



CITY OF
TUSCALOOSA
FLOODPLAIN MANAGEMENT PLAN



FMPC Meeting #4
November 18, 2015



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FLOODPLAIN MANAGEMENT PLAN

ORGANIZATION OF 2015 FMP

2015 Floodplain Management Plan Structure

- **Chapter 1** – Introduction
- **Chapter 2** – Community Profile
- **Chapter 3** – The Planning Process
- **Chapter 4** – Risk Assessment
- **Chapter 5** – Mitigation Strategy
- **Chapter 6** – Plan Maintenance Procedures

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ORGANIZATION OF 2015 FMP APPENDICES

2015 Floodplain Management Plan Structure

- **Appendices and Supporting Documentation:**
- **A** - Resolution Establishing Planning Process
- **B** - Hazard Profile Data
- **C** - Risk Assessment Data
- **D** - Community Mitigation Capabilities
- **E** - Committee Meeting Documentation
- **F** - Community Involvement Documentation
- **G** - Adopting Resolution

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10-STEP PLANNING PROCESS



FMP Chapters	CRS Planning Step
Chapter 1 – Introduction	
Chapter 2 – Community Profile	
Chapter 3 – The Planning Process	Step 1: Organize to prepare the plan Step 2: Involve the public Step 3: Coordinate
Chapter 4 – Risk Assessment	Step 4: Assess the hazard Step 5: Assess the problem
Chapter 5 – Mitigation Strategy	Step 6: Set goals Step 7: Review possible activities Step 8: Draft an action plan
Chapter 6 – Plan Maintenance	Step 9: Adopt the plan Step 10: Implement, evaluate, revise

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CHAPTER 5, SECTION 5.1

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Floodplain Management Goals



 

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CHAPTER 5, SECTION 5.1

5.1.1 Purpose & Basis for Goals

- Vision – City aims to achieve active resistance to the threats of flooding and related natural hazards to human life and property through publicly-supported mitigation actions.
- Consistent with Tuscaloosa County Multi-Hazard Mitigation Plan

CHAPTER 5, SECTION 5.1

5.1.2 Goals for Floodplain Management

- **Preventive** – Manage the development of land & buildings to minimize the risk of loss due to flooding and related natural hazards.
- **Property Protection** – Protect structures and their occupants/contents from the damaging effects of flooding and related natural hazards.
- **Public Education and Awareness** – Educate and inform the public about the risks of flooding and related natural hazards and the techniques available to reduce threats to life and property.

CHAPTER 5, SECTION 5.1

5.1.2 Goals for Floodplain Management

- **Natural Resources Protection** – Preserve and restore the beneficial functions of floodplains and the natural environment to promote sustainable community development that balances the constraints of nature with the social and economic demands of the community.
- **Structural Projects** – Apply engineered structural modifications to natural systems and public infrastructure to reduce the potentially damaging impacts of flooding and related natural hazards, where found to be cost effective and environmentally suitable.
- **Emergency Services** – Improve the efficiency, timing, and effectiveness of response and recovery efforts for flooding and related disasters.

CHAPTER 5, SECTION 5.2

Review of Floodplain Management Activities

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CHAPTER 5, SECTION 5.2

5.2.1 Review of Current CRS Floodplain Management Activities

Preventive

- Activity 310 – Elevation Certificates (38 points)
- Activity 320 – Map Information Service (30 points)
- Activity 430 – Higher Regulatory Standards (177 points)
- Activity 440 – Flood Data Maintenance (100 points)
- Activity 450 – Stormwater Management (84 points)

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CHAPTER 5, SECTION 5.2

5.2.1 Review of Current CRS Floodplain Management Activities

Property Protection

- Activity 520 – Acquisition and Relocation (75 points)

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CHAPTER 5, SECTION 5.2

5.2.1 Review of Current CRS Floodplain Management Activities

Public Education and Awareness

- Activity 330 – Outreach Projects (66 points)
- Activity 340 – Hazard Disclosure (13 points)
- Activity 350 – Flood Protection Information (7 points)

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CHAPTER 5, SECTION 5.2

5.2.1 Review of Current CRS Floodplain Management Activities

Natural Resources Protection

- Activity 420 – Open Space Preservation (157 points)



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CHAPTER 5, SECTION 5.2

5.2.1 Review of Current CRS Floodplain Management Activities

Structural Projects

- No credit.



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CHAPTER 5, SECTION 5.2

5.2.1 Review of Current CRS Floodplain Management Activities

Emergency Services

- No credit.

CHAPTER 5, SECTION 5.2

5.2.2 Review Criteria: STAPLEE

Social Considerations

- Environmental justice
- Neighborhood impact
- Community support
- Impact on social & cultural resources

CHAPTER 5, SECTION 5.2

5.2.2 Review Criteria: STAPLEE

Technical Considerations

- Is the proposal technically feasible?
- Remaining technical issues?
- Does the measure effectively solve the problem?
- Consideration of secondary impacts?

CHAPTER 5, SECTION 5.2

5.2.2 Review Criteria: STAPLEE

Administrative Considerations

- Staffing
- Maintenance
- Timing

CHAPTER 5, SECTION 5.2

5.2.2 Review Criteria: STAPLEE

Political Considerations

- Do the Mayor & City Council support the proposed measure?
- Does the public support the measure?
- Do stakeholders support the measure?
- Any advocates?

CHAPTER 5, SECTION 5.2

5.2.2 Review Criteria: STAPLEE

Legal Considerations

- Does the City have legal authority to implement the measure?
- Legal consequences of taking action vs. taking no action?
- Will new legislation be required?

CHAPTER 5, SECTION 5.2

5.2.2 Review Criteria: STAPLEE

Environmental Considerations

- NEPA Compliance
- Compliance with State & local environmental regulations
- Environmental conservation goals

CHAPTER 5, SECTION 5.2

5.2.2 Review Criteria: STAPLEE

Economic Considerations

- Availability of funds
- Benefits to be derived from proposed measure
- Costs
- Economic feasibility
- Impact on local economy
- Economic development goals

CHAPTER 5, SECTION 5.2

5.2.3 Community Mitigation Action Program of the County Plan

Preventive

- Develop/adopt/implement subdivision regulations
- Mark depths of flooding/storm surge
- Conduct detailed planning/engineering studies
- Consider large lot size restrictions in flood prone areas
- Evaluate add. land use restrictions in flood zones
- Require delineation of floodplain fringe, floodways, wetlands
- Examine options for requiring open space
- Verify FEMA's repetitive loss inventory
- Review/revise landscaping standards for parking lots

CHAPTER 5, SECTION 5.2

5.2.3 Community Mitigation Action Program of the County Plan

Property Protection

- Evaluate elevation & culvert sizing of existing roadways in flash flood-prone areas
- Identify problem drainage areas & construct drainage improvements
- Elevate buildings in flood-prone areas where acquisition or relocation is not feasible
- Repair, elevate, and weatherize existing homes for low- to moderate-income families
- Flood proof pre-FIRM non-residential buildings
- Retrofit existing buildings, critical facilities & infrastructure
- Promote the purchase of insurance coverage

CHAPTER 5, SECTION 5.2

5.2.3 Community Mitigation Action Program of the County Plan

Public Education and Outreach

- Provide technical assistance to building owners on available retrofits
- Provide technical assistance to home owners, builders & developers on flood protection alternatives
- Publicize the availability of FIRM information
- Participate in the "Turn Around Don't Drown" program through purchase and installation of signs in known flash flood locations

CHAPTER 5, SECTION 5.2

5.2.3 Community Mitigation Action Program of the County Plans

Natural Resource Protection

- Promote adoption/enforcement of stormwater management regulations that maintain pre-development runoff rates
- Develop, adopt & implement subdivision regs. that require proper design
- Establish urban forestry program to help mitigate storm water runoff
- Increase open space acquisitions through FEMA/HMA Grant Programs
- Keep builders/developers informed of Federal wetlands permitting requirements of the Corps of Engineers
- Adopt and/or enforce regulations prohibiting dumping/littering within rivers and streams
- Utilize technical assistance from the Alabama Cooperative Extension System

CHAPTER 5, SECTION 5.2

5.2.3 Community Mitigation Action Program of the County Plan

Structural Projects

- Examine use of minor structural projects in areas that cannot be mitigated through non-structural mitigation techniques
- Prepare & implement SOPs for drainage system maintenance
- Construct drainage improvements to reduce/eliminate localized flooding in identified problem drainage areas



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CHAPTER 5, SECTION 5.2

5.2.3 Community Mitigation Action Program of the County Plan

Emergency Services



- Perform vulnerability assessments of critical facilities to identify retrofit projects
- Maintain appropriate media relationships to ensure public is informed of flood threats
- Upgrade siren-warning systems
- Upgrade critical communications infrastructure
- Require installation of weather radios in all public buildings and places of public assembly
- Distribute weather radios & emergency response instructions to residents

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CHAPTER 5, SECTION 5.2

5.2.4 Discussion of Alternative Mitigation Activities

Alternative Mitigation Measures Exercise

- Review alternative mitigation measures
- Use STAPLEE approach
- Eliminate measures that should NOT be included in the five-year plan
- Provide comments and suggestions.

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Preventive Activities
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Keep flood problems from getting worse through planning, permitting, and regulatory tools

Property Protection
...
Activities are measures taken to permanently protect property from flood damage, usually undertaken on a building-by-building basis

Public Information
...
Activities advise people about the flood hazard, encourage the purchase of flood insurance, and provide information about ways to reduce flood damage. These activities also generate data needed by insurance agents for accurate flood insurance rating. They generally serve all members of the community.

**Natural Resource
Protection**

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Activities preserve or restore natural areas or the natural functions of floodplain and watershed areas. They are implemented by a variety of agencies, primarily parks, recreation, or conservation agencies or organizations.

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Structural Projects

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Provide flood damage protection through activities such as maintaining drainage systems, retrofitting existing building to prevent flood damage, and structural flood control and drainage projects.

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Emergency Services


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Measures protect life and property during a flood, through flood warning and response programs during an emergency to minimize its impact. These measures are usually the responsibility of local emergency management staff and the owners or operators of critical facilities.

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CHAPTER 5, SECTION 5.3
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Floodplain Management Action Plan

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Floodplain Management Action Plan


Mitigation Actions by Goal Areas	Implementation Responsibility	Timeframe for Completion	Funding Source	Priority
1 Goal for Prevention. Manage the development of land and buildings to minimize risks of loss due to flooding and related natural hazards.				
1.2 Amend the City's flood hazard prevention ordinance to include higher regulatory standards for development limitations, freeboard, foundation protection, cumulative substantial improvements, lower substantial improvements threshold, and protection of critical facilities. (CRS activity 430 Higher Regulatory Standards)	Office of the City Engineer	Short Range	Existing City funds	High

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APPENDICES

App. D – Community Mitigation Capabilities

- Planning & Regulatory Tools
- GIS Resources
- Staffing & Administrative Resources
- Fiscal Resources
- Public Education & Outreach Programs
- Insurance Service Office (ISO) Ratings

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FMPC MEETING DATES AND TOPICS

Upcoming Meetings

- Meeting #5: January– Ch 5, Part B; and Ch 4






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COMMUNITY MEETINGS

Schedule of Meetings

- 2nd community meeting (optional)– 15 points

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CONSULTING TEAM

<p>Walter Schoel Engineering Company, Inc.</p> <p>William Thomas, PE, CFM Senior Project Manager 1001 22nd Street South Birmingham, AL 35205 (205) 313-1150 wthomas@schoel.com</p>	<p>Lehe Planning, LLC Urban and Environmental Planning</p> <p>Jim Lehe, AICP Manager 300 Century Park South; Ste. 216 Birmingham, AL 35226 (205) 978-3633 jelehe@leheplanning.com</p>
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