

**Ben Hill County
Pre-Disaster Mitigation Plan**

Chapter 4

Local Natural Hazard Mitigation Goals, Objectives, Tasks and Action Steps

Overall Community Mitigation Goals, Policies, and Values

The purpose of the Ben Hill County Pre-Disaster Mitigation Plan is to not only assess the vulnerability of the area to natural hazards, but to identify those action steps that may need to be undertaken to reduce the potential loss of life and property as a result of these hazards. To guide the development of this plan requires an overall set of community goals that clearly state the community's commitment to reducing or avoiding the long-term vulnerabilities to the identified hazards. With these overall goals in place, more specific goals, objectives, and action steps to protect the community from the identified hazards can then be developed. Using the findings from the Risk Assessment as a guide, the Ben Hill County Pre-Disaster Mitigation Planning Team has developed the following overall community hazard mitigation goals:

Goal # 1: Protect the public health and safety;

Goal #2: Eliminate, or reduce, exposure of critical community facilities to the hazards identified in the community risk assessment;

Goal #3: Where exposure to hazards cannot be limited, implement, to the extent resources are available, the action steps needed to reduce the potential loss of life and property;

Goal #4: Maintain and/or enhance the community's capacity to issue warnings, and respond promptly and effectively in the event of a hazard event.

With these overall community mitigation goals in place, the following Goals, Objectives, Tasks and Action Steps have been developed to specifically address the natural hazards identified in Chapter 2. The Goals, Objectives, Tasks and Action Steps were designed to meet the specific natural hazards and to help mitigate past repetitive damages from natural hazards in Ben Hill County and the City of Fitzgerald. In addition, the following methodology was utilized in ranking the priority of each action step:

High Priority – H

Medium Priority – M

Low Priority – L

High Priority – H – is considered to be an action step that needs to be taken first due to the most harmful threat posed to Ben Hill County and City of Fitzgerald and/or due to the greatest repetitive damages caused by natural hazards in Ben Hill County and City of Fitzgerald.

Medium Priority – M – is considered to be an action step that needs to be accomplished after the High Priority Action Steps are met or when additional funding is available.

Low Priority – L – is considered to be an Action Step that is important but is the lowest priority in meeting the needs of Ben Hill County and City of Fitzgerald.

In projecting a timetable for implementation of the action steps, Ben Hill County and the City of Fitzgerald will strive to meet the following schedule: High priority action steps will be implemented in the first eighteen months following adoption of this plan; Medium priority action steps will be implemented in eighteen to thirty-six months; and Low priority action steps will be implemented in thirty-six to sixty months. Action steps will be implemented utilizing a combination of resources from agencies such as OHS-GEMA, FEMA, NOAA, and others. Following each action step in the mitigation strategy, the plan identifies the Office of Primary Responsibility (OPR), estimated cost, anticipated funding source(s), anticipated benefit, and projected timeline.

With the overall community mitigation goals in place, the following Goals, Objectives, Tasks, and Action Steps have been developed to specifically address the natural hazards identified in Chapter 2.

I. Hurricanes/Tropical Storms

A. Community Mitigation Goals

In 2004, Ben Hill County experienced the effects of four hurricanes that came through Florida and South Georgia in a span of six weeks. In the prior 54 year period, the Ben Hill County area experienced 5 recorded hurricane and tropical storm events, causing over \$7 million in damages. Reducing potential loss of life and property through early, effective warnings to the general public is a goal of highest priority of this plan. In addition, steps should be taken to ensure that buildings and infrastructure are made more resistant to hurricane wind damage.

B. Identification & Analysis of Range of Mitigation Options

1. Structural and non-structural - Currently, the City of Fitzgerald and Ben Hill County rely on outdated early warning systems to advise the public of imminent danger from hurricanes and high wind events. Among the structural mitigation options in this plan is the acquisition of an Early Warning Communication/Notification System. Non-structural options include making the public more aware of steps they can take to protect themselves and their property in the event of a hurricane event.
2. Existing policies, regulations, ordinances and land use - As required by Georgia law, Ben Hill County, and the city of Fitzgerald have each adopted comprehensive plans in accordance with the Minimum Planning Standards promulgated by the Georgia Department of Community Affairs. In addition, other measures to guide development, including flood plain management ordinances, zoning ordinances and building codes are utilized.

3. Community values, historic, and special considerations – none identified.
4. New buildings and Infrastructure – The mitigation strategy and recommendations that follow include action steps designed to protect new buildings and infrastructure from the effects of hurricanes. See the action steps under Goal 2, Objective 1, Task B.
5. Existing Buildings and Infrastructure - The mitigation strategy and recommendations that follow include action steps designed to protect existing buildings and infrastructure from the effects of hurricanes. See the action steps under Goal 2, Objective 1, Task B.

C. Mitigation Strategy and Recommendations

Goal 1: Enhance the community’s ability to issue early warning of hurricanes in an effective, dependable, and rapid manner.

Objective 1: Ensure that a comprehensive early warning notification system is in place.

Task A. Upgrade the existing early warning systems.

Action Steps

- Seek funding for a county-wide Early Warning Communication/Notification System (BH,F) **H**
OPR: EMA, County Manager
Est. Cost: Existing Staff
Funding Source: Local Operating Funds and Grants
Benefit: Provide early warning to population of 17,000
Timeline: 2008 - 2009

Objective 2: Enhance the ability of the Ben Hill County Emergency Management Agency to respond effectively and efficiently to emergency needs during and after a hurricane event.

Task A. Ensure that community facilities and programs are in place to facilitate EMA’s emergency response.

Action Steps

- Seek funding for necessary 911 communications and operational equipment. (BH,F) **H**
OPR: 911 Director, EMA, County Manager
Est. Cost: \$300,000
Funding Source: SPLOST funds
Benefit: Provide emergency assistance to population of 17,000
Timeline: 2008 - 2009
- Become a designated “StormReady Community.” (BH,F) **H**

OPR: EMA, County Manager

Est. Cost: Existing Staff

Funding Source: Local Operating Funds

Benefit: Encourage self-protection of population of 17,000 through program requirements

Timeline: 2008 - 2009

- Implement the “Community Emergency Response Team” (CERT) program. (BH,F)

H

OPR: EMA, County Manager

Est. Cost: Existing Staff

Funding Source: Local Operating Funds

Benefit: Provide emergency response to population of 17,000

Timeline: 2008 - 2009

Goal 2: Reduce the risks and vulnerability of citizens and critical facilities to damage resulting from hurricanes.

Objective 1: Protect life, health and property of residents from force of hurricanes.

Task A. Advise the public about hurricane safety precautions.

Action Steps

- Educate homeowners and builders on individual safe rooms. (BH, F) **M**

OPR: EMA, Building Inspections Office

Est. Cost: Existing Staff

Funding Source: Local Operating Funds

Benefit: Provide secure shelter in all wind conditions for population of 17,000

Timeline: 2010 - 2011

- Distribute programs on personal emergency preparedness, i.e., emergency survival kits. (BH, F) **M**

OPR: EMA

Est. Cost: \$1,000

Funding Source: Local Operating Funds

Benefit: Encourage self-care for 8,000 families

Timeline: 2010 - 2011

- Encourage the American Red Cross to teach the Citizen’s Disaster Course on a frequent basis. (BH, F) **M**

OPR: EMA

Est. Cost: \$10,000

Funding Source: OHS-GEMA/FEMA

Benefit: Encourage self-care for 8,000 families

Timeline: 2010 – 2011

- Encourage businesses to develop emergency plans (BH, F) **M**

OPR: EMA

Est. Cost: Existing Staff

Funding Source: Local Operating Budget

Benefit: Encourage self-protection of 200 businesses

Timeline: 2010 - 2011

- Increase public awareness of the Early Warning Communication/Notification System, NOAA weather radios, and available community safe shelters by publishing articles in the local newspaper, holding town hall meetings, and providing bulletins to local churches and the schools. (BH, F) **M**

OPR: EMA, County Manager, Local Media

Est. Cost: Existing Staff

Funding Source: Local Operating Budget and Available Grants

Benefit: Encourage self-care by a population of 17,000 through reliable weather information at all times and communication of community shelter locations.

Timeline: 2010 - 2011

Task B. Reduce the potential impact of hurricanes on new and existing facilities and infrastructure.

Action Steps

- Install auxiliary generators for all designated evacuation and emergency shelters and community water systems. (BH, F) **M**

OPR: EMA, Building Inspector, Fitzgerald Water, Light & Bond, Irwin EMC and Georgia Power, Shelter Owners

Est. Cost: \$80,000

Funding Source: OHS-GEMA/FEMA

Benefit: Provide continuity of operations for 17,000 people during extended power outages

Timeline: 2010 - 2011

- Trim tree lines around roads, homes, utilities and businesses (BH, F) **L**

OPR: EMA, County Manager,

Est. Cost: \$30,000 Municipalities, Fitzgerald Water, Light & Bond, Georgia Power, Irwin EMC,

Funding Source: Local operating funds and business funding

Benefit: Reduce the likelihood of long-term power outage and damage to homes for a population of 17,000

Timeline: 2012 - 2013

- Seek funding to retrofit public buildings to reinforce windows, roofs and doors (BH,F) **M**

OPR: EMA, Building Inspections Office, Schools

Est. Cost: \$40,000

Funding Source: GEMA/FEMA

Benefit: Protect 3,000 school children and public

Timeline: 2010 - 2011

- Initiate an inspection program at critical facilities to identify construction weaknesses subject to high wind damage. (BH,F) **M**

OPR: Ben Hill County Staff, Building Inspections Office

Est. Cost: \$10,000

Funding Source: OHS-GEMA/FEMA

Benefit: Better protect government institutions and population of 17,000

Timeline: 2010 - 2011

- Review building codes for proper wind strength and safety regulations and for consistency with state and federal regulations (BH,F) **H**
OPR: Building Inspections Office, County Manager, City Manager
Est. Cost: Existing Staff
Funding Source: Local Operating Budget
Benefit: Insure that local codes provide reasonable protection from anticipated wind threats for 8,000 homes and structures.
Timeline: 2008 - 2009

D. Special Multi-Jurisdictional Strategy

Most action steps are intended to be implemented countywide and will be coordinated by the Ben Hill County Emergency Management Agency. The jurisdiction in which an action is intended to be undertaken is identified as follows: (BH) for Ben Hill County and (F) for City of Fitzgerald.

E. Public Information and Awareness

As noted in Chapter 6, Fitzgerald and Ben Hill County will ensure continued public participation in the plan maintenance and update process.

II. Tornadoes

A. Community Mitigation Goals

In the period from 1951-2004, the Ben Hill area experienced 11 recorded tornado events. Public officials throughout Ben Hill County realize that the ability to provide early, effective warnings to citizens of possible danger should be the highest priority of this mitigation plan. In addition, steps should be taken to ensure that buildings and infrastructure are made more resistant to tornado damage.

B. Identification and Analysis of Range of Mitigation Options

1. Structural and non-structural - Currently, the City of Fitzgerald and Ben Hill County rely on outdated early warning systems to advise the public of imminent danger from tornadoes. Among the structural mitigation options in this plan is the acquisition of an Early Warning Communication/Notification System. Non-structural options include making the public more aware of steps they can take to protect themselves and their property in the event of a tornado event.
2. Existing policies, regulations, ordinances and land use - As required by Georgia law, Ben Hill County, and the city of Fitzgerald have each adopted comprehensive plans in accordance with the Minimum Planning Standards promulgated by the Georgia Department of Community Affairs. In addition, other measures to guide development, including flood plain management ordinances, zoning ordinances and building codes are utilized.

3. Community values, historic, and special considerations – none identified.
4. New buildings and Infrastructure – The mitigation strategy and recommendations that follow include action steps designed to protect new buildings and infrastructure from the effects of tornadoes. See the action steps under Objective 1, Task B.
5. Existing Buildings and Infrastructure - The mitigation strategy and recommendations that follow include action steps designed to protect existing buildings and infrastructure from the effects of tornadoes. See the action steps under Objective 1, Task B.

C. Mitigation Strategy and Recommendations

Goal 1: Enhance the community’s ability to issue early warning of tornadoes in an effective, dependable, and rapid manner.

Objective 1: Ensure that a comprehensive early warning notification system is in place.

Task A. Get early warning systems in place.

Action Steps

- Seek funding for a county-wide Early Warning Communication/Notification System (BH,F) **H**
OPR: EMA, County Manager
Est. Cost: Existing Staff
Funding Source: Local Operating Funds and Grants
Benefit: Provide early warning to population of 17,000
Timeline: 2008 - 2009

Objective 2: Enhance the ability of the Ben Hill County Emergency Management Agency to respond effectively and efficiently to emergency needs during and after a tornado event.

Task A. Ensure that community facilities and programs are in place to facilitate EMA’s emergency response.

Action Steps

- Seek funding for necessary 911 communications and operational equipment. (BH,F) **H**
OPR: 911 Director, EMA, County Manager
Est. Cost: \$300,000
Funding Source: SPLOST funds
Benefit: Provide emergency assistance to population of 17,000
Timeline: 2008 - 2009
- Become a designated “StormReady Community” (BH,F) **H**
OPR: EMA, County Manager

Est. Cost: Existing Staff

Funding Source: Local Operating Funds

Benefit: Encourage self-protection of population of 17,000 through program requirements

Timeline: 2008 - 2009

- Implement the "Community Emergency Response Team" (CERT) program. (BH,F) **H**

OPR: EMA, County Manager

Est. Cost: Existing Staff

Funding Source: Local Operating Funds

Benefit: Provide emergency response to population of 17,000

Timeline: 2008 - 2009

Goal 2: Reduce the risks and vulnerability of citizens and critical facilities to tornado damage.

Objective 1: Protect life, health and property of residents from force of tornadoes.

Task A. Advise the public about tornado safety precautions.

Action Steps

- Educate homeowners and builders on individual safe rooms. (BH,F) **M**

OPR: EMA, Building Inspections Office

Est. Cost: Existing Staff

Funding Source: Local Operating Funds

Benefit: Provide secure shelter in all wind conditions for population of 17,000

Timeline: 2010 - 2011

- Distribute programs on personal emergency preparedness, i.e., emergency survival kits. (BH,F) **M**

OPR: EMA

Est. Cost: \$1,000

Funding Source: Local Operating Funds

Benefit: Encourage self-care for 8,000 families

Timeline: 2010 – 2011

- Encourage the American Red Cross to teach the Citizen's Disaster Course on a frequent basis. (BH,F) **M**

OPR: EMA

Est. Cost: \$10,000

Funding Source: OHS-GEMA/FEMA

Benefit: Encourage self-care for 8,000 families

Timeline: 2010 - 2011

- Encourage businesses to develop emergency plans (BH,F) **M**

OPR: EMA

Est. Cost: Existing Staff

Funding Source: Local Operating Funds

Benefit: Encourage self-protection of 200 businesses

Timeline: 2010 - 2011

- Increase public awareness of the Early Warning Communication/Notification System, NOAA weather radios, and available community safe shelters by publishing articles in the local newspaper, holding town hall meetings, and providing bulletins to local churches and the schools. (BH,F) **M**
OPR: EMA, County Manager, Local Media
Est. Cost: Existing Staff
Funding Source: Local Operating Budget and Available Grants
Benefit: Encourage self-care for a population of 17,000 through reliable weather information at all times and communication of community shelter locations
Timeline: 2010 - 2011

Task B. Reduce the potential impact of a tornado event on new and existing facilities and infrastructure.

Action Steps

- Install auxiliary generators for all designated evacuation and emergency shelters and community water systems. (BH,F) **M**
OPR: EMA, Building Inspector, Fitzgerald Water, Light & Bond, Irwin EMC and Georgia Power, Shelter Owners
Est. Cost: \$80,000
Funding Source: OHS-GEMA/FEMA
Benefit: Provide continuity of operations for 17,000 people during extended power outages
Timeline: 2010 - 2011
- Trim tree lines around roads, homes, utilities and businesses (BH,F) **L**
OPR: EMA, County Manager, Municipalities, Fitzgerald Water, Light & Bond, Georgia Power, Irwin EMC
Est. Cost: \$30,000
Funding Source: Local operating funds and business funding
Benefit: Reduce the likelihood of long-term power outage and damage to homes for a population of 17,000
Timeline: 2012 - 2013
- Seek funding to retrofit public buildings to reinforce windows, roofs and doors (BH,F) **M**
OPR: EMA, Building Inspections Office, Schools
Est. Cost: \$40,000
Funding Source: GEMA/FEMA
Benefit: Protect 3,000 school children and public
Timeline: 2010 - 2011
- Initiate an inspection program at critical facilities to identify potential construction weaknesses. (BH,F) **M**
OPR: Ben Hill County Staff, Building Inspections Office
Est. Cost: \$10,000
Funding Source: OHS-GEMA/FEMA
Benefit: Better protect government institutions and population of 17,000
Timeline: 2010 - 2011

- Review building codes for proper wind strength and safety regulations and for consistency with state and federal regulations. (BH,F) **H**
OPR: Building Inspections Office, County Manager, City Manager
Est. Cost: Existing Staff
Funding Source: Local Operating Budget
Benefit: Insure that local codes provide reasonable protection from anticipated wind threats for 8,000 homes and structures.
Timeline: 2008 - 2009

D. Special Multi-Jurisdictional Strategy

Most action steps are intended to be implemented countywide and will be coordinated by the Ben Hill County Emergency Management Agency. The jurisdiction in which an action is intended to be undertaken is identified as follows: (BH) for Ben Hill County and (F) for City of Fitzgerald.

E. Public Information and Awareness

As noted in Chapter 6, Fitzgerald and Ben Hill County will ensure continued public participation in the plan maintenance and update process.

III. FLOOD

A. Community Mitigation Goal

Throughout Ben Hill County the greatest risk of flooding occurs during periods of heavy rainfall, as a result of thunderstorms, hurricanes or tropical storms. During these events, storm water runoff causes creeks and tributaries to overflow and roadways are overtopped. The goal of this plan is to minimize the flood damage by identifying flood prone areas and improving drainage capacity.

B. Identification & Analysis of Range of Mitigation Options

1. Structural and non-structural – Structural options included in this plan include upgrading drainage facilities and acquisition of potential flood containment areas and properties in flood prone areas. Non-structural options include the development of an interactive flood model, and updating local FIRM maps.
2. Existing policies, regulations, ordinances and land use – As required by Georgia law, Ben Hill County, and the cities of Fitzgerald, , and have each adopted comprehensive plans in accordance with the Minimum Planning Standards promulgated by the Georgia Department of Community Affairs. In addition, other measures to guide development, including flood plain management ordinances, zoning ordinances and building codes are utilized. Any project involving the disturbance of more than one acre such as single-family attached units, churches, multi-family developments, commercial developments, industrial developments, and planned developments are required to have approved storm water management plans. Also the

enforcement of land use restrictions through their respective zoning ordinances.

3. Community values, historic & special considerations - None identified.
4. New buildings and Infrastructure – The mitigation strategy and recommendations that follow include action steps designed to protect new buildings and infrastructure from the effects of flooding. See the action steps under Objective 1, Tasks A and B, and Objective 3, Task A.
5. Existing Buildings and Infrastructure - The mitigation strategy and recommendations that follow include action steps designed to protect existing buildings and infrastructure from the effects of flooding. See the action steps under Objective 1, Tasks A, B and D, and Objective 3, Task A.

C. Mitigation Strategy and Recommendation

Goal 1: Minimize flood damage in Ben Hill County

Objective 1: Minimize losses to existing and future structures due to flooding caused by excessive rainfall.

Task A. Identify flood-prone areas.

Action Steps

- Petition FEMA to provide local Flood Insurance Rate (FIRM) Maps. (BH,F) **H**
OPR: EMA
Est. Cost: Existing Staff
Funding Source: OHS-GEMA/FEMA
Benefit: Provide up-to-date flood information for a population of 17,000
Timeline: 2008 - 2009
- Identify areas within Ben Hill County that experience repetitive localized flooding and evaluate potential increases in minimum building floor elevations. (BH,F) **H**
OPR: EMA, Engineering Dept., Fitzgerald City Manager, Fitzgerald City Clerk, Fitzgerald Council
Est. Cost: Existing Staff
Funding Source: Local Operating Funds
Benefit: Reduce potential for flooding around homes and roads for a population of 17,000
Timeline: 2008 - 2009
- Seek funding to evaluate and retrofit critical facilities (as necessary) to ensure adequate protection from flooding events. (BH,F) **M**
OPR: EMA
Est. Cost: \$2,000,000
Funding Source: GEMA/FEMA
Benefit: Protect lives and property of population of 17,000 from loss
Timeline: 2008 - 2009

Task B. Upgrade drainage facilities in identified flood-prone areas.

Action Steps

- Review data on storm events to determine where repetitive flooding occurs as a result of inadequate drainage infrastructure. (BH,F) **H**
OPR: EMA, City Manager, County Manager
Est. Cost: Existing Staff
Funding Source: Local Operating Funds
Benefit: Start a process to protect lives and property of 4585 persons living at risk of flooding
Timeline: 2008 - 2009
- Identify and pursue grant opportunities to upgrade deficient drainage systems. (BH,F) **H**
OPR: EMA, City Manager, County Manager
Est. Cost: Existing staff
Funding Source: Local Operating Funds
Benefit: Protect lives and property of 4585 persons living at risk of flooding.
Timeline: 2008 - 2009
- Design and construct flood control measures to control flooding along Turkey Creek and its tributaries. (BH,F) **H**
OPR: EMA, City Manager, County Manager
Est. Cost: \$1,200,000
Funding Source: OHS-GEMA/FEMA
Benefit: Control perennial flooding damage from Turkey Creek
Timeline: 2008 – 2009

Task C. Evaluate potential property and structural losses due to flooding caused by natural hazards.

Action Steps

- Utilize tax evaluation data to determine cost effectiveness of acquiring properties in flood prone areas. (BH,F) **M**
OPR: Tax Assessors Office
Est. Cost: Existing Staff
Funding Source: Local Operating Funds
Benefit: Assist in relieving flooding problems for approximately 1477 homes and businesses at risk of flooding
Timeline: 2010 - 2011
- Identify new properties and pursue funding to acquire properties in flood prone areas. (BH,F) **M**
OPR: EMA, Engineer
Est. Cost: \$200,000
Funding Source: OHS-GEMA/FEMA
Benefit: Resolve repetitive damage to approximately 20 homes and businesses
Timeline: 2010 - 2011

Objective 2: Protect and preserve flood-prone areas for green space use, such as community parks and recreation areas.

Task A. Promote acquisition of flood-prone areas.

Action Steps

- Monitor comprehensive land use plans to ensure mapping of lands to be permanently protected. (BH,F) **L**
OPR: EMA, Planning and Zoning Office
Est. Cost: Existing Staff
Funding Source: Local Operating Funds
Benefit: Permanently protect flood-prone areas from building.
Timeline: 2012 - 2013
- Monitor existing subdivision regulations to promote conservation of floodplains, wetlands, and groundwater recharge areas. (BH,F) **M**
OPR: EMA, Planning and Zoning Office
Est. Cost: Existing Staff
Funding Source: Local Operating Funds
Benefit: Prohibit repetitive damage to homes and businesses
Timeline: 2010 - 2011
- Seek funding from private foundations, individuals, federal and state grants, and local communities to leverage available green space grant funds. (BH,F) **M**
OPR: EMA, Engineer
Est. Cost: \$200,000
Funding Source: OHS-GEMA/FEMA, State, local, private foundations and individual assistance
Benefit: Government purchase of greenspace to permanently protect flood-prone areas
Timeline: 2010 - 2011
- Educate public and private organizations on methods for preserving parks and recreation areas. (BH,F) **M**
OPR: EMA, Recreation Department
Est. Cost: Existing Staff
Funding Source: Local Operating Funds
Benefit: Help the public to better appreciate the efforts of government to protect flood-prone areas from development.
Timeline: 2010 - 2011

Objective 3: Establish correct boundaries for flood-prone areas along the Ocmulgee River in Ben Hill County.

Task A. Acquire updated local Flood Insurance Rate (FIRM) Maps.

Action Step

- Petition FEMA to provide local FIRM maps. (BH) **H**

OPR: EMA, County Engineer

Est. Cost: Existing Staff

Funding Source: OHS-GEMA/FEMA

Benefit: Provide up-to-date flood information for 755 residents living at risk of flooding in the unincorporated area

Timeline: 2008 - 2009

Task B. Utilize river gauges to establish flood data.

Action Step

- Petition the National Weather Service or US Geological Survey to place and maintain river gauges at identified locations along Ocmulgee River in Ben Hill County. (BH)

M

OPR: EMA

Est. Cost: \$10,000

Funding Source: OHS-GEMA/FEMA

Benefit: Provide river flood warning and develop historical data.

Timeline: 2010 - 2011

Objective 5: Explore incorporation of increased buffers around natural features in Ben Hill County.

Task A. Explore the possibility of expanding buffers around natural features to include but not be limited to rivers, streams, wetlands, and other natural features.

Action Step

- Evaluate existing regulations to determine if buffering around natural features is adequate. (BH,F) **M**

OPR: Planning and Zoning Office

Est. Cost: Existing Staff

Funding Source: Local Operating Funds

Benefit: Provide increased protection for approximately 20 houses and businesses from flooding

Timeline: 2010 - 2011

D. Special Multi-Jurisdictional Strategy

Most action steps are intended to be implemented countywide and will be coordinated by the Ben Hill County Emergency Management Agency. The jurisdiction in which an action is intended to be undertaken is identified as follows: (BH) for Ben Hill County and (F) for City of Fitzgerald.

E. Public Information and Awareness

As noted in Chapter 6, Ben Hill County and Fitzgerald and will ensure continued public participation in the plan maintenance and update process.

IV. Lightning

A. Community Mitigation Goals

While lightning can cause significant property damage, the potential for personal injury is also high for an unprepared public. Ensuring that the citizenry is aware of these dangers and the community is able to quickly issue warnings of possible severe lightning events is a very important goal of the community's emergency preparedness.

B. Identification & Analysis of Range of Mitigation Options

1. Structural and non-structural – The non-structural mitigation options for mitigating this hazard include improving educational and awareness activities to increase the public's knowledge of the danger and actions to take when they occur. The installation of lightning detection devices at recreational facilities is a structural option that could save lives due to the improved early warning capability.
2. Existing policies, regulations, ordinances and land use - As required by Georgia law, Ben Hill County, and the city of Fitzgerald and have each adopted comprehensive plans in accordance with the Minimum Planning Standards promulgated by the Georgia Department of Community Affairs. In addition, other measures to guide development, including flood plain management ordinances, zoning ordinances and building codes are utilized.
3. Community values, historic, and special considerations – none identified.
4. New buildings and Infrastructure – As noted in Chapter 2, the risk of lightning is mainly to the citizens of Ben Hill County. Therefore, the mitigation strategy and recommendations that follow include action steps designed to protect the health and safety of the general public from the effects of lightning, rather than new buildings and infrastructure.
5. Existing Buildings and Infrastructure - As noted above, the risk of lightning is mainly to the citizens of Ben Hill County. Therefore, the mitigation strategy and recommendations that follow include action steps designed to protect the health and safety of the general public from the effects of lightning, rather than existing buildings and infrastructure.

C. Mitigation Strategy and Recommendations

Goal 1: Protect Citizens of Ben Hill County from the threat of lightning strikes.

Objective 1: Provide tools necessary for warning of lightning strikes.

Task A: Research, evaluate and implement, if feasible, an automatic lightning warning arrangement for public outside recreational and public school activities.

Action Steps

- Provide every public outdoor recreation facility and every public school outdoor recreation facility with automatic warning device, if feasible. (BH,F) **M**
OPR: EMA, Recreation
Est. Cost: \$5,000
Funding Source: OHS-GEMA/FEMA
Benefit: Protect approximately 17,000 school children and public from being struck by lightning
Timeline: 2010 - 2011
- Make lightning warning system information available to other entities having significant outdoor activities, such as golf courses, businesses, airport, etc. (BH,F) **L**
OPR: EMA
Est. Cost: Existing Staff
Funding Source: Local Operating Funds
Benefit: Leverage government effort to private organizations to benefit approximately 200 people
Timeline: 2012 - 2013
- Educate public on the risks of lightning. (BH,F) **H**
OPR: EMA
Est. Cost: Existing Staff
Funding Source: Local Operating Funds
Benefit: Help the population of 17,000 protect themselves
Timeline: 2008 - 2009
- Ben Hill County public information officer, in coordination with Fitzgerald public information officer, will provide news media with press releases concerning lightning. (BH,F) **M**
OPR: EMA, Public Information Officers
Est. Cost: Existing Staff
Funding Source: Local Operating Funds
Benefit: Protect population of 17,000 from being struck by lightning
Timeline: 2010 - 2011

D. Special Multi-Jurisdictional Strategy

Most action steps are intended to be implemented countywide and will be coordinated by the Ben Hill County Emergency Management Agency. The jurisdiction in which an action is intended to be undertaken is identified as follows: (BH) for Ben Hill County and (F) for City of Fitzgerald.

E. Public Information and Awareness

As noted in Chapter 6, Ben Hill County and Fitzgerald and will ensure continued public participation in the plan maintenance and update process.

V. WILDFIRE

A. Community Mitigation Goals

While most of Ben Hill County remains a mostly rural community outside the city limits of Fitzgerald, there is beginning to be substantial development in the county in areas surrounded by forests populated with pines, oaks and dense ground vegetation. Especially during prolonged periods of drought, the threat of wildfire is a disaster that could cause extensive property damage and injury. The plan addresses this threat by including options to better identify where the threat is the greatest due to urbanization of the county, and reducing the threat through public awareness.

B. Identification & Analysis of Range of Mitigation Options

1. Structural and non-structural – Options to mitigate possible losses due to wildfires in Ben Hill County range from non-structural actions steps designed to educate the public about the danger of wildfires to action steps that involve the acquisition of equipment to increase the wildland firefighting capacity of the community.
2. Existing policies, regulations, ordinances and land use - As required by Georgia law, Ben Hill County, and the city of Fitzgerald have each adopted comprehensive plans in accordance with the Minimum Planning Standards promulgated by the Georgia Department of Community Affairs. In addition, other measures to guide development, including flood plain management ordinances, zoning ordinances and building codes are utilized.
3. Community values, historic, and special considerations – none identified.
4. New buildings and Infrastructure – All of the action steps under Objective 1, Task A are designed to protect new buildings and infrastructure from the effects of wildfire.
5. Existing Buildings and Infrastructure - All of the action steps under Objective 1, Task A are designed to protect existing buildings and infrastructure from the effects of wildfire.

C. Mitigation Strategy and Recommendations

Goal 1: Prevent damage resulting from wildfires in Ben Hill County, reduce the threat of wildfires, and protect the life and property of residents.

Objective 1: Minimize the threat of wildfires to persons and properties in Ben Hill County.

Task A: Prepare a comprehensive Urban/Wildland Interface Fire Map and Fire-Wise Program for Ben Hill County and City of Fitzgerald for community planning purposes that will visually show the threat to personal property from wild fires and mitigate the threat.

Action Steps

- The chiefs of the fire departments, in cooperation with the Geographical Information System Department at the South Georgia Regional Development Center, develop a comprehensive map of Ben Hill County showing the risk of wildfire to personal property. (BH,F) **H**
OPR: FFD, BHCVFD
Est. Cost: Existing Staff
Funding Source: Local Operating Funds
Benefit: Develop Comprehensive information regarding wildfire threats for planning and public protection for population of 17,000
Timeline: 2008 - 2009
- Request the Greater Ben Hill County Planning Commission to consider the use of Urban/Wildland Interface in the development of its comprehensive plan. (BH,F) **M**
OPR: Planning Commission, EMA, City Manager, County Manager
Est. Cost: Existing Staff
Funding Source: Local Operating Funds
Benefit: Institutionalize Urban/Wildland Interface into community planning for population of 17,000
Timeline: 2010 - 2011

D. Special Multi-Jurisdictional Strategy

Most action steps are intended to be implemented countywide and will be coordinated by the Ben Hill County Emergency Management Agency. The jurisdiction in which an action is intended to be undertaken is identified as follows: (BH) for Ben Hill County and (F) for City of Fitzgerald.

E. Public Information and Awareness

As noted in Chapter 6, Ben Hill County Fitzgerald and will ensure continued public participation in the plan maintenance and update process.

VI. Extreme Heat

A. Community Mitigation Goals

The South Georgia area is subject to extreme high temperatures and humidity during the summer months, and heat induced illness can be very serious and even fatal for many population groups in the community. The goal of the community is to prevent such injuries and deaths by providing those at risk with timely warnings of danger to ensure their ability to take precautions and seek shelter.

B. Identification & Analysis of Range of Mitigation Options

1. Structural and non-structural – There are no structural options considered, since there are appropriate facilities available throughout the county to serve as shelters when needed. Non-structural options include developing a methodology to predict heat stress days and properly disseminating warnings to the public.
2. Existing policies, regulations, ordinances and land use - As required by Georgia law, Ben Hill County, and the city of Fitzgerald have each adopted comprehensive plans in accordance with the Minimum Planning Standards promulgated by the Georgia Department of Community Affairs. State regulations apply to the operations of emergency shelters. There are currently no local ordinances or regulations affecting emergency shelters.
3. Community values, historic & special considerations – none identified.
4. New buildings and Infrastructure – As noted in Chapter 2, the risk of extreme heat is mainly to the citizens of Ben Hill County. Therefore, the mitigation strategy and recommendations that follow include action steps designed to protect the health and safety of the general public from the effects of extreme heat, rather than new buildings and infrastructure.
5. Existing Buildings and Infrastructure - As noted above, the risk of extreme heat is mainly to the citizens of Ben Hill County. Therefore, the mitigation strategy and recommendations that follow include action steps designed to protect the health and safety of the general public from the effects of extreme heat, rather than existing buildings and infrastructure.

C. Mitigation Strategy and Recommendations

Goal 1: Ensure the citizens of Ben Hill County are warned of conditions of extreme heat.

Objective 1: Employ methodology for determining “Heat Stress” days in Ben Hill County and forecasting the danger.

Task A: Petition the National Weather Service to include “Heat Stress” information in the Ben Hill County weather forecast.

Action Step

- The Director, Ben Hill County Emergency Management Center, request assistance from the National Weather Service/Tallahassee. (BH,F) **M**
OPR: EMA, E911, NWS
Est. Cost: Existing Staff
Funding Source: National Weather Service

Benefit: Provide population of 17,000 with warning of unhealthy heat and humid environment

Timeline: 2010 - 2011

Objective 2. Provide potential heat-stress victims with emergency shelter.

Task A. Maintain a network of equipped emergency shelters throughout Ben Hill County.

Action Step

- Designate emergency shelters in consultation with appropriate organizations (Red Cross, Senior Citizen Centers, hospital, churches, health department, etc.) (BH,F) **H**

OPR: EMA, American Red Cross

Est. Cost: Existing Staff

Funding Sources: DFACS, Public Health, State funds

Benefit: Make available emergency shelter for 4000 elderly/low income persons

Timeline: 2008 - 2009

D. Special Multi-Jurisdictional Strategy

Most action steps are intended to be implemented countywide and will be coordinated by the Ben Hill County Emergency Management Agency. The jurisdiction in which an action is intended to be undertaken is identified as follows: (BH) for Ben Hill County and (F) for City of Fitzgerald.

E. Public Information and Awareness

As noted in Chapter 6, Ben Hill County will ensure continued public participation in the plan maintenance and update process.

VII. Drought

A. Community Mitigation Goals

The goal of this plan is to reduce the effects of long-term drought on the public health and safety by ensuring the availability of adequate drinking water supplies.

B. Identification & Analysis of Range of Mitigation Options

1. Structural and non-structural - Negating the effects of drought on the supply of drinking water will require mostly non-structural mitigation options. These options include acquiring funds to study the effect of drought on public and domestic underground water systems, and determining the conditions that place such systems at risk.
2. Existing policies, regulations, ordinances and land use - As required by Georgia law, Ben Hill County, and the city of Fitzgerald and have each adopted comprehensive plans in accordance with the Minimum Planning Standards promulgated by the Georgia Department of Community Affairs. In

addition, other measures to guide development, including flood plain management ordinances, zoning ordinances and building codes are utilized. Currently, the Georgia Department of Natural Resources issues water use restrictions when conservation procedures are deemed necessary. Ben Hill County and City of Fitzgerald observe the DNR mandatory restrictions.

3. Community values, historic & special considerations - None identified.
4. New buildings and Infrastructure – As noted in Chapter 2, the risk of drought is mainly to the citizens of Ben Hill County. Therefore, the mitigation strategy and recommendations that follow include action steps designed to protect the health and safety of the general public from the effects of drought, rather than new buildings and infrastructure.
5. Existing Buildings and Infrastructure - As noted above, the risk of drought is mainly to the citizens of Ben Hill County. Therefore, the mitigation strategy and recommendations that follow include action steps designed to protect the health and safety of the general public from the effects of drought, rather than existing buildings and infrastructure.

C. Mitigation Strategy and Recommendation

Goal 1: Protect Ben Hill County from the effects of drought conditions.

Objective 1: Ensure adequate drinking water supply is available during drought conditions.

Task A: Complete underground water-level study of public and domestic water systems for Ben Hill County and City of Fitzgerald to determine water-level conditions that would lead to public and domestic water systems shortage/failure.

Action Steps

- Develop a comprehensive study that will allow community leaders to understand when public and domestic underground water systems' water-levels are threatened. (BH,F) L
OPR: EMA, Fitzgerald Water, Light & Bond
Est. Cost: \$25,000
Funding Source: OHS-GEMA/FEMA
Benefit: Provide community political leadership, utilities and emergency management with comprehensive information regarding underground water conditions, to anticipate domestic water shortages and take mitigating action to protect population of 17,000
Timeline: 2012 - 2013
- A public utility, on behalf of all utilities in Ben Hill County, apply for mitigation grant to finance a study of underground water levels, weather conditions and usage

that will forecast a threat to public and domestic water systems and the number and location of public and domestic water systems. (BH,F) L

OPR: EMA, Fitzgerald Water, Light & Bond

Est. Cost: \$25,000

Funding Source: OHS-GEMA/FEMA

Benefit: Provide community political leadership, utilities and emergency management with comprehensive information regarding underground water conditions, to anticipate domestic water shortages and take mitigating action to protect population of 17,000

Timeline: 2012 - 2013

- A public utility, on behalf of all utilities in Ben Hill County, contract for a comprehensive study of underground water levels, weather and usage conditions that place public and domestic water systems at risk and the number and location of public and domestic water systems. (BH,F) L

OPR: EMA, Fitzgerald Water, Light & Bond

Est. Cost: \$25,000

Funding Source: OHS-GEMA/FEMA

Benefit: Provide community political leadership, utilities and emergency management with comprehensive information regarding underground water conditions, to anticipate domestic water shortages and take mitigating action to protect population of 17,000

Timeline: 2012 – 2013

Task B: Provide temporary water supplies for domestic consumption as needed during drought conditions.

Action Steps

- After the development of the comprehensive study of underground water supplies serving the public and domestic water systems, develop a tiered plan to provide temporary water supplies for domestic consumption on an as needed basis. (BH,F) L

OPR: EMA, Fitzgerald Water, Light & Bond

Est. Cost: Existing Staff

Funding Source: Local Operating Funds

Benefit: Have plan to provide life-sustaining water for population of 17,000

Timeline: 2012 – 2013

D. Special Multi-Jurisdictional Strategy

Most action steps are intended to be implemented countywide and will be coordinated by the Ben Hill County Emergency Management Agency. The jurisdiction in which an action is intended to be undertaken is identified as follows: (BH) for Ben Hill County and (F) for City of Fitzgerald.

E. Public Information and Awareness

As noted in Chapter 6, Ben Hill County and Fitzgerald will ensure continued public participation in the plan maintenance and update process.