



FORT WORTH
FLOODED

Floodplain Management Plan

CITY OF FORT WORTH
Public Meeting #2

F FREESE NICHOLS

September 28, 2015

HELLO
MY NAME IS

Clair Davis
Floodplain Administrator

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Agenda

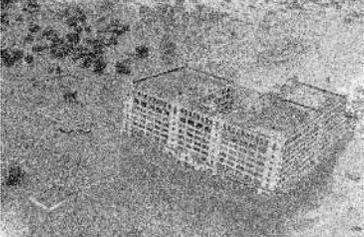
1. Project Timeline
2. Fort Worth Higher Standards (NFIP & CRS)
3. Floodplain Management Plan Overview and Results
4. Next Steps



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FROM HARMFUL STORMWATER RUNOFF



Project Timeline







Schedule of FMP

Floodplain Management Plan Tasks	Month					
	May	Jun	Jul	Aug	Sep	Oct
Committee Organization and Data Collection	★ ●					
Hazard Assessment			★			
Mitigation Strategy and Action Plan						
Draft FMP					●	
Adoption					★	

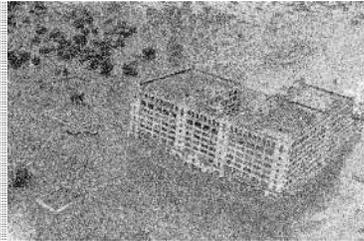
★ Committee Meeting
 ● Public Meeting



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Fort Worth Higher Floodplain Standards (NFIP & CRS)



National Flood Insurance Program

- Founded in 1968 to provide two main functions
 - Providing insurance for property owners
 - Guide communities in adopting and enforcing floodplain management regulations
- Average policy premium in 2012 was **\$650 per year**
- Paid out more than **\$7.7 billion** in 2012
- **Fort Worth joined NFIP in 1980**

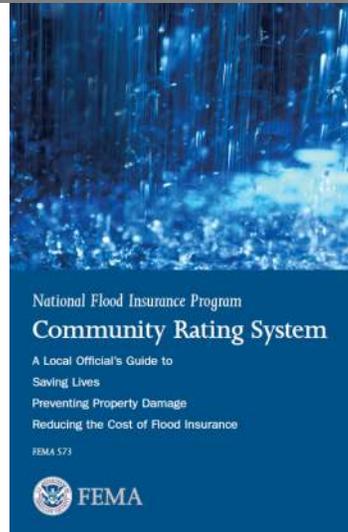


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Community Rating System (CRS)

- Voluntary incentivized program that involved communities earning points toward higher CRS Classifications and, in turn, policy holders can receive reductions in their premiums
- **Fort Worth began participating in 2012**

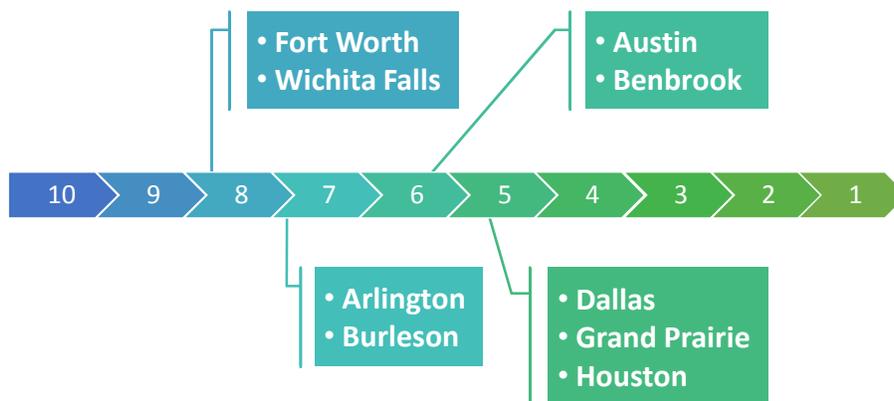


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NFIP Community Rating System

- Communities complete creditable activities to reach a higher classification



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Fort Worth Stormwater Utility

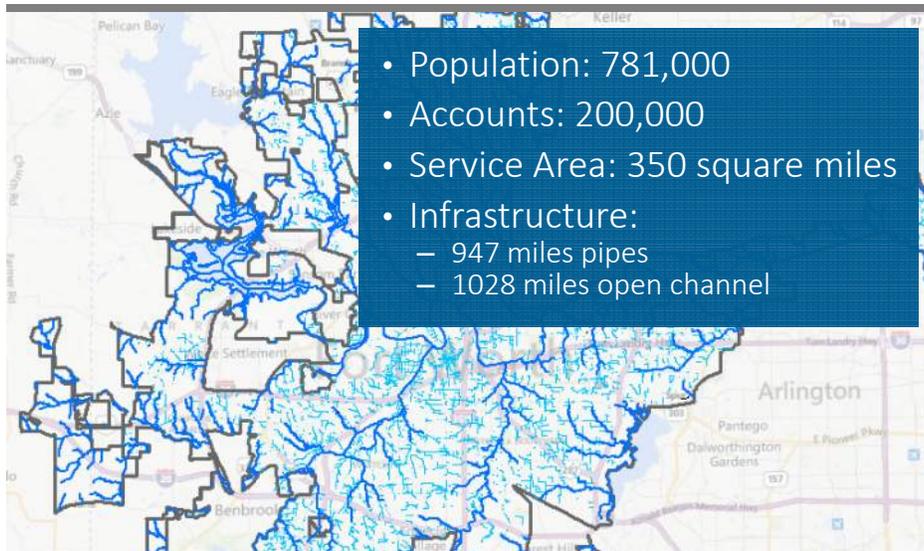
- 2006: Stormwater Utility created
- Monthly stormwater utility fee
- Annual Operating Budget: **\$37 million**
- Over **\$1 billion** in stormwater needs



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Stormwater Utility Facts



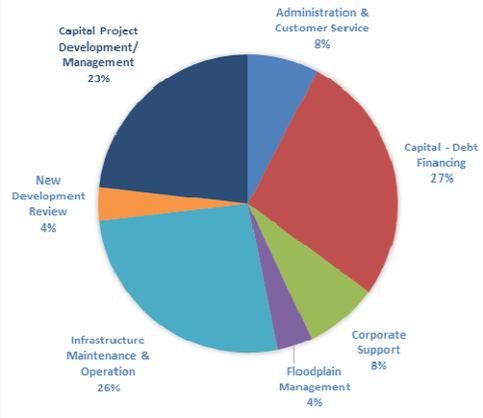
- Population: 781,000
- Accounts: 200,000
- Service Area: 350 square miles
- Infrastructure:
 - 947 miles pipes
 - 1028 miles open channel



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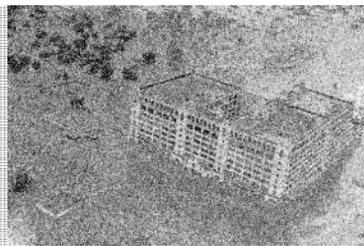
Fort Worth Stormwater Utility



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Floodplain Management Plan



Step 1: Organize

- Stakeholder Planning Group to Guide Plan Development
 - Public & City Representatives

- **Planning Meetings (3):**
 - Introduction to FMP
 - Hazard Assessment & Mitigation Activities
 - Draft Plan



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Step 2: Public Involvement

- 2 Public Meetings
- “Runoff Rundown”
- Social Media 
- MySidewalk – Survey Tool

<https://mysidewalk.com/sidewalks/3128/fort-worth-tx>



<http://fortworthtexas.gov/stormwater/floodplain>



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Public Input to Date

- 26 attendees at first public meeting
- 80+ responses to MySidewalk Survey Questions



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How can you help?

- Comment on the plan
- Tell us what is important to you
- Participation at committee meetings
- Your comments informed the actions (e.g. enhance sandbag program)

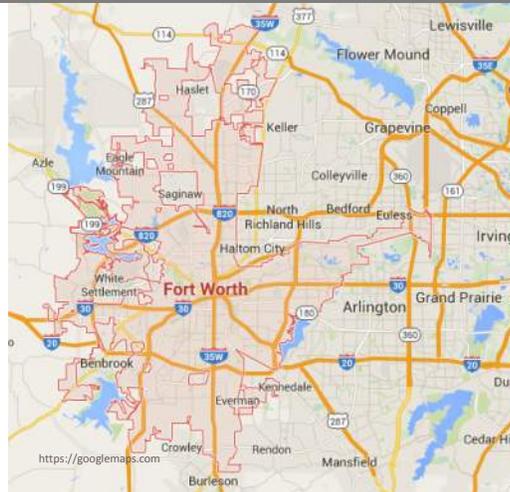


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Step 3: Coordinate with Other Agencies

- Review of existing studies and plans
- Coordinating with communities and other agencies
 - USGS
 - TRWD
 - USACE
 - NWS

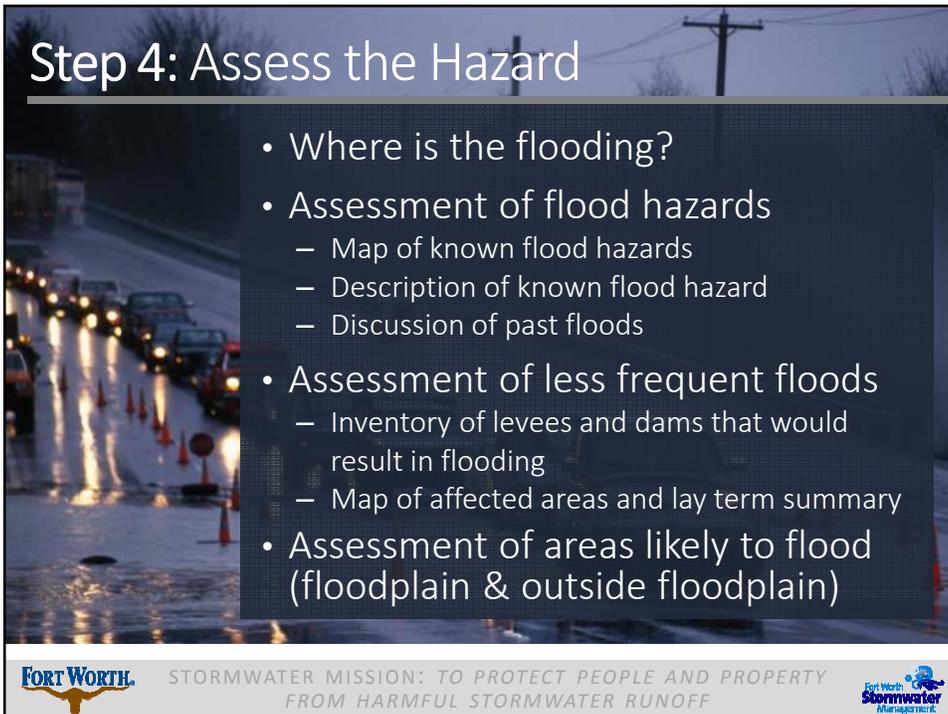


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Step 4: Assess the Hazard

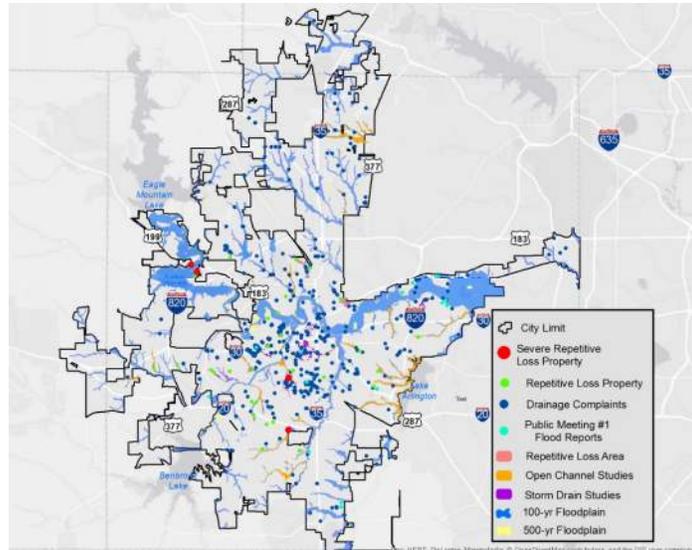
- Where is the flooding?
- Assessment of flood hazards
 - Map of known flood hazards
 - Description of known flood hazard
 - Discussion of past floods
- Assessment of less frequent floods
 - Inventory of levees and dams that would result in flooding
 - Map of affected areas and lay term summary
- Assessment of areas likely to flood (floodplain & outside floodplain)



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Hazard Assessment



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Step 5: Assess the Problem

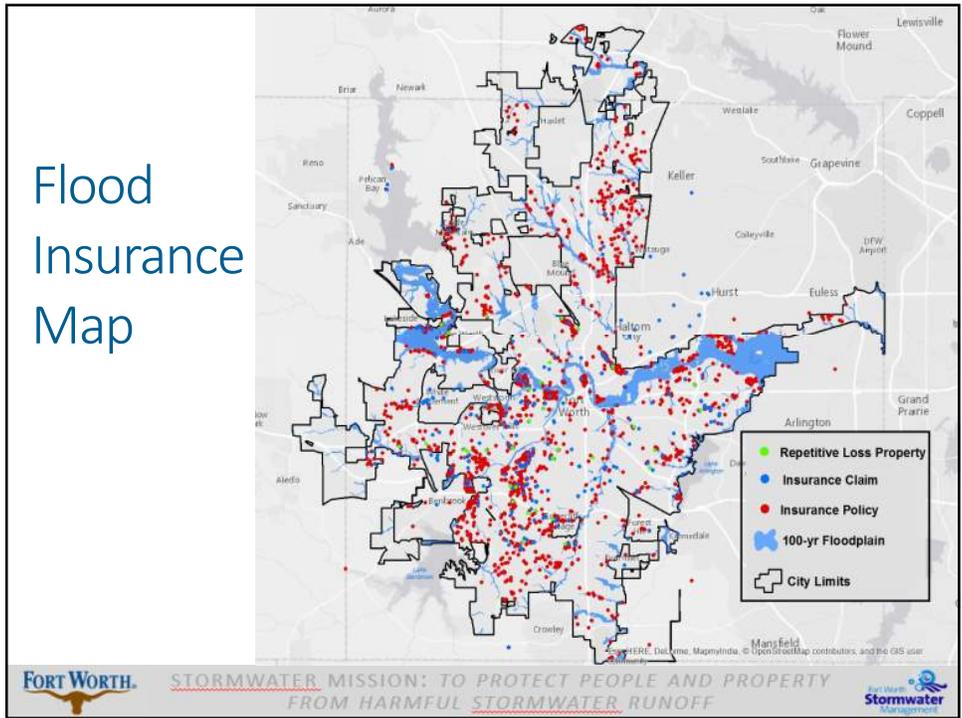
- We know where the hazard is, but what is the impact?
- Description of the impact of the hazards on:
 - Life, safety, health, procedures for warning and evacuation
 - Public health including health hazards to floodwaters and mold
 - Critical facilities and infrastructure
 - The community's economy and tax base
 - Number and type of affected buildings
- Review of all damaged buildings/flood insurance claims
 - All addresses of properties that have received flood insurance claims, even single occurrences



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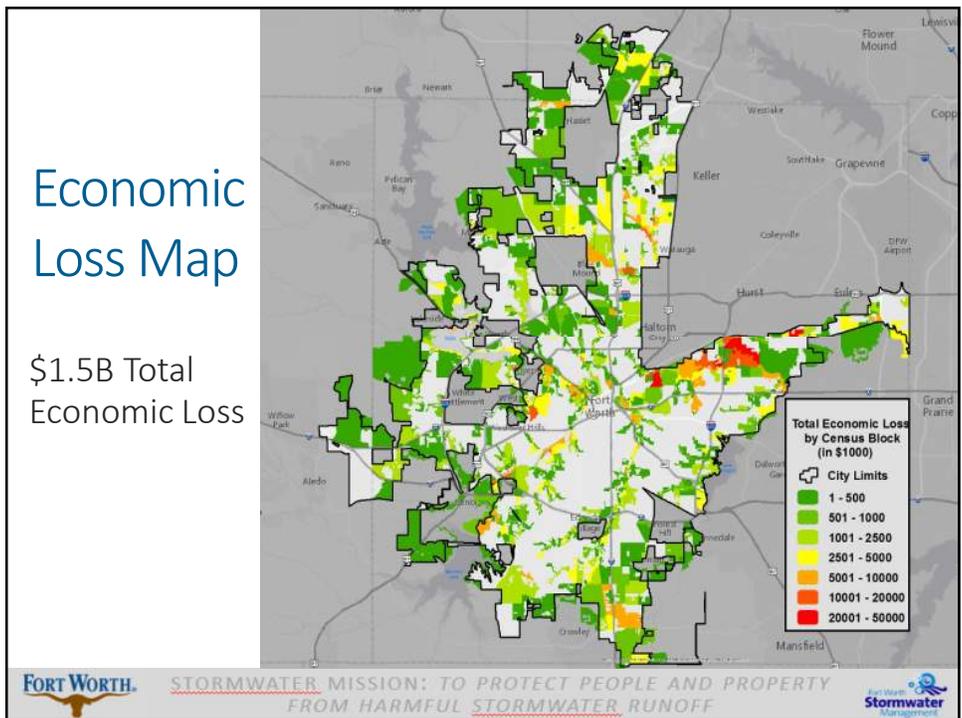


Flood Insurance Map



Economic Loss Map

\$1.5B Total Economic Loss



The Insurance & Risk Gap

- Not every structure in the FEMA floodplain, and not every structure at risk has flood insurance
- Estimate of 5,700 structures in the FEMA floodplain:
 - 4,600 residential; 1,100 non-residential
 - Approximately 26,382 residents at risk of being displaced
- \$695M in uninsured residential risk
- \$455M in uninsured non-residential risk
- No estimate of risk outside the FEMA floodplain



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Step 6: FMP Goals

1. Protect the health and safety of the public
(links to City goal 1, 5)
2. Facilitate sustainable growth
(links to City goals 4, 5)
3. Educate the public about flood risk mitigation and safety in Fort Worth *(links to City goal 1)*
4. Reduce the adverse effects of flood events
(links to City goal 1, 2, 3, 4, 5)
5. Develop mitigation actions for regional solutions and regulatory issues *(links to City goal 5)*



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Step 7: Review Possible Activities

- Preventive activities (zoning, floodplain regulations, building codes, subdivision ordinances)
- Regulatory standard sufficient for current and future conditions
- Natural floodplain function protection activities
- Property protection and mitigation activities
- Emergency service activities
- Structural projects
- Public information activities

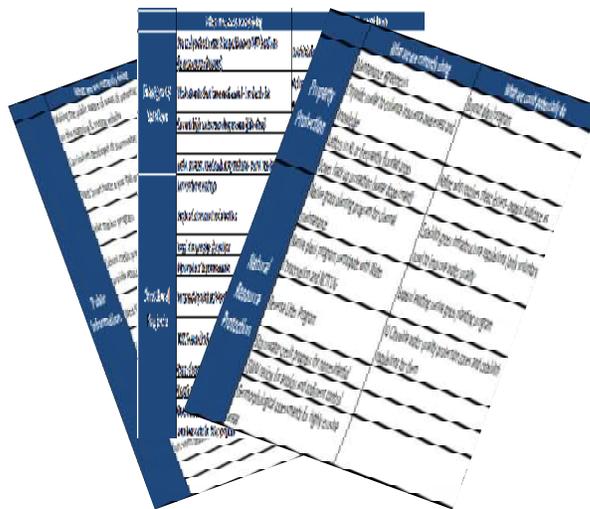


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Step 7: Review Possible Activities

- City discussion
- Planning group discussion
- MySidewalk Questions



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Step 8: Draft Action Plan

Preventative Activities

1. Continue ongoing preventative activities
2. Enhance stormwater maintenance program
3. Expand floodplain mapping and data availability
4. Expand open space preservation
5. Complete update of Stormwater Criteria Manual



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Step 8: Draft Action Plan

Property Protection

1. Continue ongoing property protection activities
2. Increase Flood Insurance Participation
3. Encourage Relocation, Acquisition, and Building Elevation projects



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Step 8: Draft Action Plan

Natural Resource Protection

1. Continue ongoing natural resource protection activities
2. Maintain current natural preserved areas
3. Develop regulations based on natural area preservation
4. Expand water quality regulations and education



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Step 8: Draft Action Plan

Emergency Services

1. Continue ongoing emergency services
2. Expand flood warning system
3. Improve hazard response operations



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Step 8: Draft Action Plan

Structural Projects

1. Continue ongoing structural projects
2. Complete storm drain capital projects
3. Complete detention capital projects
4. Reduce flood risk at hazardous road crossings
5. Pursue partnerships to complete stormwater projects



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Step 8: Draft Action Plan

Public Information Activities

1. Continue ongoing public information activities
2. Create targeted outreach programs
3. Provide additional outreach to community regarding flood risk
4. Improve education of flood risk to schools and youth
5. Educate the public about environmental protection
6. Provide technical assistance to the public on how to interpret flood risk



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Step 9: Adopt the Plan

- Plan and amendments are adopted by Council
- Incorporated into existing planning mechanisms (HMAP, Comprehensive plan)



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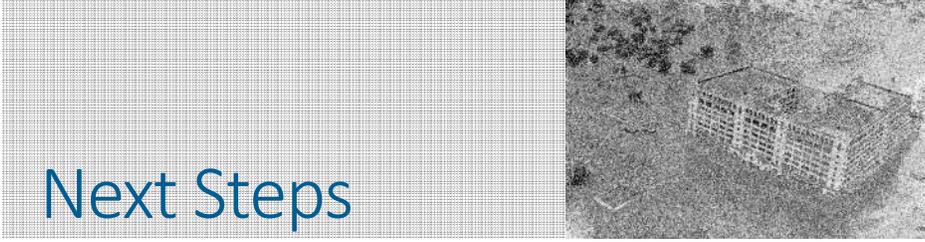
Step 10: Implement, Evaluate and Revise

- Procedures established for monitoring plan implementations, checking on progress, and recommending revisions



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Next Steps



Next Steps

<http://fortworthtexas.gov/stormwater/floodplain>

- Stakeholder Planning Group Meeting on Oct 6
- Public Input on Plan until October 30
- Council Adoption Process
- CRS submittal and review

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Comment Cards

- We would like your input
- Collecting information to help the community & develop a comprehensive plan
- Translation services available

**FLOODPLAIN MANAGEMENT PLAN
PUBLIC COMMENT CARD**

Name: _____ Phone: _____

Physical address: _____

Email address: _____

1. Do you live in a floodplain? Y N UNSURE

2. Do you have flood insurance? Y N UNSURE

3. Has your property flooded before? Y N UNSURE

(If yes, please describe and provide address if different from above)

4. Do you know of any flood prone areas that you would like to make the city aware of? Y N UNSURE

(If yes, please describe)

5. Which type of flood risk mitigation activities would you support? (check all that apply)

- Preventive activities (zoning, floodplain regulations, building codes, subdivision, ordinances)
- Natural floodplain function protection activities
- Property protection and mitigation activities
- Emergency service activities
- Public information activities

6. Any other comments you would like to share? _____



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Q&A

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