the plans to incorporate better mapping and modeling and reevaluation of the selected plan for some basins (**Table 1**). In 2012, the Master Plan was updated to include a stream rehabilitation program and identify necessary regional Best Management Practices (BMPs).

Based on current estimates, the remaining improvements identified in the Master Plan are expected to cost \$283 million. Approximately 900 structures and numerous roads would be protected and the damages would be reduced by \$307 million.

Since 1995, The City has spent \$100 million on stormwater capital projects. Since 1988, over 2,500 structures are no longer mapped in the floodplain due to capital improvement projects. However, there are still over 1,000 structures mapped in the 100-year floodplain that are still at risk from flooding, with over half of those in the Old Town Drainage Basin.

Basin Name	Originally Prepared	Last Update
Boxelder/Copper Slough	2006	2018 (LOMR)
Upper Copper Slough	2006	2020 (pending Montava)
Canal Importation	2002	2014 (CIPO)
Upper Dry Creek	2002	
Lower Dry Creek	2002	2019 (LOMR in progress)
North College (NCDID)	2006	2016
Buckingham/Lincoln		2016
Foothills	2002	2019 (in progress)
Fossil Creek	2002	
Stone Creek		2018
Fox Meadows	2003	
Mail Creek	2003	Ayres (2010)
McClellands Creek	ICON (2006)	CSU (2016)
Old Town	Anderson (2002)	ICON (2017)
Poudre River	Ayres (2002)	Ayres [PREP] 2014
Spring Creek	Anderson (2003)	ACE (2007)
West Vine	URS (2002)	ICON (2020 – in progress)

TABLE 1: DRAINAGE BASIN MASTER PLANS

Past public outreach efforts

Fort Collins Utilities takes flood awareness outreach and floodplain education seriously and this effort has continued to increase over time. New opportunities are identified and new approaches are implemented to reach out to the community in the most effective way possible to ensure understanding and safety.

Fort Collins Utilities and other stakeholders have worked on numerous annual public outreach efforts related to flood awareness and safety in the past, including:

- Floodplain owner/renter brochure (for those in the 100-and 500-year floodplain)
- Videos on local cable channels including the City, CSU and Poudre School District
- Displays for Flood Awareness Week (including information on awareness, safety, natural and beneficial floodplain functions, flood history, flood warning, flood insurance, etc.)
- Signs along biking/walking trails throughout town and high water markers illustrating flood history
- An informational mailer specifically for realtors, lenders, insurance agents and property managers
- Social media and web communications
- Bus benches
- Articles in various newsletters and *City News* (a monthly publication delivered with utility bills)
- Participation in local community events with information booths
- Community Presentations
- A Preparedness Calendar
- Education in schools

These efforts are explained in greater detail later in this document.

In addition, one-time events such as the commemoration of the 20-year anniversary of the 1997 flood and the corresponding Flood Education Day have been important community events to raise flood awareness.



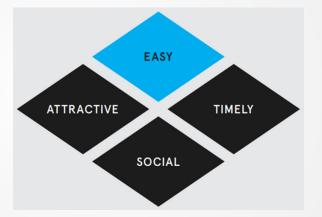


FIGURE 2 – ADVERTISEMENT FOR THE FLOOD EDUCATION DAY IN 2017

Purpose and goals of committee and Program for Public Information

The committee will evaluate the needs of the Fort Collins community and develop innovative and informative floodplain management programs related to public information. This will be a relatively new approach for Fort Collins Utilities as community resources and external stakeholders will be utilized to help spread identified messaging and extend the reach of flood safety awareness messaging in the community.

In 2020, during the first committee meeting Pete lengo of Fort Collins Utilities gave a presentation on Human Centered Design and the E.A.S.T Method.



This framework helped the committee develop the messages and projects to be most meaningful to the selected audiences.

Purpose: to develop a Program for Public Information (PPI) that will guide Fort Collins Utilities Stormwater in the coming years.

Goal: to bring outside stakeholders together with the City to develop partnerships, provide additional expertise and perspectives, and create consistent messaging for

Chapter 2: PPI Committee



FIGURE 3 – 2020 COMMITTEE MEMBERS, L-R: ERIC KOSSORIS: PUBLIC INFORMATION OFFICER WITH FORT COLLINS UTILITIES; BRYAN MENTLIK: RESILIENCE ACTION PARTNERS; BRAD ANDERSON: ANDERSON CONSULTING ENGINEERS; JORDAN WILLIAMS: POUDRE HERITAGE ALLIANCE; JOHN HOLCOMB: POUDRE SCHOOL DISTRICT; JESSICA SCHWINDT: RED CROSS, CINDY MINATTA: BOARD OF REALTORS; MARSHA HILMES-ROBINSON: FLOODPLAIN ADMINISTRATOR; SUSANNE CORDERY: CSU; ZOE SHARK: CITY NATURAL AREAS, ANNEMARIE FUSSELL: WILDLANDS RESTORATION VOLUNTEERS; JUSTIN ZAKOREN: EARTH FORCE; DIANNE TJALKENS: CITY SOCIAL SUSTAINABILITY

The CRS requires that participants on the committee have associations within the community, reaching out to a wide range of audiences that are linked to flooding in some capacity.

The committee was comprised of internal and external stakeholders following the rules set out in the CRS manual. If committee members or their alternates did not attend a meeting, follow-up occurred to gather their input for inclusion. Committee members and their organizations are listed in **Table 2**.

PPI Committee Members

Internal Stakeholders	
Floodplain Administrator/Manager	Marsha Hilmes-Robinson
Public Information Office (PIO)	Eric Kossoris
City of Fort Collins Natural Areas	Zoe Shark Charlotte Norville
City of Fort Collins Social Sustainability	Dianne Tjalkens

External Stakeholders	
Board of Realtors	Cindy Minatta
Red Cross	Jessica Schwindt Ron Hendrick
Poudre School District	John Holcomb Jerry Garrettsen
Resilience Action Partners	Bryan Mentlik Vince Hancock
Colorado State University	Susanne Cordery Fred Haberecht
Earth Force	Justin Zakoren
Wildlands Restoration Volunteers	Annemarie Fussell
Anderson Consulting Engineers	Brad Anderson
Poudre Heritage Alliance	Jordan Williams

TABLE 2 - PPI COMMITTEE MEMBERS

Advisory Committee process steps and outcomes

In order to organize meetings and keep the committee on track with the requirements outlined in the CRS manual, the following checklist was utilized:

- Step 1: Establish a PPI committee identify the community's need for floodrelated information and coordinate resources that can deliver information and create messaging.
- Step 2: Assess the community's public information needs – assess flood problems, identify who needs to be informed and determine what projects are already underway.
 - Review current public communication targeted areas
 - Determine additional target audiences
 - o Delineate target areas
 - Inventory other public information efforts

2020 Meeting schedule

- January 7, 10:00 a.m.-12:30 p.m. 700 Wood St., Poudre Room
- January 23, 10:00 a.m.-12:30 p.m. 700 Wood St., Poudre Room
- January 30, 10:00 a.m.-12:30 p.m. 700 Wood St., Poudre Room
- February 12, 9-11 a.m. 700 Wood St., Poudre Room
- □ Step 3: Formulate messages create outcomes that are objective, observable and measurable. There are six priority topics:
 - 1. Know your flood hazard
 - 2. Insure your property for your flood hazard
 - 3. Protect people from the hazard
 - 4. Protect your property from the hazard
 - 5. Build responsibly
 - 6. Protect natural floodplain functions
- □ Step 4: Identify outreach projects to convey the messages consider which media disseminated through which specific projects would best convey the message(s) to the target audience(s). Review Flood Response Preparation projects.

Advisory Committee process steps and outcomes (continued)

- Step 5: Examine other public information initiatives determine activities a community should pursue to *inform* people and *motivate* them to protect life and property, buy insurance, and protect natural floodplain functions.
 - Map information service
 - Flood protection assistance
 - Flood insurance promotion
 - Drainage system maintenance
 - Flood warning and response
 - o Levees
 - o Dams
- □ Step 6: Prepare the PPI document create a formal written document to be recorded and adopted by the community's governing body, City Council.
- **Step 7: Implement, monitor and evaluate the program** –as needed.

The PPI document needs to describe how the monitoring, evaluation and revision will be conducted. Evaluation must be conducted by the PPI committee.

Staff can collect data on project implementation and make recommendations, but for CRS credit, the committee must review progress and agree on any changes.

The committee also needs to review and approve the annual evaluation report that is submitted to the governing body and included in the community's annual CRS re-certification.

Note that the community may use any 12-month period for its "public information year."

- **Evaluation report:** There is no required report format, but the annual report must include:
 - Target audiences, messages, and desired outcomes
 - Projects in the PPI to convey messages
 - Which projects were implemented
 - Why some projects were not implemented (if any)
 - What progress was made toward the desired outcomes
 - What should be changed (including what messages, outcomes and projects should be revised or dropped, and what new ones should be initiated)

The Power Point presentations used in the committee meetings are in **Appendix 1**.

Chapter 3: Community's Public Information Needs

Description of Fort Collins

Fort Collins was founded along the northern part of the Colorado Front Range as a military fort in 1864 and incorporated as a town in 1873. The Front Range community is nestled along the northern part of the Colorado foothills of the Rocky Mountains and the banks of the Cache la Poudre River. Fort Collins encompasses approximately 57 square miles, has a total of 1,922 street miles and lies approximately 5,000 feet above sea level.

The estimated population of Fort Collins in 2020 was 174,870 people with an average annual population growth rate of 2 percent. The median age is 29.1 and approximately 54.5 percent of the population has completed four or more years of college. The median household income is \$62,132 and the median family income is \$76,341. But

Utilizing GIS data from 2014, <u>**Table 3**</u> shows the number and types of buildings in the city. Many structures in Fort Collins have basements or crawl spaces and many basements are used as apartments. The total number of buildings increased by 3,800 from 2005 to 2014.



FIGURE 4 – LOCATION MAP OF FORT COLLINS, CO

Building Class	Number of Buildings 2005 Data	Number of Buildings 2014 Data
General	40,934	44,465
Government	528	416
Medical	22	30
Education	345	405
Transportation		1
Commercial	1,628	1,758
Religious	126	139
Recreation	4	126
Cultural	1	2
Hotel		7
Industrial	307	346
TOTAL	43,895	47,695

TABLE 3 - NUMBER AND

TYPES OF BUILDINGS

Description of Fort Collins (continued)

Fort Collins is home to Colorado State University (CSU). CSU was founded in 1870 and has a current on-campus enrollment of 28,446 students. There are approximately 1,882 faculty members and 4,800 additional employees at CSU, making it the largest employer in Fort Collins. The CSU campuses include the main campus in the center of Fort Collins, the Foothills Campus on the west side of town and the CSU Veterinary Teaching Hospital just south of the main campus.

Fort Collins has a mix of manufacturing and service-related businesses. Many high-tech businesses have relocated to Fort Collins because of the resources of Colorado State University and its research facilities. In addition, Fort Collins is home to many small business and entrepreneurial ventures. The brewery industry is significant in Fort Collins, ranging from small craft breweries to large national breweries, such as Anheuser Busch.



FIGURE 5 - THE OVAL AT COLORADO STATE UNIVERSITY

Flood hazards

Fort Collins has a long history of flooding and even its founding is attributable to a flood. Camp Collins was a small military outpost originally located along the banks of the Poudre River near Laporte, Colorado, several miles upstream from present-day Fort Collins. In 1864, Camp Collins was destroyed by a flood and the military leaders relocated downstream along a higher bluff in what is now present-day Old Town Fort Collins.

Fort Collins is subject to flash flooding from all its major drainageways as a result of thunderstorms between April and September. The monsoons in late July and early August can result in intense flash flooding, such as that experienced during the 1997 flood. The Poudre River also is subject to snowmelt and rain-on-snow events in late spring and early summer.

Three levees are located along the Poudre River:

Oxbow Levee – Located between Lincoln and Linden Street. This levee protects the Buckingham Neighborhood and businesses along the north side of Lincoln Avenue.

RPATH Levee – Located upstream of Timberline Road. This levee keeps water in the main channel and protects business along Timberline Road near Prospect Road.

Drake Water Reclamation Facility Levee -

Protects the City's Drake Water Reclamation Facility and is located along the north and west side of the facility.

There also are numerous high hazard dams, including the four large dams on Horsetooth Reservoir operated by the Bureau of Reclamation that have the potential to impact Fort Collins. <u>Table 4</u> summarizes Fort Collins' flood history.



A MAJOR FLOOD IN 1904 ALONG THE CACHE LA POUDRE RIVER DESTROYED NUMEROUS BRIDGES, INCLUDING THIS RAILROAD BRIDGE.



THE 1997 SPRING CREEK FLASH FLOOD RESULTED IN FIVE LIVES LOST AND OVER \$200 MILLION IN PROPERTY DAMAGE. IT WAS ANALYZED TO BE GREATER THAN A 500-YEAR FLOOD.



FLOODING ALONG THE CACHE LA POUDRE RIVER ON SEPTEMBER 12, 2013 NEAR THE MCMURRY NATURAL AREA.

FIGURE 6 – PAST FLOOD EXAMPLES

Flood hazards (continued)

Drainage Basins	Dates	Descriptions
Cache la Poudre River	1844, 1864, 1891, 1904, 1923, 1930, 1976, 1983, 1999, 2010, 2011 and 2013	The three largest floods occurred in 1864, 1891 and 1904, with peaks of approximately 21,000 cubic feet per second (cfs). For comparison, the discharge of the Poudre River at "flood stage" is about 4,000 cfs. Flooding on the Poudre is primarily from snowmelt in late May and June. However, flash flooding can occur at any time. A severe flood has not occurred in more than 90 years.
Spring Creek	1902, 1904, 1938, 1949, 1951, 1961, 1977, 1983 and 1997	The 1997 flood resulted in five deaths, destruction of 120 mobile homes and damage to 2,000 homes and businesses. This flood was considered to be greater than a 500-year event.
Dry Creek	No serious flooding since about 1950	The absence of even minor flooding is generally attributed to the network of irrigation canals that have some capacity for intercepting small to moderate Dry Creek flows.
Fossil Creek	1902, 1938, 1965, 1977, 1979, 1997, 1999 and 2007	Fossil Creek is relatively undeveloped and past floods have gone unnoticed. In addition to flooding hazards, Fossil Creek also is susceptible to bank erosion.
Boxelder Creek/ Cooper Slough	1909, 1922, 1930, 1937, 1947, 1963, 1967, 1969 and 2007	Boxelder Creek has a drainage area of 251 square miles and 176 square miles now are controlled by Soil Conservation Service flood control dams near Wellington.
Old Town Basin	1904, 1933, 1938, 1951, 1977, 1983, 1988, 1992, 1997, 2009, 2018	Street flooding is the primary problem in this basin.
Canal Importation Basin	1938, 1951, 1975, 1992, 1997, 1999 and 2009	There are several small drainage areas in this basin. Development prior to drainage criteria encroached on the channels, reduced the flow capacity and caused flooding. The irrigation canals also overflow their banks and cause flooding
West Vine Basin	1980, 1997 and 1999 (Past floods were not well documented)	Localized flooding occurs due to encroachment on drainages and from irrigation ditch spills.

TABLE 4 – FLOODING HISTORY IN FORT COLLINS

Floodplain mapping

Fort Collins is divided into 12 drainage basins (Figure 7).

Floodplains have been mapped in most of the drainage basins (**Figure 8**). Four of these drainage basins have Federal Emergency Management Agency (FEMA) designated floodplains and seven basins have City-designated floodplains (**Table 5**). One of those basins, Fox Meadows, does not have any mapped floodplains.

There are approximately 3,200 acres in the mapped 100-year floodplain. However, over 1,600 of those acres are preserved as open space in the form of parks or natural areas.

The effective FEMA Flood Insurance Rate Map is dated May 22, 2012. FEMA is in the process of remapping the Cache la Poudre River as part of RiskMAP. Each of the Citydesignated floodplains was developed as part of the Drainage Basin Master Planning process. The floodplain maps can be viewed on the Fort Collins Utilities' website at *fcgov.com/floodplain-maps*. These maps are continuously updated.

In addition to mapping floodplains, the City also has mapped Erosion Buffer Zones on Fossil Creek and Boxelder Creek. These Buffer Zones designate areas of channel instability and potential future lateral migration of the channel.

FEMA-designated Floodplains	City-designated Floodplains
Cache la Poudre River (Poudre River)	Old Town
Spring Creek	West Vine Basin
Dry Creek	Canal Importation Basin
Boxelder Creek and Cooper Slough	Fossil Creek
cooper slough	Foothills Channel
	Mail Creek
	McClellands Creek

TABLE 5 - FEMA AND CITY-DESIGNATED FLOODPLAINS

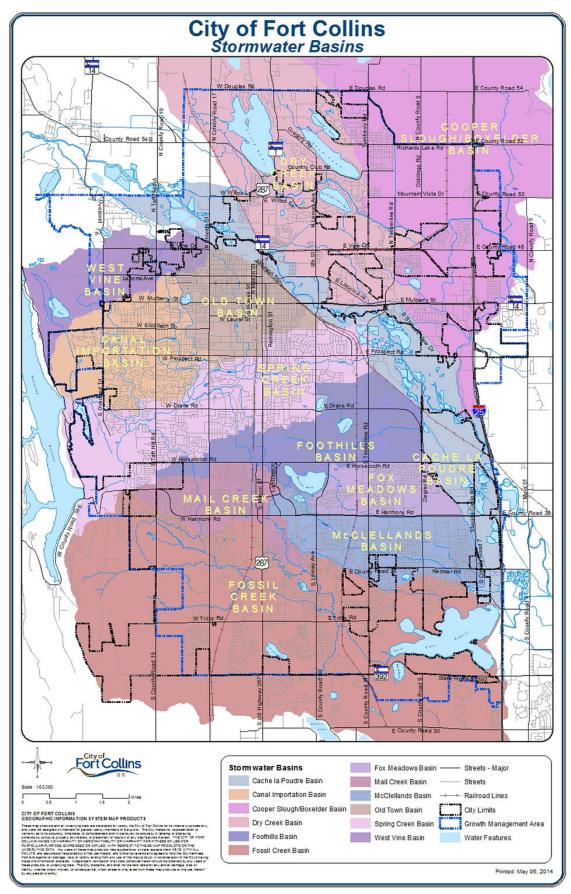


FIGURE 7 - FORT COLLINS STORMWATER DRAINAGE BASINS

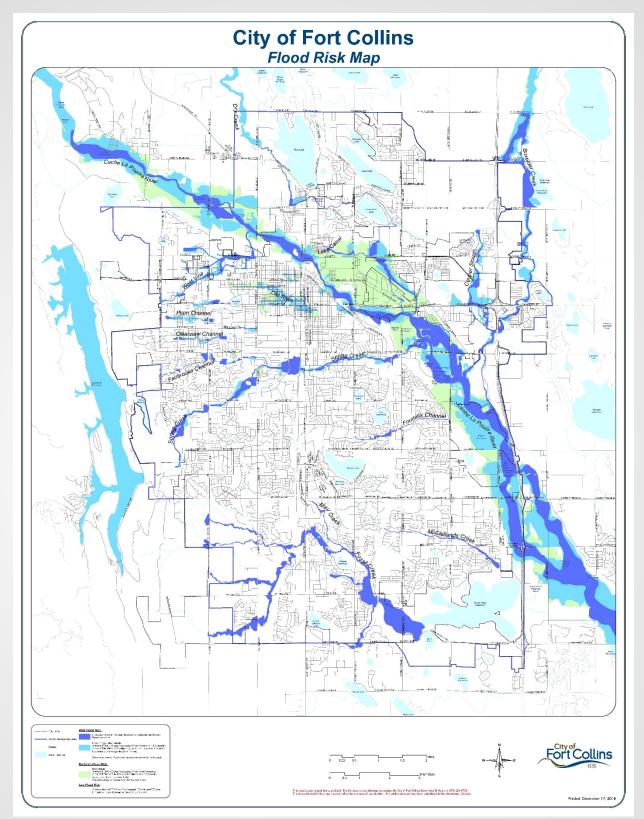


FIGURE 8 - FORT COLLINS FLOOD RISK MAP SHOWING BOTH FEMA AND CITY-DESIGNATED FLOODPLAINS

Risk to people

Because of the nature of flash flooding, there is relatively little warning time, so the risk to people is high. Outreach efforts need to be focused on public safety and what to do and not do when a flood occurs. This is especially true in the case of informing the public not to drive through floodwaters since the majority of fatalities in floods are a result of driving (Figure 9).

In many cases, it is better to not evacuate, but rather to shelter-in-place and move to a higher floor if possible. This is where preparedness planning is critical. In addition, because of the high percentage of basement apartments in Fort Collins, life-safety issues while sleeping are of high concern.

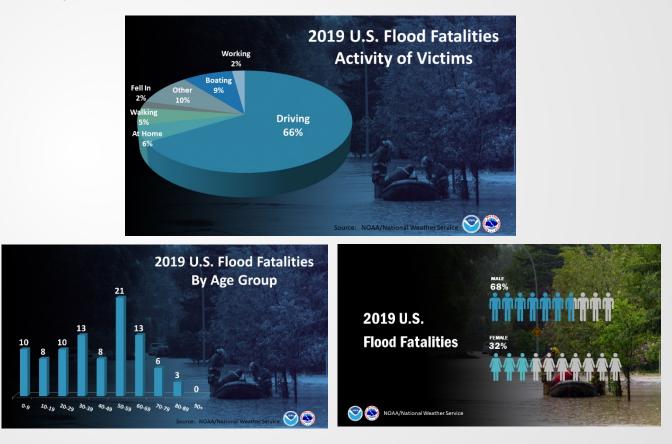


FIGURE 9 - 2013 U.S. FLOOD FATALITY STATISTICS

Risk to structures

Fort Collins has a total of 1,060 structures located in the mapped 100-year floodplain. Table 6 shows the structures in the floodplain by basin. Several Capital Improvement projects in recent years including the Boxelder project and the West Vine Outfall project have reduced the number of structures mapped in the floodplain. More than half of the total at-risk structures are located in the Old Town Floodplain, which is subject to street flooding since there are no remaining natural drainageways to convey the water. During the past 20 years, Old Town has been the location of several large capital improvement projects to install large storm sewers that capture storm runoff and convey it to the Poudre River. However, there are many structures, both residential and non-residential, still at risk. Future capital projects are being planned to help reduce the risk in Old town. Other basins with high numbers of structures at risk include the Poudre River, Spring Creek and West Vine.

The Community Rating System Self-Assessment Tool was used in 2014 to analyze the structures at risk.

Of the structures in the 100-year floodplain:

- 83 percent are one-to-four family residential structures
- 2 percent are multi-family
- 15 percent are non-residential structures

There also are several critical facilities at risk in the 100-year and 500-year floodplain.

Floodplain Name	Physical structures greater than 500 sq. ft. (2019 data)	
FEMA Floodplains		
Boxelder / Cooper Slough	7	
Dry Creek	29	
Poudre River	57	
Spring Creek	87	
FEMA Basin TOTAL	180	
City Floodplains		
Canal Importation	188	
Foothills	6	
Fossil Creek	25	
Mail Creek	0	
McClelland's Creek	0	
Old Town	579	
West Vine	82	
City Basin TOTAL	880	
TOTAL (all basins)	1,060	

TABLE 6 - STRUCTURES IN FLOODPLAINS

Flood insurance and repetitive loss information

Fort Collins currently has a total of 354 flood insurance policies (December 2019 data) with an average premium of \$585.00. The majority are Preferred Risk Policies in areas mapped outside of the FEMA 100-year floodplain.

Note: many of these may be in City-designated floodplains, such as Old Town, which still qualify for the Preferred Risk Policy.

Only 55 flood policies are in the FEMA 100-year floodplain, which is approximately 30 percent of the structures mapped in the FEMA floodplain. There is one structure that is designated by FEMA as a Repetitive Loss Property because it has had two or more flood insurance claims of more than \$1,000 during a rolling 10-year period. This structure is in the Spring Creek floodplain. Examination of the claim dates and discussion with the owners indicates that the flood damage was due to local drainage issues rather than flooding from Spring Creek.



FIGURE 10 - FLOODING SEPTEMBER 2013 ALONG VINE DRIVE JUST EAST OF COLLEGE AVENUE

Overview of past public information efforts

Staff from Fort Collins Utilities Floodplain Administration shared their past public outreach efforts related to flooding. Past programs and tactics were reviewed with the committee to give context and reference for moving forward so that new ideas and approaches could be developed. Committee members were also encouraged to share and describe their past outreach efforts to help identify overlap, opportunities to partner and other new ideas.

Staples of Fort Collins Utilities flood awareness outreach efforts include:

Brochure to residents

- o Targeted to owners/renters in the FEMA mapped 100- and 500-year floodplain
- Will cover all topics including Information on flood hazards, flood insurance, responsible building, floodplain regulation flood history, natural floodplain functions and flood warning, among other topics
- Will include endorsements and logos from other stakeholders
- o Other Stakeholders also distribute the brochure

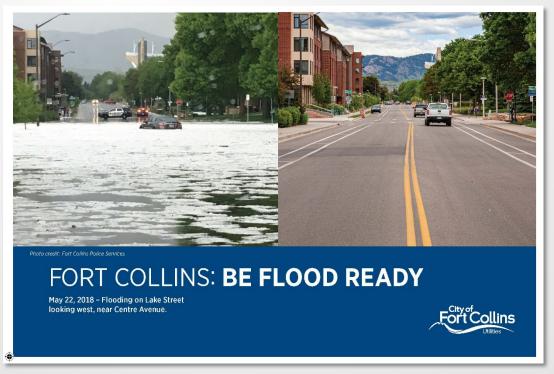


FIGURE 11 - FLOOD BROCHURE TO RESIDENTS

• Flood Awareness Week Displays

- Displays with flood outreach information in numerous strategic locations
- o Multiple stakeholder brochures used

• Flood Videos

- Annual videos on the local City cable channel
- Videos also shown on CSU and Poudre School District channels
- Information and footage from past floods and general safety messaging
- Letter to realtors, lenders, property managers and insurance agents
 - Targeted to those professional groups who work closely with individuals that may be purchasing homes or considering purchasing homes in the floodplain
 - Annual letter with information and resources on regulations, flood hazards and insurance options
 - o Coordination with the Board of Realtors
- City News (monthly publication distributed to all customers in utility bills or electronically)
 - Opportunity to reach the entire city in the months of May and July
 - Generally, includes messaging about flood hazards, insurance facts, regulations and responsible building, and flood warning
 - Stream dumping regulations and keeping drainage systems clean is promoted
 - o Advertises property protection site visits for drainage issues
- Dump No Waste Inlet Markers
 - Markers and stencils on stormwater inlets to promote water quality protection
- Flood Protection Assistance and Site Visits
 - o Provide information on property protection to citizens and businesses
 - After site visits, a short write-up with observations and mitigation suggestions is provided

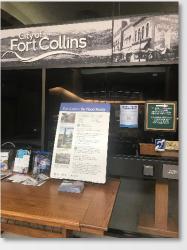


FIGURE 12 - FLOOD AWARENESS DISPLAY BOARD

• Social media

- General flood awareness, special messages about Flood Awareness Week and information during emergencies, natural and beneficial functions of the floodplain, and more
- o Other Stakeholders share these messages

• Utilities website (fcgov.com/utilities)

- o Comprehensive source for floodplain related information in Fort Collins
- User-friendly and interactive flood warning system
- Real-time stream flow and rain gauge data
- Preparedness and safety information
- Flood insurance information
- Floodplain regulations
- Flood history
- Protection of natural and beneficial floodplain functions and water quality

Bus Benches

- A proven, successful platform to reach local drivers
- Often placed at intersections that could be potential flood hazards or on streets that are near potential flood hazards

Numerous community events and festivals

- Successful and impactful way to connect with community members
- Nearly all outreach and educational materials are distributed at these events to a broad audience
- Other stakeholders also participate in these activities

• Disaster Preparedness Calendar

- Produced by Poudre Fire Authority
- o Distributed throughout Fort Collins



FIGURE 13 – BUS BENCH SIGNS

CSU Housing Fair

- An impactful annual event targeting CSU students who are looking for housing offcampus
- More than 2,000 students usually attend
- Discuss flood risk, flood insurance, flood safety, etc.
- Participation in this event is a result of the 2014 flood education committee meetings

Community Presentations

• These presentations include talks to community groups and organizations and guided walks by the Natural Areas Program

Earth Force RISE Program

- This program started in 2018 and is funded by FEMA
- Experience based learning program in the schools to promote flood mitigation and awareness

Children's Water Festival

- Targeted to Poudre School District third graders
- Hands on-learning about flood risk, flood safety, preparedness
- Multiple stakeholders involved 0

Messaging to Homeless Population about Safety

• Coordination with Homeless Service Providers to provide information on flood safety and flood warning



FIGURE 14 - CSU HOUSING FAIR

FIGURE 15 – CHILDREN'S WATER FESTIVAL AND THE FLOOD SAFETY RELAY RACE



- Trail signs and high water markers
 - Extensive trail system, trail signs and high water markers illustrating and detailing local flood history and natural and beneficial floodplain functions
 - High water mark signs are also located on the CSU campus

There were a couple of projects previously identified that have not been able to be implemented on a regular basis, including:

- Realtor Training
- CSU Newsletter

These projects will be looked at again for 2020.



FIGURE 16 - TRAIL SIGN AND HIGH WATER MARKER



FIGURE 17 - HIGH WATER MARK AT CSU

Target areas and audiences

The committee reviewed the previous list of target areas and audiences. A brainstorming session reviewed other potential target areas and audiences in the community that have not received much attention in the past or could be communicated with in a new way. The committee also discussed target audiences of other stakeholders and how those audiences could be integrated into existing audiences. The committee came up with several new, potential audiences to reach out to and new ways to approach them. Several target audiences were eliminated from the previous list in order to provide more focused messaging.

Committee members divided into smaller groups and were given large copies of floodplain maps for the entire city area. Each group circled potential areas of concern on the maps and then discussed possible target audiences.





FIGURE 18 - PPI COMMITTEE WORK SESSION

Primary target areas and audiences selected by the committee for 2020:

Mapped 100-year and 500-year floodplain

This is a critical audience due to its potential level of risk and location. This group has been heavily focused on in the past and will continue to be a primary target audience.

Repetitive loss area

This is required to be targeted by the CRS because it has had more than two flood insurance claims greater than \$1,000 during a 10-year period. The message to this audience is specialized because of its unique needs with a special emphasis on how owners may reconfigure parts of their property to eliminate repetitive flood situations. Currently, Fort Collins only has one repetitive loss property.

CSU Community

A large audience and area in the community situated in a drainage basin with high flood potential. The CSU campus has experienced flooding numerous times in the past. This target area includes the three CSU campuses, including:

- Main Campus in the center of Fort Collins
- CSU Veterinarian Teaching Hospital
- Foothills Campus on the west side of Fort Collins

The target audience would include faculty, staff and students, including students that live offcampus. This audience exists both in the area surrounding campus and in the community at large, so flood risk outreach is very important. A strong partnership with the university will be important for reaching this audience.



CSU students living off-campus

An important sub-group of the CSU campus target area. These are specifically students who live off-campus. Most of this audience rent apartments in the Old Town and the Canal Importation basins. Since many of these apartments are in basements, they are subject to greater flood risks. Many of these students are not from Fort Collins and may be unfamiliar with flood issues in the area. Additional emphasis needs to be focused on this target audience to promote awareness of the flood risks as it has not been targeted in the past.

Poudre School District Community

This is a critical target audience that includes students, parents and staff. Students have the potential to take the information home to share with their parents. Educating students about flooding and the natural and beneficial functions of floodplains is an important goal. Information provided to this target audience needs to be age appropriate and presented using different techniques. Reaching out to staff, such as bus drivers, to know how to respond in an emergency is critical.

Target areas and audiences (continued)

Primary target audiences for 2014 (continued)

Drivers

This is a primary target audience due to Fort Collins' history of flash flooding and urban street flooding. Most flood-related deaths in the U.S. occur in cars. This audience needs specific messaging advising them not to drive through floodwaters.

Realtors, lenders, insurance agents and property management agencies

Because these professionals are on the front lines of their fields, they can reach out to clients and share information on flood risks, flood insurance and how to build responsibly. It is important for them to know where to get accurate flood risk and mitigation information. By sharing this information with their clients, the community will be more informed and able to make safer, long-term decisions.

Trail and Poudre River Recreation users

Fort Collins has a wonderful network of bike and pedestrian trails with thousands of daily users. Many of these trails run parallel to the City's floodplains and are in Parks and Natural Areas. This offers a great opportunity to reach a captive audience and provide flood related information. Tubing and kayaking on the Poudre River have become popular activities during higher water on the Poudre River. Poudre Fire Authority, the City's Natural Areas and Parks Programs, and Poudre Heritage Alliance along with other organizations have teamed up to promote safety for recreation users. Tying trail and other recreation users together into one audience seemed appropriate.



FIGURE 19 - CARS DRIVING THROUGH FLOODWATER AT MULBERRY ST. AND COLLEGE AVE., MAY 2018

Target areas and audiences (continued)

Primary target audiences for 2020 (continued)

Non-English speaking populations

This is a new target audience. The committee felt it was important to provide more resources to non-English speaking populations, especially Spanish speakers. Currently, the City's flood awareness poster and a few FEMA brochures are the only materials available in Spanish. It is estimated that six percent of the Fort Collins population are Spanish speakers. Translation services will be utilized to offer more outreach materials in Spanish.

Vulnerable population facilities

This is also a new target audience. The committee felt it was important to reach out to service providers in the community that assist the elderly, disabled, homeless, children, and others that may require more assistance during a flood. By providing these groups more information they will be able to provide protections for the most vulnerable in our community.

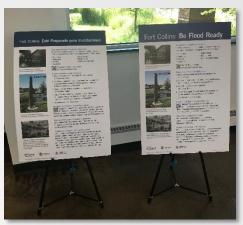


FIGURE 20 – SPANISH AND ENGLISH FLOOD AWARENESS DISPLAY AT THE AZATLAN RECREATION CENTER

Urban Area

Previously, this target area focused only on Old Town. However, the committee felt this needed to be broader and therefore, renamed it to be the Urban Area, but a special emphasis will continue to be on Old Town. Over 50 percent of the structures that exist in the 100-year floodplain are in the Old Town basin. Many citizens do not consider themselves to be at risk because there are no obvious stream channels. However, the streets convey floodwaters, resulting in urban street flooding. Many of the homes and businesses in this area have basements and many of those basements serve as rental properties. Redevelopment is actively taking place in these areas.

Chapter 4: Community Messages

Several committee meetings were dedicated to developing the topics and messages to be used in the outreach projects. The committee broke up into smaller groups for discussion and brainstorming. The previous topics and messages were reviewed and discussed

At the first committee meeting, the committee learned about the Human Centered Design and the E.A.S.T Method.

- Easy
- Attractive
- Social
- Timely

This framework helped the committee develop the messages. Another important factor used to develop the messages was to make sure the messages were action oriented.

The Committee decided to change two of the additional topics and modify another. The new topics are Play It Safe in Recreation Areas and Urban Flooding. The new Play it Safe topic ties with outreach other stakeholders are doing. The Travel Safe topic is a modification of the Drive Safe topic that was previously used, but now encompasses more modes of travel including walking, biking and driving.

The committee also reduced the number of messages that had been previously identified for each topic. The maximum number of messages for any topic is now two. The committee felt it was important to utilize consistent messaging from other stakeholders and therefore, messages from the Red Cross, National Weather Service and other organizations were included in this list.

Table 7 identifies the selected topics and messages. The list has been provided to the committee stakeholders to use in their various outreach efforts.

Six CRS Priority Topics	Proposed Messages
1. Know your flood hazard	 Everyone has flood risks: know yours. Fort Collins has a flood history: it's not if, but when.
2. Insure your property for your flood hazard	 Only flood insurance covers floods. Purchase Flood Insurance. Home and Renter's Insurance ≠ Flood Insurance. Purchase Flood Insurance.
3. Protect people from the hazard	 Get a kit, make a plan, be informed. (Red Cross message)
4. Protect your property from the hazard	 Learn how to protect your property from flood damage.
5. Build Responsibly	Build responsibly: Know the floodplain regulations.
6. Protect natural floodplain functions	 Only rain down the storm drain. Protect wetlands, waterways, and river/stream banksthey protect you.
Additional Topics	Proposed Messages
7. Flood Warning	 We can't warn you, if we can't reach you. Sign up for LETA 911. Knowledge is power! Stay informed during a flood.
8. Play It Safe in Recreation Areas	 Play it safe on the Poudre – Know before you go. Respect the power of water – play it safe.
9. Urban Flooding	 Urban flooding – know the risk. Basements, streets, sidewalks and trails may become unsafe.
10. Travel Safe	Don't enter, drive, walk or bike through floodwaters.Turn around, don't drown.

TABLE 7 - CRS PRIORITY TOPICS AND MESSAGES

Outcomes

Outcomes are extremely difficult to quantify for public outreach messaging related to flood awareness. Some of the original outcomes that were identified included:

- Increase in hits to on-line floodplain map
- Increase in flood insurance policies
- More families have a disaster supply kit
- Fewer rescues
- Fewer floodplain enforcement actions
- Less trash and pollutants down the storm drain
- Increase in hits on flood warning website

Since the plan was first developed in 2014, we have attempted to track such metrics as:

- Number of hits on the website
- Number of flood insurance policies
- Number of site visit requests
- Number of floodplain enforcement actions

There are many variables that influence these metrics with the most important being the weather and changes in floodplain mapping. If we have higher spring snowmelt on the Poudre River, we see an increase in website hits. If we have a rainy year, we see a higher number of site visit requests to look at wet basements and drainage issues. The number of flood policies is very much tied to changes in floodplain mapping. The City has recently completed several large flood control projects that reduced the floodplain. This has resulted in a decrease in flood policies. Furthermore, some outcomes are difficult to quantify such as fewer rescues or fewer enforcement actions when we only have a maximum of one or two per year.

Therefore, the committee did not spend any significant time discussing outcome goals other than to continue to reach as many people as possible with consistent and timely messages. The desired outcomes continue to be the same regardless of if we can quantify the metric or if the metric has other influencing variables.

31

Slogan and mascot

The committee voted to keep the overall slogan that was developed in the 2014 plan that has been being used by Fort Collins Utilities and other stakeholders:

Fort Collins: Be Flood Ready

Because Fort Collins is used in the slogan, it makes the message locally relevant. This message also embodies Utilities' desire for action. This slogan will be used along with other messaging to convey actions for the various specific topics.

"Freddy the Frog," will also continue as our mascot (Figure 21).

The letters in FROG represent the idea:

Flood

Ready is

Our

Goal

The mascot will be incorporated into projects to offer tips on flood preparedness and will be specifically used in school flood education projects.



FIGURE 21 - FREDDY THE FROG

Chapter 4: Community Messages

Chapter 5: Outreach Projects

Numerous outreach and education projects are already being implemented by the City of Fort Collins and the stakeholders on the committee (**Table 8**). However, some of the outreach projects need to be revised and updated to reflect the messaging developed by the committee. In addition, several stakeholders agreed to help support and sponsor these existing projects in various ways. This additional coordination will provide increased visibility and credibility to the messages. The recommended changes to the existing projects are listed in **Table 8**.

The committee generated numerous ideas for future projects. Both existing and proposed projects were evaluated by the committee using an "Impact-Effort" matrix (**Figure 22**). This helped the committee determine which projects to pursue for 2020 (**Table 8**). In the photo below, the green sticky notes are the existing projects and he pink sticky notes are the proposed projects.

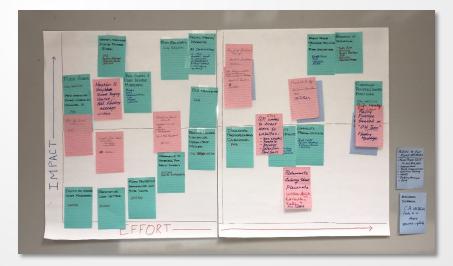


FIGURE 22 – IMPACT-EFFORT MATRIX USED TO EVALUATE THE PROPOSED PROJECTS

One of the key changes to existing projects for 2020 will be to try to better reach non-English speaking residents. This was a clear desire of the committee. Therefore, the flood brochure will be translated and distributed through community organizations. The City will also plan to have one of the bus benches in Spanish and have it located near a largely Spanish-speaking area of the city. Social media will also be used to reach this key audience.

Through the partnerships developed to implement these projects, Utilities will be able to reach target audiences more effectively. **Table 8** lists the target areas and audiences for the respective projects. Some target areas and audiences have multiple projects. Some projects also will target multiple areas or audiences.

Clearly, the Fort Collins Flood Education Committee stakeholders have made strong commitments to flood education in Fort Collins.

Additional CRS activities integrated into projects

The Community Rating System is a program that provides credit to communities for implementing a variety of stormwater and floodplain management activities and many of these activities have a public outreach component. These additional outreach requirements have been integrated into some of the proposed projects.

These include:

- Map information services (Activity 320) Ex. Map in Floodplain Brochure, Realtor mailer, social media
- Website (Activity 350) cover all topics
- Property protection site visits (Activity 360) Ex. May City News article
- Natural function open space (Activity 420) Ex. signage in Natural Areas and educational programs offered by Master Naturalists
- Stream dumping regulations (Activity 540) Ex. May City News article and Floodplain Brochure
- Repetitive loss properties (Activity 510) Mailer to Repetitive Loss property
- Flood warning (Activity 610) Ex. July City News article, Floodplain Brochure, and social media

	Table	Table 8: Proposed Floodplain Education Projects	dplain Educa	tion Projects		
Projects	Message Topics	Audience	Stakeholder	Action	Completed/Not Completed	Recommended Changes
Outcome achieved?	Were messages achieved?	Completed?	Support		and why	
	(Yes unless noted otherwise)	(Yes unless noted otherwise)	ALL or some?			
	Ex	Existing Projects that will Continue (Some with Enhancements)	tinue (Some with E	nhancements)		
Floodplain Owner/Renter	-Know Your Flood Hazard	Residents in the 100- and	Utilities	Prepare brochure and	Completed	Poudre Heritage Alliance
Brochure	-Insure Your Property -Protect Peonle from Hazard	500-Year Floodplain		mailing		 logo on brochure, text
OP#1	-Protect Property from Hazard	Non-English Speakers	CSU	Distribute brochures at	Not Completed	Utilities - Translate
	-Build Responsibly			the start of school		brochure into Spanish
	-Protect Natural Floodplain	Urban Areas				and distribute with
Mailed to 5,010 owners and	Functions		Natural Areas	-Natural & beneficial	Completed	community organizations
residents in 2019	-Flood Warning			functions endorsement		
	-Play it Safe in Recreation Areas					For Old Town – Have a
	-Urban Flooding Trevel Safe		FEMA	Logo on brochure	Completed	special message on front about Lichan flood risb22
			Red Cross	Logo an brachure,	Completed	
				Preparedness section,		
Flood Videos	-Know Your Flood Hazard	General	Utilities	Cable Channel 14	Completed – includes two	
	-Insure Your Property				new videos	
OP#18 - City	-Protect People from Hazard	CSU Community	CSU	CSU plays videos on		
OP#19 - CSU	-Protect Property from Hazard			Channel 11	Completed	
OP#22 - PSD	-Protect Natural Floodplain	PSD Community				
	Functions					
	-Flood Warning		PSD	PSD plays videos on their	Completed	
	-Play it Safe in Recreation Areas			Cable Channel		
	-Urban Flooding					
	-Travel Safe					
Bus Benches	-Know Your Flood Hazard	Drivers	Utilities	6 benches around town	Completed	Utilities in coordination
	- I ravel Sate			during flood season		with Parks - Signage for
0P#3		Non-English Speakers - Have				trails and trail closures
		possible				with increases
						CSII – signage for
						underpasses
High Water Markers	-Know Your Flood Hazard	Trail Users	csu	2 High Water Marks on	Completed	
	 Protect People from Hazard 			Campus. More planned		
OP#4 - City	-Protect your property			for the future		
0r#5 - CSU	-Protect Natural Floodplain					
	Functions Plan it Safe in Portroation Aroan		Utilities	6 High Water Mark Signs	Completed	
	-Flood Warning-					
	1		Utilities and FEMA	2 High Water Mark Signs	Completed – 2017	
				on the Poudre		

	Table	Table 8: Proposed Floodplain Education Projects	dplain Educa	tion Projects		
Projects Outcome achieved?	Message Topics Were messages achieved? (Yes unless noted otherwise)	Audience Completed? (Yes unless noted otherwise)	Stakeholder Support	Action	Completed/Not Completed and why	Recommended Changes
Trail Signs	- Know Your Flood Hazard	Trail Users and Poudre River	Utilities	Multiple Signs	Completed	
OP#8	Functions		Utilities and FEMA	2013 Flood Signs along Poudre River	Completed in 2018	
	- Know Your Flood Hazard		Natural Areas	Multiple Trail Signs	Completed	
	- Play It Safe		WRV	1 sign location (Dragonfly Lair),	Completed	
			Poudre Heritage, PFA, Natural Areas	Play It Safe kiosk with brochures, safety signage along Poudre River	Completed 2019	
Social Media/Website OP#9	-Know Your Flood Hazard -Insure Your Property -Protect People from Hazard	General Non-English Speakers	Utilities	At least 6 social media announcements. Comprehensive website	Completed	Add messages in Spanish in 2020.
	-Protect Property from Hazard -Build Responsibly -Protect Natural Floodplain	Urban Areas		includes mapping and flood warning		Target the Urban Area with messages in 2020.
	Functions -Flood Warning -Play it Safe in Recreation Areas		Other Stakeholders	Repost and customize	Completed	
	-Travel Safe					
Realtor, Lender, Insurance Mailer	-Know Your Flood Hazard -Insure Your Property -Floodplain Regulations (some	Realtors, Lenders & Insurance Agents, Property Managers	Utilities	Prepare newsletter, mailing	Completed – sent to lenders, insurance agents, property managers	
OP#2 241 mailers sent in 2019 plus Board of Realtor email distribution	years) - Build Responsibly		Board of Realtors	mailing list, Review of newsletter	Completed	
Repetitive Loss Letter	-Know Your Flood Hazard -Insure Your Property -Protect Property from Hazard -Protect Natural Floodplain Functions -Flood Warning -Play it Safe in Recreation Areas -Urban Flooding -Travel Safe	Repetitive Loss Property	Utilities	1 time per year	Completed	

	-					
	Message I opics Were messages achieved? (Yes unless noted otherwise)	Audience Completed? less noted otherwise)	Stakeholder Support ALL or some?	Action	Completed/Not Completed and why	Recommended Changes
	-Know Your Flood Hazard -Insure Your Property -Protect People from Hazard	General	Utilities	Minimum 3 per year (Safety Fair, Earth Day)	2 in 2019	
	-Protect Property from Hazard -Build Responsibly -Protect Natural Floodblain		Red Cross	Minimum 3 per year, provide brochures	Not coordinated in 2019	
UT#14 - Wildiand Restoration Volunteers - Play it Safe in Re OP#15 - Red Cross - Urban Flooding - Urban Flooding - Travel Safe	Functions -Flood Warning -Play it Safe in Recreation Areas -Urban Flooding -Travel Safe		WRV	Five per year - CSU Natural Resources Days, 2 Farmers Markets, Sustainable Living Fair, Taste of Fort Collins, New West Fest	Complete	
			Natural Areas	Minimum 3 per year	Not completed	No Longer doing related to flood issues
COLUME Campus Housing Fair	Know Vour Flood Hazard	General	reivia I hilitiac	Provide prochures Booth with brochures	Completed	
	-know rour ricou nacaru -Insure Your Property -Protect People from Hazard	Certeral		and handouts	compresent	
OP#20	-Protect Property from Hazard -Flood Warning		CSU	Sponsors event		
-Urban Flooding -Travel Safe	ooding fe		FEMA	Provides brochures		
Community Presentations -Know You (Non-Tareet Audience) -Insure You	-Know Your Flood Hazard	General	Utilities	Minimum two per year	No requests in 2019	
	-Protect People from Hazard -Protect Property from Hazard -Build Responsibly		Red Cross	Preparedness Party – minimum 3 per year	Not coordinated in 2019	
OP#16 – Red Cross -Protect Ni OP#17 – Natural Areas Functions	-Protect Natural Floodplain Functions			Service Group- Community Presentations		
	-Flood Warning -Play it Safe in Recreation Areas			Minimum 3 per year		
-Urban Flooding -Travel Safe	ooding fie		Natural Areas	Guided walks, restoration projects, clean-up days –	Completed 5 +	
				Minimum 5 per year		
			Poudre Heritage Alliance	Poudre Pub Talks		New for 2020
Realtor, Lender, Insurance -Know You Agent Presentations -Insure You	-Know Your Flood Hazard -Insure Your Property	s, Lenders, Property ers & Insurance	Utilities	Minimum 3 per year	Not completed – no requests, lack of time to	Will try for 3 in 2020
-Protect Property -Urban Flooding	-Protect Property from the Hazard -Urban Flooding	Agents	Board of Realtors	Coordinate with Realtors, Lenders, Home Builders Assoc., Property	promote.	
				Managers and advertising		
Dump No Waste Inlet Markers - Protect P -Protect N Functions	- Protect Property from Hazard -Protect Natural Floodplain Functions	General	Utilities	Prepare map of locations, mark inlets	Completed	

OP#21	Education in Schools – Children's Water Festival		OP#10	Flood Awareness Week Displays – Poster and Brochures	City News – Utility Bill – July OP#8	City News – Utility Bill – May OP#7	Flood Protection Assistance and Site Visits	Disaster Preparedness Calendar OP#11	Projects Outcome achieved?	
-Protect Property from Hazard -Protect Natural Floodplain Functions -Flood Warning -Play it Safe in Recreation Areas -Urban Flooding -Travel Safe	-Know Your Flood Hazard -Protect People from Hazard	-Protect Natural Floodplain Functions -Flood Warning -Play it Safe in Recreation Areas -Urban Flooding -Travel Safe	-Protect Property from Hazard -Build Responsibly	-Know Your Flood Hazard -Insure Your Property -Protect People from Hazard	-Know Your Flood Hazard -Protect People from Hazard -Flood Warning -Travel Safe	-Know Your Flood Hazard -Insure Your Property -Protect People from Hazard -Protect Property from Hazard -Protect Natural Floodplain Functions -Flood Warning -Travel Safe	-Know Your Flood Hazard -Insure Your Property -Protect People from Hazard -Protect Property from Hazard -Build Responsibly -Urban Flooding	-Know Your Flood Hazard -Protect People from Hazard -Flood Warning -Travel Safe	Message Topics Were messages achieved? (Yes unless noted otherwise)	Tabl
	Poudre School District Students			General Non-English Speakers	General	General	General	General	Audience Completed? (Yes unless noted otherwise)	Fable 8: Proposed Floodplain Education Projec
Other Stakeholders – Dive Rescue, Poudre Fire Authority, USGS consultants, etc.	Utilities		Red Cross	Utilities FEMA	Utilities	Utilities	Utilities	Office of Emergency Management	Stakeholder Support ALL or some?	dplain Educa
Exhibits and booths on Flood Safety, erosion, stream table, wetlands and riparian habitat, water quality	Flood Safety Relay Race, Flood Probability Shower		Provide Brochures	Set-up displays Provide Brochures	Prepare newsletter article	Prepare newsletter article	Provide free site visits to residents and businesses. Advertise service in City News.	Prepare calendar, coordinate messages	Action	tion Projects
Completed	Completed		Completed	Completed Completed	Completed	Completed	No requests in 2019	Completed	Completed/Not Completed and why	
		one at the Azatlan Center. Obtain Spanish language version of FEMA brochures	More Spanish Language availability besides the	Update messages and poster for 2020.	Update Messages for 2020	Update Messages for 2020		Messages will be updated for 2021 calendar	Recommended Changes	

Projects Message Topics Outcome achieved? Were messages achieved? Outcome achieved? Were unless noted otherwise) Education in Schools – Earth -Know Your Flood Hazard Force RISE Program -Frotect Natural Floodplain Force RISE Program -Frotect Natural Floodplain Flood Warning -Fronce Natural Floodplain Functions -Flood Warning -Flood Warning -Flood Maring -Flood Marning -Frodent Natural Floodplain Functions -Flood Maring -Insure Your Flooding -Froetert Natural Floodplain Realtor Training/Continuing -Frood Marand -Travel Safe -Frood Hazard -Travel Safe -Frood Marand -Travel Safe -Frood Marand -Build Responsibly -Frood Marand -Build Responsibly -Frood Varing -Floodo	Audience Completed? (Yes unless noted otherwise) Poudre School District Students Bealtors Pronenty Managers	Stakeholder Support	Action	Completed/Not Completed	Recommended Changes
a farth antinuing an	Poudre School District Students Bealthore Pronenty Managere	Support			
atinuing trining tr	(Yes unless noted otherwise) Poudre School District Students Basitrore Pronenty Managere			and why	
s – Earth Atinuing	Poudre School District Students Basitrice Privativ Managers	ALL or some?			
in in in ite	Students Bestrore Proventy Managere	Earth Force	Rocky Mountain	Completed	
aining/Continuing letter	Restrict Managers		Environmental Challenge – now called RISE		
sining/Continuing letter	Restrict Manager				
sining/Continuing letter	Restrict Princetty Managere	FEMA	Program Support. Talk at	Completed	
aining/Continuing letter			Awards Ceremony		
aining/Continuing letter		Utilities	Provide support to	Completed – 2 talks in 2019	
sining/Continuing letter	+		teachers and students. Give presentations to	 Webber Middle School, Compass Charter School 	
etter	in open of managers'	Utilities	Offer training	Not completed – lack of	Trying for 2020
	etc.			time	
		Board of Realtors	Help secure CEC, make		
			כטוומכוז, מטיפוווצ		
		FEMA	Assist with training		
-Insure Your Property -Protect People from Hazard -Protect Property from Hazar -Flood Warning		csu	Campus- wide email	Completed in 2018, but not	Trying for 2020
-Protect People from Hazard -Protect Property from Hazard -Flood Warning Ith-to-proving	and Staff – 100% coverage		newsletter: Source	2019	
-Protect Property from Hazar -Flood Warning Lith-ho d Warning					
-Flood Warming	P				
-urban riooging -Travel Safe					
Messaging to Homeless -Know Your Flood Hazard	General	Social Sustainability	Individual contacts or	Completed in 2018. but not	
			through signage and	2019	
-Flood Warning	Vulnerable Population		other agencies - Churcher Murchy Conter		
Cold OB Coder Vision Vi	munitur.	197	Dronario OD Codo Sinor	Nam For 2020	
			and install around		
-Flood Warning	General		campus		
-Urban Flooding					
יומעבו טמוב					
Flood Walk App -Know Your Flood Hazard	General	Resilience Action	Develop App	New for 2020	
-Insure Your Property		Partners			
-Protect People from Hazard					
-protect Property from hazard -Build Responsibly		FEIWIA	runaing and Guidance		
-Protect Natural Floodplain		Utilities	Provide info, photos, etc.		
Functions					
-Flood Warning					
-Urban Flooding	200				
-Travel Safe					

	Table	Fable 8: Proposed Floodplain Education Projects	dplain Educa	tion Projects		
Projects Outcome achieved?	Message Topics Were messages achieved? (Yes unless noted otherwise)	Audience Completed? (Yes unless noted otherwise)	Stakeholder Support ALL or some?	Action	Completed/Not Completed and why	Recommended Changes
Poudre School District Bus	-Know Your Flood Hazard	Poudre School District	Poudre School Dist.	Incorporate flood safety	New for 2020	
Drivers Training	-Protect People from Hazard -Flood Warning -Travel Safe	Community - Staff		messaging into bus driver training		
Advertising Before Events – Garden's Concerts, Downtown Concerts, Museum of	-Know Your Flood Hazard -Protect People from Hazard -Flood Warning	General	Utilities	Contact organizations to determine options.	New for 2020	
Discovery, Movie Theaters, etc.	-Urban Flooding -Travel Safe			Prepare Graphics and messaging		
Climate-Wise Flood Friendly Businesses	-Know Your Flood Hazard -Insure Your Property -Protect People from Hazard -Protect Property from Hazard -Build Responsibly -Urban Flooding -Travel Safe	General	Utilities	Contact Climate-Wise staff to brainstorm ideas.	New for 2020	
Neighbor to Neighbor Home Buying Course – Add flood information	-Know Your Flood Hazard -Insure Your Property -Protect People from Hazard -Protect Property from Hazard -Build Responsibly -Urban Flooding	General	Utilities	Contact Neighbor to Neighbor. Provide floodplain brochure and any graphics and messages for training	New for 2020	

FLOODWALK

Flood Mitigation AR Experience

New projects for 2020

See **Table 8** for a complete list of proposed projects that are new for 2020.

CSU QR Codes

CSU plans to place QR codes around campus to share flood awareness information. This could include flood history, flood safety and explaining the importance of flood mitigation on the CSU campus. This project will be specifically targeted to the CSU Community.

Flood Walk App

Flood Resilience Action Partners and FEMA are teaming up with the City of Fort Collins to create the second location of this interactive mobile app. Areas around town will be highlighted to explain flood risk, safety, and the City's stormwater and floodplain management programs. AR visualization, videos and gamification will be used to capture the audience's attention. The committee's messages will also be integrated into the app. Work is beginning in 2020 and expected to be completed in 2021.

Poudre School District Bus Driver Training

Poudre School District plans to incorporate flood safety messaging into their training for bus drivers. This will promote the concept of Turn Around, Don't Drown.

Advertising Before Events

The City will explore the idea of placing flood awareness messaging at events. This might include showing messaging and videos on the screen before the start of a concert or while waiting for a movie. Locations that were discussed by the committee include: Concerts at the Gardens on Spring Creek, Downtown Concerts, Museum of Discovery dome shows, movie theatres, etc.

Climate-Wise Flood Friendly Businesses

The idea was to promote flood awareness among the business community and then share that knowledge with the public. This might include signage about how a business has elevated or floodproofed their structure to protect from flooding or the importance of flood insurance. This could be tied into the already established Climate-Wise Program.

Neighbor to Neighbor Home Buying Course

One committee member mentioned they had recently taken this home buying course and there had been no discussion of checking to see if a property was in the floodplain or any information about flood insurance. City staff will reach out to Neighbor to Neighbor and offer to share some information for future classes.

Chapter 6: Flood Response Public Information

Fort Collins Utilities has an extensive preparation plan for flooding events. Stormwater staff has identified threshold levels for varying incidents and there are different communication actions for each level. Public outreach is an integral part of all levels of a flooding or potential flooding situation, including before and after the event. Communications staff at Utilities has prepared tools and materials to initiate communication quickly depending on the need identified by the nature of the event.

Communication efforts include pre-warning outreach to the community with reminders of safety, general flood awareness and education. Specific messaging has been identified for each threshold of a flooding situation. The Fort Collins Utilities Public Information team has broken down those steps further to identify necessary actions, communication efforts, tasks and roles depending on the emergency level.

Incident threshold levels

Fort Collins Utilities Stormwater staff has created three levels for on-call response to an identified flooding incident. The Public Information Team has taken this once step further and integrated "pre-incident" communications as part of the on-call process. This allows for continuous communication on general flood awareness, education, preparedness and appropriate behavior with the hope that the public will be more aware and "prepped" when an incident occurs.

Pre-Incident Communication

- On-call stormwater staff member assesses weather and potential risk for the week
- Communicates directly with PIO staff to update on anticipated concerns for the week on Monday morning
- Discuss general messaging to focus on during pre-communication efforts (are there certain areas of town to focus on, potential events anticipated, certain behaviors that need to be encourage/discouraged more than others, general safety/awareness reminders)

Incident threshold levels (continued)

Low Threshold

Stormwater on-call staff is monitoring weather development and potential for flooding.

Topics

Focus on safety and awareness. Define watch vs warning.

- Turn around, don't drown
- Know the difference between a Watch and a Warning
- Get real-time rainfall and streamflow data
- Don't risk driving through floodwaters
- It's better to be late then wet
- Move valuables to higher areas of home or business if time allows
- Businesses secure floatable materials
- Areas of town impacted

Medium Threshold

Stormwater on-call staff is monitoring and preparing for a flooding situation, possibly activating the incident command structure.

Topics

Focus on LETA 911 sign-up, not driving in floodwaters, where to monitor conditions and where to go for updates.

- Do not call 911 for non-emergency questions
- Flood updates available at (specific website for event)
- Engage on Facebook and Twitter for updates and current information
- Do not drive through floodwaters even if it is your only route home
- Do not play or recreate in floodwaters
- Six inches of floodwater can move a vehicle
- Stay away from detention ponds, irrigation ditches and drainage pipes
- Real-time streamflow and rainfall data
- Areas of town impacted

Incident threshold levels (continued)

High Threshold

Incident command structure has been implemented. May utilize LETA911 and communicate with critical facilities, residents and businesses.

Topics

- Flooding is occurring here: _____
- Evacuation centers
- Community resources
- United Way 211
- Flood specific website
- Social media updates
- Road and bridge closure information
- Evacuation options for pets
- Do not drive through floodwaters
- Do not play or recreate in floodwaters
- Six inches of floodwater can move a vehicle
- Stay away from detention ponds, irrigation ditches and drainage pipes
- Real-time streamflow and rainfall data
- Non-emergency contact information for Fort Collins Police Services and Poudre Fire Authority

Flood Response Projects

During and after a flood, Utilities will implement specific flood response projects as indicated in **Table 9**.

	Flood	Response Projects		
Projects	Message Topics	Audience	Stakeholder Support	Action
Website	 Know Your Flood Hazard Protect People from Hazard Protect Property from Hazard Insure Your Property Build Responsibly Floodplain Regulations Flood warning Basement Flooding Drive Safe 	 General Residents and owners in 100-year floodplain Flooded homes and businesses Building design professionals 	 Utilities FEMA Red Cross 	 During and after a flood: Post information on City website and provide links to additional FEMA and Red Cross resources.
Brochure Displays	 Know Your Flood Hazard Protect People from Hazard Protect Property from Hazard Insure Your Property Build Responsibly Floodplain Regulations 	 General Flooded homes and businesses Building design professionals 	UtilitiesRed CrossFEMA	 After a flood: Set up displays at locations around town with brochures for the public, including FEMA and Red Cross brochures.
Social Media	 Know Your Flood Hazard Protect People from Hazard Protect Property from Hazard Insure Your Property Build Responsibly Floodplain Regulations Flood warning Basement Flooding Drive Safe 	 General Residents and owners in 100-year floodplain Flooded homes and businesses Building design professionals 	• Utilities	 During and after a flood: Send social media messages via Facebook/Twitter

Flood Response Projects

Web pages

Utilities has created webpage templates that can be activated in the event of a flooding emergency. These pages include resources, links and materials that will be of assistance to the public during and after a flooding event.

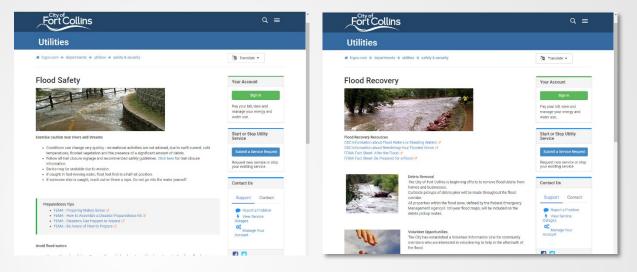


FIGURE 23 - UTILITIES' FLOOD SAFETY AND RECOVERY WEB PAGES

Brochures

The following brochures and documents are available for distribution after a flood:

- City of Fort Collins Substantial Damage Policy
- After a Flood: The First Steps
- Cleaning up your Flood Damaged Home
- Increased Cost of Compliance: How you can Benefit
- Returning Home After a Hurricane or Flood
- Repairing your Flooded Home

Social Media

Social media will need to provide information during and after a flood. Posts on Twitter and Facebook will direct readers to the City's website for more detailed information.

Chapter 7: Program Adoption and Evaluation

Approval of Report

The Community Rating System requires approval of this document so that it has formal, official status within the community. In Fort Collins, this approval will be by the Utilities Executive Director and does not require City Council approval based on how the Stormwater Utility is organized and funded. Fort Collins Utilities is composed of the enterprise funds for our four utilities: Stormwater, Water, Wastewater and Light and Power. Each of the individual utilities has a dedicated funding source and does not rely on the City of Fort Collins General Fund.

The Fort Collins Stormwater Utility has been in place since 1980 and all funds come from Stormwater fees. The Utilities Executive Director is responsible for overall management of Fort Collins Utilities. The Director has the administrative power to authorize projects, such as those outlined in the Program for Public Information (PPI) report, that are not of a Citywide policy nature or do not require additional funding.

Funding for public education related to flooding is an ongoing program and already is included in the Stormwater Utility budget, so no additional funds will be requested from City Council. The PPI report is an enhancement of our existing education efforts and would not be considered a policy change requiring City Council approval. The Utilities Executive Director has full authority to approve the PPI report. A copy of the PPI report will be sent to City Council as an informational consent item.

Formal approval of the report can be found in Appendix 2.

Documentation of Projects

Each of the Stakeholders will send documentation of their annual activities to Fort Collins Utilities for submission to the CRS for the City's annual recertification. This documentation will include copies of advertisements, flyers, newsletters, mailers, event photos, etc. This information also will be included as part of the annual review by the Committee.

Annual Review and Evaluation

The Committee will meet in the first quarter of each year to review and evaluate the projects and messaging from the past year and to plan projects for the upcoming flood season. The committee will discuss if the desired outcomes were achieved. If any significant flooding occurred during the year, the Flood Event Public Information plan discussed in <u>Chapter 6: Flood</u> <u>Response Public Information</u>, also will be reviewed. An annual report based on the Committee's review and recommendations will be prepared and forwarded to the Utilities Executive Director and City Council. This annual report will then be sent to CRS as part of the annual recertification process.

The annual report will include:

- The target audiences, messages and desired outcomes
- The projects used to convey the messages
- Which projects were implemented
- Why some projects were not implemented (if any)
- What progress was made toward the desired outcomes
- What should be changed (including what messages, outcomes and projects should be revised or dropped, and what new ones should be initiated)

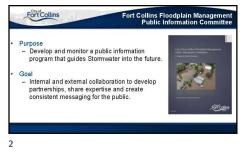
Appendix

APPENDIX 1 – MEETING PRESENTATIONS

Meeting 1

2/26/2020







Day 1	Day 2	Day 3
 Overview Utilities Public Engagement Strategy Target area and audience review and development 	 Review community message topics Agree on "extra" message topics Message review and development 	 Finish message development Review existing and develop new projects Discuss results quantification (bonus item)







2/26/2020



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	INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
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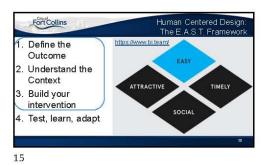
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Meeting 1





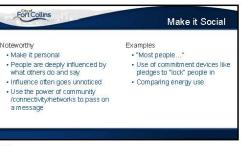
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FortCollins	Make it Easy
Noteworthy • People gravitate towards what takes the least time and resources. • By making it easier, we increase likelihood of completion	Examples • Display key message early • Simple language • Simple, achievable messages • Simple, specific steps • Reduced "hassle factor" and "friction costs"
	15

16





2/26/2020



FortCollins	Breakthrough Thinking Activity
How to generate LOTS of ideas:	Forced Connections
 Defer Judgement Strive for Quantity Seek Wild and Unusual Ideas Combine and Build 	Activity: Write it, Say it, Stick it!
on Other Ideas	20

20





21





2/26/2020





Five real	r Review Agenda
Day 2	Day 3
 Wrap areas and audiences 	 Wrap message development
 Review community message topics 	 Develop projects to disseminate
 Agree on "extra" topics 	messages
Message review	 Project Prioritization
	Day 2 Wrap areas and audiences Review community message topics Agree on "extra" topics

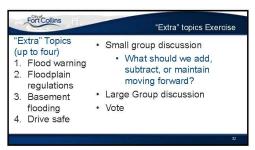




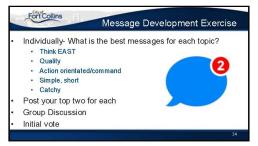


2/26/2020













2/26/2020













2/26/2020





Project Sharing





46



 Control
 Next Steps

 Next meeting
 Group photo!
 Start should annual meeting look like?
 Start final docs from each activity

 When should it be?
 Share final docs from each activity
 Share report when it is ready

2/26/2020



49





Our Learning Environment: Open to questions Safe Space Stay focused on goal

 Explore new ideas Honor previous work

- Stay out of the weeds



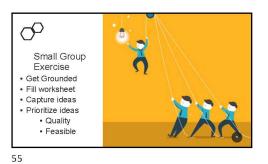
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53



2/26/2020



Share your top three
 Observe the set of projects
 What new or potential projects do we want to take on in 2020?

56



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City of Fort Collins Floodplain Management Program for Public Information

REPORT APPROVAL

The City of Fort Collins is highly committed to providing a proactive floodplain information and management preparedness program. An important component of floodplain management is public information and preparedness. Early this year, Fort Collins Utilities in cooperation with internal and external stakeholders reviewed and revised the Program for Public Information (PPI) that was developed in 2014. The goal of the committee was to bring outside stakeholders together with the City to develop partnerships, provide additional expertise and perspectives and create consistent messaging for the public.

The result of the Committee's work is the attached report that reviews the community's needs, existing public information efforts and outlines future messaging and outreach projects. The report provides a guide for the continued collaboration among stakeholders as they work to implement future public outreach efforts. The efforts outlined in the Program for Public Information will have a long-term impact on the resiliency of the Fort Collins community to the impacts of flooding.

Fort Collins Utilities is committed to providing proactive messaging to help reduce the loss of life and minimize the damage to structures. The projects outlined in the report are funded through the City of Fort Collins Stormwater Utility. Funding for public education is an ongoing program and is already included in the Stormwater Utility budget. Therefore, no additional funds will be sought from City Council. The PPI is considered an enhancement of our existing education efforts.

I, Kevin Gertig, approve this report, *City of Fort Collins Floodplain Management Public Information Committee: A program for Public Information, April 2020.*

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April 17, 2020

Kevin Gertig Utilities Executive Director

Date