



Board Study Session Memo

To: Board of Directors
From: Lanae Raymond and Stacey Thompson, Environmental Resources Division, Floodplain program
Date: July 17, 2014
Re: FEMA's Physical Map Revision Process for 2014 in SEMSWA Service Area
Board Meeting Date: July 23, 2014

.....

Topic

This Study Session will provide the Board with an understanding of the outreach efforts required for the Federal Emergency Management Agency's (FEMA) Physical Map Revision (PMR) process for six watersheds in the SEMSWA Service Area, which include Willow Creek, Cottonwood Creek and Tributaries, Piney Creek, Antelope Creek, East Toll Gate Creek, and First Creek. Preliminary mapping will be rolled out by FEMA and the Urban Drainage and Flood Control District (UDFCD) in late summer/early fall that will revise flood risk areas and floodplain limits. SEMSWA and the County will be providing focused outreach to affected property owners in each watershed so that they are informed of the map changes and made aware of their flood risk.

Background

Property owners in six watersheds in the City and the County will have the opportunity to see the Preliminary mapping from FEMA during the initial rollout of FEMA's PMR effort for 2014. The new mapping effort is part of FEMA's commitment to provide communities more timely mapping of the flood risk. New data has been provided by the UDFCD through its flood hazard area delineation program. The "Flood Hazard Area Delineation" studies, or FHADs, identify and publish 100-year floodplains, and specify where flood risks have changed since any previous mapping. The FHAD data is used to update the regulatory FEMA maps for these watersheds. The last FEMA mapping effort was the update to Digital Flood Insurance Rate Maps (DFIRMs) in 2010 completed as part of the FEMA Map Modernization (MapMod) Program.

Discussion

SEMSWA will be holding public meetings during September to present the Preliminary mapping. This will be an opportunity for owners to see their property in relation to the new floodplain delineations. The one-year anniversary of the major flooding that impacted neighboring communities is an excellent opportunity to focus efforts on mitigating flood risks. Estimates from several sources after the September 2013 floods indicated over 25,000 homes had been damaged and another 1,800 destroyed. Much of the damage was experienced by property owners located outside of the FEMA mapped special flood hazard areas/high-risk zone (100-year floodplains). Since then, a new emphasis has been placed on identifying as much of the risk as practicable, and this new FEMA mapping provides an opportunity for all property owners to participate in risk mitigation efforts.

Although the Preliminary mapping will not become effective for approximately 18 months, SEMSWA feels it is important for City and County residents and business owners to be aware of the map changes as early in the process as possible. If their property is at an increased risk from flooding based on the FHAD studies, it is an opportune time to investigate flood insurance options before the mapping becomes effective, and take advantage of the lower-cost Preferred Risk Policy (PRP) offered by the National Flood Insurance

Program (NFIP). For property owners who will be newly mapped into a high risk zone, flood insurance may become mandatory if they have a federally-backed mortgage. However, for the majority of property owners with low to moderate risk, they should also be encouraged to consider flood insurance, which would financially protect themselves from future flooding, as flood risks can and do change.

At the public meetings, SEMSWA will also present what we are doing as a stormwater management agency to mitigate risk to homes, businesses and other structures located in and near a flood hazard area. Some of the strategies SEMSWA employs to mitigate flood risk includes master planning to identify and prioritize capital projects; the construction of those capital projects with available and leveraged funds; maintaining the existing infrastructure to optimize conveyance of storm flows; regulating new development and redevelopment with protective floodplain criteria; and implementing stormwater and floodplain management policies that lower the cost of insurance (the Community Rating System (CRS) program). Agency partnering with a homeowner or business owner to mitigate risks is an effective way to manage our major storm events, and the September meetings will feature breakout stations with staff from FEMA; the Colorado Water Conservation Board (CWCB), the state's floodplain agency; and UDFCD, our regional flood control agency. After a short overview presentation, SEMSWA staff and agency representatives hopes to engage property owners at the different breakout stations to fully explore the mapping update and impacts.

Next Steps

SEMSWA will send an informational letter to affected property owners, and will include a map of the new floodplain limits that identify areas of increased risk. The letter will provide an invitation for the September meetings where the property owners can receive information, view maps, and ask questions of SEMSWA, Arapahoe County, UDFCD, FEMA, and CWCB. In addition, a website will be established to provide additional public engagement.

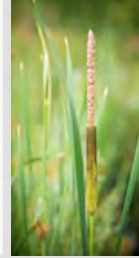
At this point in time, the meetings for the Centennial watersheds will be held at the SEMSWA office, which is centrally located to the watersheds involved in the new mapping. The Arapahoe County Fairgrounds and Regional Park is anticipated to be the site for the County's public meeting, ideally located near the area of the affected watersheds.

We expect FEMA and UDFCD to issue the Preliminary maps and Flood Insurance Study (FIS) data in September and to hold the community coordination meeting. The statutory 90-day appeal period will begin after legal notice in the Federal Register. During this time, FEMA will be accepting comments and appeals from property owners, community officials and citizens. Appeals do have to be based on technical and scientific data. In approximately 18 months, the new maps will become effective and will be the official regulatory flood hazard mapping to manage development activities in these watersheds. The 18-month period includes the appeal period, FEMA's review and timeframe to resolve appeals, and the 6-month community compliance period. During the 6-month community compliance period, we will need to update the Land Development Code to reference the new FIS, FIRMs and effective date.

NEW FEMA MAPPING

Rollout of the 2014 Physical Map Revision (PMR) Process

The Floodplain Program ensures that SEMSWA complies with and influences Federal, State, Regional, Local, and SEMSWA requirements for floodplain preservation, protection and enhancement



JULY 23,
2014

WHAT is a PMR?

FEMA defines a Physical Map Revision (PMR) process as where one or more Flood Insurance Rate Map (FIRM) panels are physically revised and republished.

A PMR is used to change flood risk zones, floodplain and/or floodway delineations, and flood elevations

WHO is involved in our mapping update?

- **FEMA:** the Federal Emergency Management Agency will issue new maps as part of their PMR process
- **Urban Drainage:** the regional agency identifies 100-year floodplains and publishes the flood risk data through it's Flood Hazard Area Delineation (FHADs) studies, and is the Cooperating Technical Partner (CTP) for FEMA, ensuring consistency between local FHADs and FEMA mapping. UDFCD will submit FHADs annually to FEMA for updates through the PMR process
- **SEMSWA:** the local floodplain management entity enforces floodplain regulations in the City, provides technical support and outreach efforts for the County, and requests updated flood hazard data and 100-year floodplain mapping from UDFCD for the Service Area
- **Michael Baker, Inc.:** FEMA's contractor for our region's PMR process, and SEMSWA's on-call consultant for the PMR outreach effort on behalf of City and County

SIX WATERSHEDS WILL HAVE NEW FLOODPLAIN MAPPING IN 2014

Arapahoe County:

- First Creek
- East Toll Gate Creek

Centennial:

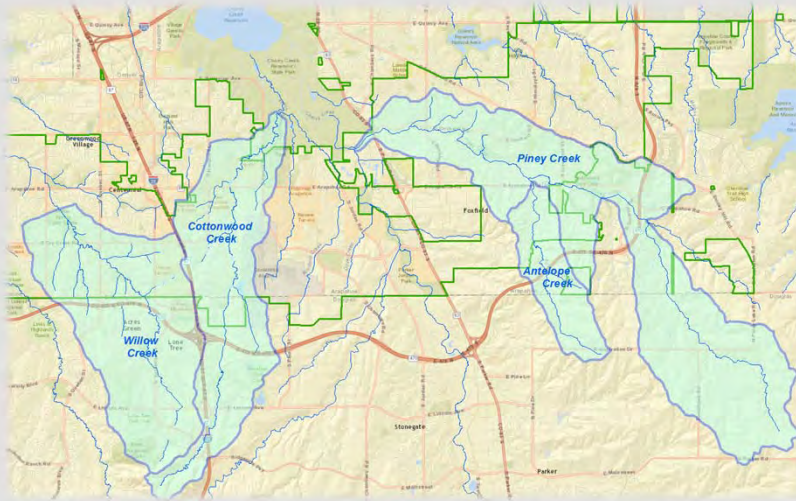
- Willow Creek
- Antelope Creek

Arapahoe County and Centennial:

- Cottonwood Creek
 - Havana Tributary A
 - Peoria Tributary B
 - Inverness Tributary C
- Piney Creek



Watersheds, continued



WHY new mapping now?

- FEMA is committed to providing local floodplain agencies with *more timely* flood map revisions when new data is available, to *better identify* flood hazard areas & flood risk zones, so that SEMSWA can effectively **communicate flood risks** to affected property owners, and the owner can procure flood insurance
- **Last mapping effort** was the Digital Flood Insurance Rate Maps (DFIRMs) that became effective in 2010 after a 5-year process, and was completed through the FEMA Map Modernization (MapMod) program
- UDFCD submitted six FHAD studies (in 2012) to FEMA for the 2014 PMR process; five of these FHADs are within the SEMSWA Service Area. UDFCD submitted six more FHADs (in 2013) within SEMSWA for the next PMR process that we anticipate in 2015. As additional FHADs are completed and approved, UDFCD will be submit them annually for the PMR process.

NEW MAPPING to include:

- **Updated flood risk data** resulting from UDFCD FHAD studies completed and approved since the 2010 DFIRM update
- A **comprehensive review** of FHAD modeling data, performed by FEMA contractor Michael Baker, Inc., to ensure the FHAD studies meet FEMA requirements
 - For example, the spill area identified along Piney Creek was reviewed in detail to verify the Piney Creek FHAD modeling and mapping completed in 2011 provides the best representation of what is actually happening

SEMSWA'S ROLE in PMR process

- Inform Property Owners of *flood risk*
 - The risk may be **existing**, e.g. parcel *already within floodplain* per the current DFIRM, or can be an **increased level** of risk, e.g. *newly 'in' floodplain* based on new FHAD data
 - Some properties will have a **perceived decreased** level of risk, e.g. parcel *newly 'out' of the floodplain*, but this will not be overly emphasized during outreach, as flood risk still exists (2013 flood)
- Outreach and engagement via several pathways:
 - **Informational Letter** to all residents in vicinity of the creek
 - **2 Public Meetings**: Piney & Antelope; and Willow & Cottonwood
 - **PMR Website**: in development
- The Informational Letter will contain information about the PMR process, a Public Meeting invitation, and a map with floodplain limits if property is affected by the new map changes.
- Two Public Meetings to be held in September at SEMSWA offices, and one at the County Fairgrounds and Regional Park



TIMING of PMR roll out

- Review of FHAD data being performed by Michael Baker, Inc. - Ongoing
- New mapping incorporating the FHAD data to be completed by September and issued by FEMA as **Preliminary Flood Hazard** data
- FEMA and/or UDFCD to host a **community coordination meeting** to present Preliminary DFIRMs resulting from PMR, and the Flood Insurance Study data
- SEMSWA to hold Public Meetings in September to introduce new mapping and **engage property owners** (tie into anniversary of 2013 flooding)
- The statutory 90-day appeal period begins after legal notice in the Federal Register. During this time, **FEMA requests comments** from affected property owners, community officials and citizens
- In approximately 18 months, new mapping becomes *Effective* and will be the **official regulatory flood hazard mapping** to manage development activity in these floodplains. This 18-month period includes FEMA's review of comments and appeals, time-frame to resolve appeals, and a 6-month community compliance period.



WHAT preliminary new mapping is indicating in Centennial Watersheds*

*County will also be analyzing their data from Michael Baker

Willow Creek : (10 total properties in 100-yr floodplain)

8 (100-yr) and 4 (500-yr) properties with **increased risk** identified as part of PMR
 2 (100-yr) properties with same risk identified in existing DFIRM (no change)
 1 (500-yr) property has decreased risk (now out of mapped risk zones)

Cottonwood Creek and tributaries*: (1 total property in 100-yr floodplain)

1 (100-yr) and 7 (500-yr) properties with **increased risk** identified as part of PMR
 1 (500-yr) property with same risk identified in existing DFIRM (no change)
 5 (500-yr) properties have decreased risk (now out of mapped risk zones)

*no previous mapping for tributaries, but approved FHAD data since 2011

Piney Creek (30 total properties in 100-yr floodplain)

5 (100-yr) and 107 (500-yr) properties with **increased risk** identified as part of PMR
 25 (100-yr) and 78 (500-yr) properties with same risk identified in existing DFIRM (no change)
 7 (100-yr) and 144 (500-yr) properties have decreased risk (now out of mapped risk zones)

Antelope Creek* (13 total properties in 100-yr floodplain)

9 (100-yr) and 4 (500-yr) properties with **increased risk** identified as part of PMR
 4 (100-yr) properties with same risk identified in existing DFIRM (no change)
 1 (500-yr) property has decreased risk (now out of mapped risk zones)

*no previous FEMA mapping, but approved FHAD data since 2011



PUBLIC MEETING OPPORTUNITY

- ✓ Present the new preliminary mapping and change in flood risk to affected property owners **in advance** of it becoming effective, allowing concerns or questions to be voiced.
- ✓ Highlight **what SEMSWA is doing** to mitigate flood risks: stream conveyance projects, infrastructure maintenance, floodplain regulations, adherence to NFIP and State minimums, and CRS program participation.
- ✓ Introduce or reinforce the opportunity, as a homeowner or business owner, to **purchase flood insurance** to financially protect personal belongings and property, even in low risk areas. Flood risks can, and do change. Flood insurance is available to *everyone* in the community.
- ✓ Encourage insurance purchase **in advance** for those property owners newly mapped into a high risk zone. The NFIP offers a lower-cost referred Risk Policy (PRP) rate to ease transition into mandatory purchase of flood insurance.
- ✓ Offer to provide **Elevation Certificate assistance** for parcels indicating a mapping change to a high risk zone, so that either an accurate flood insurance rating can be obtained, or if feasible, support a Letter of Map Amendment (LOMA) application to FEMA to remove the structure from the flood hazard area, which if approved, would remove mandatory flood insurance requirement.

QUESTIONS



Contact Info:
Stacey Thompson, CFM, Floodplain Manager
sthompson@semswa.org