

NEW ACTIONS

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Each of the actions in this section were prioritized based on FEMA’s STAPLE+E criteria, which includes considering the social, technical, administrative, political, legal, economic and environmental factors necessary for the implementation of each action.

As part of the STAPLE+E analysis economic considerations were weighed for each action. The planning team evaluated each action in terms of the overall costs, measuring whether the potential benefit to be gained from the action outweighed all costs associated with it. As a result of this exercise an overall priority was assigned to each mitigation action. The overall priority was denoted within each action by team members identifying actions as High (H), Moderate (M), or Low (L). An action that is ranked as “High” indicates that the action will be implemented as soon as funding is received. A “Moderate” action is one that may not be implemented right away depending on the cost and number of citizens served by the action. Actions ranked as “Low” indicate that they will not be implemented without first seeking grant funding and after “High” and “Moderate” actions have been completed. Note that these priorities are subject to change as funding becomes available to the GBRA and the jurisdictions therein.

There are at least two mitigation actions for each of the 14 hazards in the Plan Update. In developing individual mitigation actions, each jurisdiction identified, evaluated and analyzed the regional actions developed by the GBRA. National Flood Insurance Program (NFIP) mitigation actions have been developed and prioritized to ensure continual compliance. These actions are denoted with “(NFIP)” next to each corresponding action number in the beginning row of each mitigation action.

In addition to the actions included in this section all of the previous actions are included in Section 20 of the Plan Update. For each of the past actions an analysis is included after each stating whether it will be deleted, is completed or will be deferred. Any actions that are marked as “deferred” in Section 20 will carry over for the Plan Update.

SECTION 21: NEW ACTIONS

GBRA Regional Actions

| GBRA - 1 | |
|-------------------------------|--|
| Proposed Action: | Repair erosion downstream of hydro dams |
| BACKGROUND INFORMATION | |
| Site and Location: | The plants are located just downstream of the City of New Braunfels and the last plant is just upstream of the City of Gonzales. |
| History of Damages: | The Guadalupe River experiences frequent small to large flood events which create bank and riverbed erosion downstream of the six low head hydroelectric plants. |

| MITIGATION ACTION DETAILS | |
|--|--------------------------------------|
| Hazard(s) Addressed: | Dam Failure |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$5,000,000 |
| Potential Funding Sources: | Grants, Hydro Electric Budget, Bonds |
| Lead Agency/Department Responsible: | GBRA Hydro Electric Division |
| Implementation Schedule: | 2016 |

SECTION 21: NEW ACTIONS

| GBRA - 2 | |
|-------------------------------|--|
| Proposed Action: | Harden spillways and embankments to handle extreme flood events |
| BACKGROUND INFORMATION | |
| Site and Location: | The six hydroelectric dams and plants were constructed in the 1920's. Increased development upstream may increase the magnitude and frequency of flood event |
| History of Damages: | Earthen embankments need to be hardened in the event of possible dam failure |

| MITIGATION ACTION DETAILS | |
|--|---------------------------------|
| Hazard(s) Addressed: | Dam Failure |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$15,000,000 |
| Potential Funding Sources: | Grants, Bonds, Operating Budget |
| Lead Agency/Department Responsible: | GBRA Hydro Electric Division |
| Implementation Schedule: | 2016 |

SECTION 21: NEW ACTIONS

| GBRA - 3 | |
|-------------------------------|---|
| Proposed Action: | Develop and implement brush management programs in key areas within the GBRA Basin |
| BACKGROUND INFORMATION | |
| Site and Location: | Various streams and rivers within GBRA Basin |
| History of Damages: | In Central Texas, brush such as Mesquite and Juniper have taken over the pasture land and resulted in reduced runoff to the streams and rivers of the region. |

| MITIGATION ACTION DETAILS | |
|--|-----------------------------------|
| Hazard(s) Addressed: | Drought |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grants, Bonds, Low interest loans |
| Lead Agency/Department Responsible: | Staff |
| Implementation Schedule: | 2016 |

SECTION 21: NEW ACTIONS

| GBRA - 4 | |
|-------------------------------|--|
| Proposed Action: | Review and update drought contingency plans annually and provide public information regarding drought awareness |
| BACKGROUND INFORMATION | |
| Site and Location: | GBRA has developed a drought contingency plan for Canyon Lake, the only water supply reservoir within the river basin. |
| History of Damages: | Drought has occurred historically and periodically |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Drought |
| Effect on new/existing buildings: | An effective drought contingency plan can extend water supplies of affected jurisdictions and affected structures |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$10,000 |
| Potential Funding Sources: | GBRA Operating Budget |
| Lead Agency/Department Responsible: | Engineering Department |
| Implementation Schedule: | 2016 |

SECTION 21: NEW ACTIONS

| GBRA - 5 | |
|-------------------------------|--|
| Proposed Action: | Develop new water supply projects and initiatives working with colleagues in Region L |
| BACKGROUND INFORMATION | |
| Site and Location: | The State of Texas updates the State Water Plan every 5 years. This water planning effort divides the state into 16 regions. The Guadalupe Basin is covered by Region L. |
| History of Damages: | Future water supply a concern |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Drought |
| Effect on new/existing buildings: | GBRA's continued participation within the planning effort will help ensure the region has an adequate water supply. |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$10,000 |
| Potential Funding Sources: | Operating Budget |
| Lead Agency/Department Responsible: | Engineering |
| Implementation Schedule: | 2011 |

SECTION 21: NEW ACTIONS

| GBRA - 6 | |
|-------------------------------|---|
| Proposed Action: | Develop training program for employees on hydration and other safety protection measures pertaining to working outdoors in extreme heat |
| BACKGROUND INFORMATION | |
| Site and Location: | Employees at GBRA's water, wastewater, and hydroelectric plants are required to work long hours outdoors, which exposes them to the extreme Texas heat and ultraviolet light. Reduces lost time and overtime by rotating employees. |
| History of Damages: | None |

| MITIGATION ACTION DETAILS | |
|--|-------------------------|
| Hazard(s) Addressed: | Extreme Heat |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$2,000 annually |
| Potential Funding Sources: | GBRA plant operations |
| Lead Agency/Department Responsible: | GBRA Operations Manager |
| Implementation Schedule: | 2011 |

SECTION 21: NEW ACTIONS

| GBRA - 7 | |
|-------------------------------|--|
| Proposed Action: | Install stream gauges and citizen monitors where needed in the Basin and develop software to allow general public to view gauges and anticipated flood events |
| BACKGROUND INFORMATION | |
| Site and Location: | Key streams in Basin. River flow gauges provide invaluable information to the NWS during a flood event. |
| History of Damages: | Fewer gauges results in less warning time during severe storm and weather events |

| MITIGATION ACTION DETAILS | |
|--|-----------------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$100,000 |
| Potential Funding Sources: | Grants, Other government entities |
| Lead Agency/Department Responsible: | Engineering Department |
| Implementation Schedule: | 2015 |

SECTION 21: NEW ACTIONS

GBRA - 8

| | |
|-------------------------------|---|
| Proposed Action: | Develop hydrologic forecast models for the Guadalupe Basin |
| BACKGROUND INFORMATION | |
| Site and Location: | Model entire watershed |
| History of Damages: | The headwaters of the Guadalupe Basin are located in a region known as "Flash Flood Alley". These intense rain events are difficult to forecast. Better tools are needed. |

| MITIGATION ACTION DETAILS | |
|--|-------------------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$2,000,000 |
| Potential Funding Sources: | Grants, Each plant operation budget |
| Lead Agency/Department Responsible: | Engineering Dept. |
| Implementation Schedule: | 2015 |

SECTION 21: NEW ACTIONS

| GBRA - 9 | |
|-------------------------------|---|
| Proposed Action: | Develop job description and employ new FTE Risk Assessment personnel and/or retain consultant |
| BACKGROUND INFORMATION | |
| Site and Location: | GBRA employees are at risk to exposure to hazardous chemicals. |
| History of Damages: | |

| MITIGATION ACTION DETAILS | |
|--|-----------------------------|
| Hazard(s) Addressed: | Hazardous Materials Release |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$100,000 annually |
| Potential Funding Sources: | O&M Budget |
| Lead Agency/Department Responsible: | Operations Manager |
| Implementation Schedule: | 2012 |

SECTION 21: NEW ACTIONS

| GBRA - 10 | |
|-------------------------------|---|
| Proposed Action: | Implement employee training on hazardous material release prevention and response |
| BACKGROUND INFORMATION | |
| Site and Location: | Key GBRA sites housing hazardous materials |
| History of Damages: | GBRA employees work with and are exposed to hazardous materials. |

| MITIGATION ACTION DETAILS | |
|--|-----------------------------|
| Hazard(s) Addressed: | Hazardous Materials Release |
| Effect on new/existing buildings: | N/A. |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$2,000 |
| Potential Funding Sources: | GBRA operational budgets |
| Lead Agency/Department Responsible: | |
| Implementation Schedule: | 2011 |

SECTION 21: NEW ACTIONS

| GBRA - 11 | |
|-------------------------------|--|
| Proposed Action: | Develop and implement a pathogen control plan |
| BACKGROUND INFORMATION | |
| Site and Location: | GBRA developed a pathogen control plan for the Victoria operations, aimed at reducing potential exposure to infectious diseases from wastewater. |
| History of Damages: | Potential for Infectious disease needs to be addressed and preparations outlined |

| MITIGATION ACTION DETAILS | |
|--|-----------------------------|
| Hazard(s) Addressed: | Infectious Disease |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$10,000 |
| Potential Funding Sources: | GBRA plant operation budget |
| Lead Agency/Department Responsible: | GBRA Safety Committee |
| Implementation Schedule: | 2011 |

SECTION 21: NEW ACTIONS

| GBRA - 12 | |
|-------------------------------|--|
| Proposed Action: | Facilitate employee training relative to infectious diseases |
| BACKGROUND INFORMATION | |
| Site and Location: | GBRA operates several wastewater treatment plants throughout the Basin |
| History of Damages: | Employees that work with wastewater have the potential to be exposed to diseases caused by pathogens in untreated or treated wastewater. |

| MITIGATION ACTION DETAILS | |
|--|------------------------------|
| Hazard(s) Addressed: | Infectious Disease |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$10,000 |
| Potential Funding Sources: | GBRA plant operations budget |
| Lead Agency/Department Responsible: | Operations Manager |
| Implementation Schedule: | 2011 |

SECTION 21: NEW ACTIONS

| GBRA - 13 | |
|-------------------------------|--|
| Proposed Action: | Provide program to offer tetanus and annual flu shots to GBRA employees |
| BACKGROUND INFORMATION | |
| Site and Location: | GBRA employees that work with wastewater have the potential to be exposed to diseases caused by pathogens in wastewater. |
| History of Damages: | |

| MITIGATION ACTION DETAILS | |
|--|------------------------------|
| Hazard(s) Addressed: | Infectious Disease |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$10,000 |
| Potential Funding Sources: | GBRA plant operation budgets |
| Lead Agency/Department Responsible: | GBRA Safety Committee |
| Implementation Schedule: | 2011 |

SECTION 21: NEW ACTIONS

| GBRA - 14 | |
|-------------------------------|--|
| Proposed Action: | Acquire and install additional cameras and intrusion alarms at the hydro dams and at critical facilities in the basin |
| BACKGROUND INFORMATION | |
| Site and Location: | GBRA owns and operates 6 low head hydroelectric plants. |
| History of Damages: | These 6 facilities could possibly be a target of terrorism. |

| MITIGATION ACTION DETAILS | |
|--|----------------------------|
| Hazard(s) Addressed: | Terrorism |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$500,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | GBRA Hydroelectric Manager |
| Implementation Schedule: | 2016 |

SECTION 21: NEW ACTIONS

| GBRA - 15 | |
|-------------------------------|--|
| Proposed Action: | Harden security at critical wells and water treatment and delivery systems in the basin |
| BACKGROUND INFORMATION | |
| Site and Location: | GBRA operates several water treatment plants. Both water treatment and delivery systems are potential targets of terrorists. |
| History of Damages: | Potential targets for terrorism exist in the Basin |

| MITIGATION ACTION DETAILS | |
|--|-------------------------|
| Hazard(s) Addressed: | Terrorism |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$20,000 |
| Potential Funding Sources: | Plant operation budgets |
| Lead Agency/Department Responsible: | Operations Manager |
| Implementation Schedule: | 2014 |

SECTION 21: NEW ACTIONS

| GBRA - 16 | |
|-------------------------------|--|
| Proposed Action: | Update security policy accordingly and maintain GBRA's Security Committee |
| BACKGROUND INFORMATION | |
| Site and Location: | GBRA has developed a security policy under the direction of a security committee made up of representatives of each GBRA division/operation. |
| History of Damages: | Potential security risks exist at various GBRA sites |

| MITIGATION ACTION DETAILS | |
|--|--------------------------|
| Hazard(s) Addressed: | Terrorism |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$2,000 annually |
| Potential Funding Sources: | GBRA operational budgets |
| Lead Agency/Department Responsible: | Staff |
| Implementation Schedule: | 2010 |

SECTION 21: NEW ACTIONS

| GBRA - 17 | |
|-------------------------------|--|
| Proposed Action: | Upgrade lightening protection equipment and critical equipment at all GBRA facilities |
| BACKGROUND INFORMATION | |
| Site and Location: | All GBRA facilities |
| History of Damages: | Lightning from severe thunderstorms can result in major electronic damage to water and wastewater plants. A plant can be out of commission for several days. |

| MITIGATION ACTION DETAILS | |
|--|---------------------------------|
| Hazard(s) Addressed: | Thunderstorm |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$300,000 |
| Potential Funding Sources: | Grants, plant operating budgets |
| Lead Agency/Department Responsible: | Operations Manager |
| Implementation Schedule: | 2015 |

SECTION 21: NEW ACTIONS

| GBRA - 18 | |
|-------------------------------|--|
| Proposed Action: | Install emergency generator hook-ups at GBRA critical facilities and install quick-connect hookups at all GBRA facilities to accept a mobile generator. |
| BACKGROUND INFORMATION | |
| Site and Location: | Water and wastewater plants can be placed out of commission by high winds or lightning strikes. GBRA has mobile emergency generator but can be difficult to install during a rain event. Need to purchase additional mobile generators |
| History of Damages: | Lightning strikes and other weather events pose a threat to loss of power |

| MITIGATION ACTION DETAILS | |
|--|---------------------------------|
| Hazard(s) Addressed: | Thunderstorm |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$100,000 |
| Potential Funding Sources: | Grants, plant operating budgets |
| Lead Agency/Department Responsible: | Operations Manager |
| Implementation Schedule: | 2013 |

SECTION 21: NEW ACTIONS

| GBRA - 19 | |
|-------------------------------|---|
| Proposed Action: | Add back-up SCADA control room at alternate locations in the basin |
| BACKGROUND INFORMATION | |
| Site and Location: | Hydroelectric room is the central point for all river flow information. |
| History of Damages: | Damage may occur if no back-up equipment during tornado events |

| MITIGATION ACTION DETAILS | |
|--|----------------|
| Hazard(s) Addressed: | Tornado |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$300,000 |
| Potential Funding Sources: | Grant |
| Lead Agency/Department Responsible: | Hydro Division |
| Implementation Schedule: | 2015 |

SECTION 21: NEW ACTIONS

GBRA - 20

| | |
|-------------------------------|---|
| Proposed Action: | Develop a delta model for the lower basin area |
| BACKGROUND INFORMATION | |
| Site and Location: | The Guadalupe Delta has experienced change in flow patterns and wildlife habitat over the last 60 – 70 years. |
| History of Damages: | Lower basin area model needed to accurately assess changes in wildlife and flow patterns |

| MITIGATION ACTION DETAILS | |
|--|---------------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1,200,000 |
| Potential Funding Sources: | Grants, bonds, operating budget |
| Lead Agency/Department Responsible: | Engineering |
| Implementation Schedule: | 2015 |

SECTION 21: NEW ACTIONS

| GBRA - 21 | |
|-------------------------------|---|
| Proposed Action: | Improve the Dam Failure (Breach) Model for Dunlap, McQueeney, TP4 and Nolte Dams in the Basin in order to strengthen dam structure so that it will pass Probable Maximum Flood (PMF) |
| BACKGROUND INFORMATION | |
| Site and Location: | Four low head hydroelectric dams constructed in the 1920's within Guadalupe County |
| History of Damages: | Although there have been no previous occurrences of breach, this is a needed property protection action. An improved Dam Breach Model will provide a better understanding of possible areas of inundation |

| MITIGATION ACTION DETAILS | |
|--|--------------------------|
| Hazard(s) Addressed: | Dam Failure |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$150,000 |
| Potential Funding Sources: | Grants, operating budget |
| Lead Agency/Department Responsible: | Hydro Electric Division |
| Implementation Schedule: | 2015 |

SECTION 21: NEW ACTIONS

GBRA - 22

| | |
|-------------------------------|---|
| Proposed Action: | Develop detailed Dam Failure (Breach) Model for the H4 and H5 Dams in the Basin in order to harden the dam structure so that it will pass PMF. |
| BACKGROUND INFORMATION | |
| Site and Location: | Two low head hydroelectric dams constructed in the 1920's within Gonzales County upstream of City of Gonzales |
| History of Damages: | Although there have been no previous occurrences of breach, this is a needed property protection action will provide a better understanding of possible areas of inundation. The older dam structure needs to be strengthened, but a model must be developed first. |

| MITIGATION ACTION DETAILS | |
|--|--------------------------|
| Hazard(s) Addressed: | Dam Failure |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$150,000 |
| Potential Funding Sources: | Grants, operating budget |
| Lead Agency/Department Responsible: | Hydro Electric Division |
| Implementation Schedule: | 2016 |

SECTION 21: NEW ACTIONS

| GBRA - 23 | |
|-------------------------------|---|
| Proposed Action: | Improve communication with GBRA staff and County EMC's regarding Emergency Action Plan for Dam Failure and Safety |
| BACKGROUND INFORMATION | |
| Site and Location: | Basin-Wide |
| History of Damages: | There have been no previous occurrences, which is why this awareness action has been developed. |

| MITIGATION ACTION DETAILS | |
|--|-------------------------|
| Hazard(s) Addressed: | Dam Failure |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | Operating Budget |
| Lead Agency/Department Responsible: | Hydro Electric Division |
| Implementation Schedule: | Upon Plan approval |

SECTION 21: NEW ACTIONS

Caldwell County

| Caldwell County - 1 | |
|-------------------------------|--|
| Proposed Action: | Develop xeriscaping/drought education program to promote water conservation. Pamphlets and other informational materials will be placed in prominent locations such as county courthouse |
| BACKGROUND INFORMATION | |
| Site and Location: | Unincorporated areas of county |
| History of Damages: | Area prone to drought conditions and extreme heat |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Drought |
| Effect on new/existing buildings: | Less water used may reduce utilities for residential and commercial structures |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | Local funds |
| Lead Agency/Department Responsible: | County EMC |
| Implementation Schedule: | 2011 |

SECTION 21: NEW ACTIONS

| Caldwell County-2 (NFIP) | |
|---------------------------------|--|
| Proposed Action: | Install warning signs at low water crossings |
| BACKGROUND INFORMATION | |
| Site and Location: | All of Caldwell County roads subject to flooding. |
| History of Damages: | Caldwell County has many county roads that are subject to flooding causing areas to be isolated. Since 1998, 5 people have lost their lives in Caldwell County because of high water in roads. |

| MITIGATION ACTION DETAILS | |
|--|-----------------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | NA |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Approx. \$20,000 per installation |
| Potential Funding Sources: | County Budget/FEMA grants |
| Lead Agency/Department Responsible: | Unit Road |
| Implementation Schedule: | Ongoing |

SECTION 21: NEW ACTIONS

| Caldwell County – 3 | |
|-------------------------------|---|
| Proposed Action: | Purchase and install portable generator and quick-connect emergency generator hookups for critical facilities in the event of flooding or other weather events |
| BACKGROUND INFORMATION | |
| Site and Location: | County Emergency Operations Center (EOC), And County Health office. |
| History of Damages: | At present, the County EOC does not have emergency power. This generator will provide emergency power to both EOC and the county health office. |

| MITIGATION ACTION DETAILS | |
|--|-------------------------|
| Hazard(s) Addressed: | Tornado |
| Effect on new/existing buildings: | Provide emergency power |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$65,000.00 |
| Potential Funding Sources: | Grant |
| Lead Agency/Department Responsible: | Emergency Management |
| Implementation Schedule: | June 2011 |

SECTION 21: NEW ACTIONS

| Caldwell County - 4 | |
|-------------------------------|---|
| Proposed Action: | Develop a Community Wildfire Protection Plan (CWPP) |
| BACKGROUND INFORMATION | |
| Site and Location: | All of Caldwell County. |
| History of Damages: | Caldwell County is starting to experience new population growth in the rural areas. New subdivisions are being planned without regard to the possibility of wildfire occurring in or around these subdivisions. Planning is needed to educate developers and residents of the danger of wildfire. |

| MITIGATION ACTION DETAILS | |
|--|--------------------------|
| Hazard(s) Addressed: | Wildfire |
| Effect on new/existing buildings: | Protection from wildfire |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1200.00 |
| Potential Funding Sources: | County Budget |
| Lead Agency/Department Responsible: | Emergency Management |
| Implementation Schedule: | August, 2011 |

SECTION 21: NEW ACTIONS

| Caldwell County - 5 | |
|-------------------------------|--|
| Proposed Action: | Develop a vegetation management plan for those areas outside the city limits and in extra-territorial jurisdiction that may be subject to damage from wildfire |
| BACKGROUND INFORMATION | |
| Site and Location: | Countywide |
| History of Damages: | No current plan to address threat of wildland fire to property and residents |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Drought |
| Effect on new/existing buildings: | Reduce loss of structures from wildfire |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$10-20,000 |
| Potential Funding Sources: | Grants and matching revenue funds |
| Lead Agency/Department Responsible: | County, EMC |
| Implementation Schedule: | 2012 |

SECTION 21: NEW ACTIONS

| Caldwell County – 6 (NFIP) | |
|-----------------------------------|---|
| Proposed Action: | Develop public awareness program to promote “Turn Around Don’t Drown” |
| BACKGROUND INFORMATION | |
| Site and Location: | Countywide |
| History of Damages: | Public Education and Awareness. Reduce loss of lives at low-water crossings in the County |

| MITIGATION ACTION DETAILS | |
|--|-----------------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To Be Determined |
| Potential Funding Sources: | Grants and matching revenue funds |
| Lead Agency/Department Responsible: | County, EMC |
| Implementation Schedule: | 2012 |

SECTION 21: NEW ACTIONS

City of Lockhart

| Lockhart - 1 | |
|-------------------------------|---|
| Proposed Action: | Obtain funding for building or retrofitting existing public buildings for shelters to house residents during severe weather events or disasters; obtain use agreements, publicize their locations, purchase signage, and fund associated legal fees |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide |
| History of Damages: | Currently no safe shelters are identified for residents in the event of severe weather or disaster |

| MITIGATION ACTION DETAILS | |
|--|---------|
| Hazard(s) Addressed: | Hail |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$5,000 |
| Potential Funding Sources: | Local |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | 2011 |

SECTION 21: NEW ACTIONS

| Lockhart - 2 | |
|-------------------------------|--|
| Proposed Action: | Develop a vegetation management plan for those areas identified in the city limits and in extra-territorial jurisdiction that may be subject to damage from wildfire |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide |
| History of Damages: | No current plan to address threat of wildland fire to property and residents |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Drought |
| Effect on new/existing buildings: | Reduce potential loss of lives and property |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$10-20,000 |
| Potential Funding Sources: | Grants and matching revenue funds |
| Lead Agency/Department Responsible: | City of Lockhart |
| Implementation Schedule: | 2012 |

SECTION 21: NEW ACTIONS

| Lockhart – 3 (NFIP) | |
|-------------------------------|---|
| Proposed Action: | Implement public awareness program and purchase NOAA weather radios for critical infrastructure locations including places of work, recreation, worship, schools, regarding dangers of flooding and low water crossings |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide |
| History of Damages: | Public Awareness and Education. Early warning during periods of severe weather a sensitive nature and essential to continued operation for city and local residents. |

| MITIGATION ACTION DETAILS | |
|--|-----------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$1,000-1500 |
| Potential Funding Sources: | General Revenue |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | 2011 |

SECTION 21: NEW ACTIONS

| Lockhart – 4 (NFIP) | |
|-------------------------------|--|
| Proposed Action: | Develop an action plan related to the compliance with the National Flood Insurance Program (NFIP) in terms of permitting, inspections and record keeping |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide |
| History of Damages: | There is a need to identify procedures to address compliance with the NFIP |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Reduce potential flooding of structures |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$750-1,000 |
| Potential Funding Sources: | General Revenue |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | 2011 |

SECTION 21: NEW ACTIONS

| Lockhart – 5 (NFIP) | |
|-------------------------------|---|
| Proposed Action: | Track building improvements and repairs to maintain adequate records for the purpose of inspection and permitting in compliance with the flood ordinance. |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide |
| History of Damages: | Compliance with the flood ordinance involves adequate record-keeping to maintain compliance. |

| MITIGATION ACTION DETAILS | |
|--|-----------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$750-1,000 |
| Potential Funding Sources: | General Revenue |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | Ongoing |

SECTION 21: NEW ACTIONS

City of Luling

| Luling – 1 (NFIP) | |
|-------------------------------|---|
| Proposed Action: | Implement public awareness program and purchase NOAA weather radios for critical infrastructure locations including places of work, recreation, worship, schools, regarding dangers of flooding and low water crossings |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide |
| History of Damages: | Early warning during periods of severe weather is essential to continued operation for city and local residents. |

| MITIGATION ACTION DETAILS | |
|--|-----------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$1,000-1500 |
| Potential Funding Sources: | General Revenue |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | 2011 |

SECTION 21: NEW ACTIONS

| Luling - 2 | |
|-------------------------------|---|
| Proposed Action: | Develop a wildfire recovery plan for those areas outside the city limits and in extra-territorial jurisdiction that may be subject to damage from wildfire |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide |
| History of Damages: | No current plan to address recovery from wildland fire to property and residents |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Drought / Wildfire |
| Effect on new/existing buildings: | Reduce potential loss of structures by wildfire |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$5-10,000 |
| Potential Funding Sources: | Grants and matching revenue funds |
| Lead Agency/Department Responsible: | County, EMC |
| Implementation Schedule: | 2012 |

SECTION 21: NEW ACTIONS

| Luling – 3 (NFIP) | |
|-------------------------------|---|
| Proposed Action: | Preserve records to verify permitting in compliance with the National Flood Insurance Program (NFIP). |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide |
| History of Damages: | There is a need to identify procedures to address compliance with the NFIP |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Reduce potential flooding of structures |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$500 |
| Potential Funding Sources: | General Revenue |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | Ongoing |

SECTION 21: NEW ACTIONS

| Luling - 4 | |
|-------------------------------|--|
| Proposed Action: | Develop an evacuation plan for areas in extra-territorial jurisdiction subject to damage from wildfire |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide |
| History of Damages: | No current evacuation plan to address threat of wildland fire for residents |

| MITIGATION ACTION DETAILS | |
|--|-----------------------------------|
| Hazard(s) Addressed: | Drought / Wildfire |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$5,000-10,000 |
| Potential Funding Sources: | Grants and matching revenue funds |
| Lead Agency/Department Responsible: | County, EMC |
| Implementation Schedule: | 2012 |

SECTION 21: NEW ACTIONS

Luling - 5

| | |
|-------------------------------|---|
| Proposed Action: | Stabilize dam structure at Zedler Mill Dam along San Marcos River |
| BACKGROUND INFORMATION | |
| Site and Location: | Zedler Mill Dam |
| History of Damages: | Structural Protection |

| | |
|--|-----------------------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Dam Failure |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1.5 Mil |
| Potential Funding Sources: | Grants and matching revenue funds |
| Lead Agency/Department Responsible: | County, EMC |
| Implementation Schedule: | Upon Funding |

SECTION 21: NEW ACTIONS

| Luling - 6 | |
|-------------------------------|---|
| Proposed Action: | Purchase and install hazard weather/early warning system to alert residents in event of severe weather and disaster |
| BACKGROUND INFORMATION | |
| Site and Location: | At sites to be determined |
| History of Damages: | City has two working sirens at Fire Station and S. Magnolia Avenue. City boundaries have expanded with numerous annexations and not all areas are covered by warning system |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Severe Thunderstorm, Tornado, Wildfire, hail, flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$100,000 |
| Potential Funding Sources: | Grants and matching revenue funds |
| Lead Agency/Department Responsible: | County, EMC |
| Implementation Schedule: | 2012 or Upon funding |

SECTION 21: NEW ACTIONS

City of Martindale

| Martindale – 1 | |
|-------------------------------|--|
| Proposed Action: | Design, Engineering, and installation of drainage utility infrastructure where none currently exist |
| BACKGROUND INFORMATION | |
| Site and Location: | City Wide |
| History of Damages: | There are several areas in town where storm water runoff creates flooding hazards as well as damage to infrastructure. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Prevent damage to both new and existing structures |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Unknown |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Martindale |
| Implementation Schedule: | Unknown |

SECTION 21: NEW ACTIONS

Martindale – 2

| | |
|-------------------------------|---|
| Proposed Action: | Create a drainage utility plan to minimize or reduce the impact of storm water runoff throughout the city. |
| BACKGROUND INFORMATION | |
| Site and Location: | City Wide |
| History of Damages: | There are several locations in the city that hold water creating hazardous driving conditions as well as damage to infrastructure, especially the roadway. The city is also conscientious of the need for planning to ensure new development does not increase the risk to existing houses. |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Prevent flooding and damage to both existing and new building and structures. |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Unknown |
| Potential Funding Sources: | Grants/drainage fees |
| Lead Agency/Department Responsible: | City of Martindale |
| Implementation Schedule: | 2010-2011. The City is working on a master plan in conjunction with LCRA and Texas State University with this as a component. |

SECTION 21: NEW ACTIONS

| Martindale - 3 | |
|-------------------------------|---|
| Proposed Action: | Establish a wildfire management plan for the City of Martindale. |
| BACKGROUND INFORMATION | |
| Site and Location: | City wide |
| History of Damages: | We have had several small fires along the roadways and much larger ones in parts of the county. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Wildfire |
| Effect on new/existing buildings: | Prevent damage from wildfire to both existing and new buildings. |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Unknown |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Martindale |
| Implementation Schedule: | Upon funding |

SECTION 21: NEW ACTIONS

City of Nixon

| Nixon - 1 | |
|-------------------------------|---|
| Proposed Action: | Educate the public on extreme heat/drought safety and health issues by distributing flyers and information via numerous sources and public postings |
| BACKGROUND INFORMATION | |
| Site and Location: | City wide |
| History of Damages: | Extreme heat can pose problems for elderly and those that work outdoors |

| MITIGATION ACTION DETAILS | |
|--|--------------|
| Hazard(s) Addressed: | Extreme Heat |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | Local funds |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | 2011 |

SECTION 21: NEW ACTIONS

| Nixon - 2 | |
|-------------------------------|--|
| Proposed Action: | Develop xeriscaping/drought education program to promote water conservation. Pamphlets and other informational materials will be placed in prominent locations such as City Hall |
| BACKGROUND INFORMATION | |
| Site and Location: | City wide |
| History of Damages: | Area prone to drought conditions and extreme heat |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Drought |
| Effect on new/existing buildings: | Less water used may reduce utilities for residential and commercial structures |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | Local funds |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | 2011 |

SECTION 21: NEW ACTIONS

City of Nixon - 3

| | |
|-------------------------------|--|
| Proposed Action: | Contribute to establishment of a countywide GIS Computer tracking and plotting program for tracking flood information, Hazmat release incidents, Evacuation, oil and gas pipelines, and locating all Fire Hydrants in the County for the use of the 6 Volunteer Fire Departments in the County. |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide |
| History of Damages: | There have been several incidents of Hazmat Releases of Ammonia transported on Union Pacific R.R. Tracks which cross the northern section of the County. This is an extreme danger to residents countywide. Approx. 85% of all Hazardous Materials coming from Houston are transported on these tracks, and along Interstate 10 and other major highways through the county. |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Hazardous Materials Release |
| Effect on new/existing buildings: | Locating and tracking disaster events may increase warning time thereby reducing damage to structures |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$10,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Emergency Management Office, local officials |
| Implementation Schedule: | 2011 and as funded |

SECTION 21: NEW ACTIONS

Calhoun County

| Calhoun County – 1 (NFIP) | |
|----------------------------------|---|
| Proposed Action: | Promote NFIP flood insurance, public awareness, by printing and distributing brochures on the dangers of floods, storm surge and river flooding. |
| BACKGROUND INFORMATION | |
| Site and Location: | Calhoun County |
| History of Damages: | Our county is on the coast and has the potential of flooding from excessive rain, storm surge and river flooding. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Reduce potential flooding to structures by increasing citizen awareness for protecting property |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$20,000 |
| Potential Funding Sources: | Grant and local funds |
| Lead Agency/Department Responsible: | Emergency Mgmt. |
| Implementation Schedule: | 2011 |

SECTION 21: NEW ACTIONS

| Calhoun County - 2 | |
|-------------------------------|---|
| Proposed Action: | Protect, enhance and restore wetland area in Port Alto area with Geo-tubes, mats or other mitigation mechanisms to reduce erosion |
| BACKGROUND INFORMATION | |
| Site and Location: | Port Alto Beach Area-Precinct #3 |
| History of Damages: | Erosion |

| MITIGATION ACTION DETAILS | |
|--|-------------------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Mitigate erosion of area structures |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$500,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Commissioner Precinct #3 |
| Implementation Schedule: | 2011-2013 |

SECTION 21: NEW ACTIONS

| Calhoun County - 3 | |
|-------------------------------|---|
| Proposed Action: | Develop and implement an all hazards warning system to reach all areas of the county. System would notify residents in the event of various disasters including flooding, hurricane, and tornado. |
| BACKGROUND INFORMATION | |
| Site and Location: | All areas of Calhoun County |
| History of Damages: | Calhoun County is on the coast and vulnerable to numerous hazards. (hurricanes, floods, high winds, hazmat etc) |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Hurricane |
| Effect on new/existing buildings: | Protect new/existing structures with more warning time |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$250,000 approx. |
| Potential Funding Sources: | Local, State, Grants |
| Lead Agency/Department Responsible: | Emergency Management |
| Implementation Schedule: | TBD |

SECTION 21: NEW ACTIONS

| Calhoun County - 4 | |
|-------------------------------|---|
| Proposed Action: | Elevate and upgrade Ocean Drive (first of phased project) |
| BACKGROUND INFORMATION | |
| Site and Location: | Ocean Drive is located in Precinct #1, Calhoun County. |
| History of Damages: | Flooding of this road has been an ongoing concern for access and evacuations. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$168,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Precinct #1 |
| Implementation Schedule: | Ongoing project to elevate, repair, upgrade this road. |

SECTION 21: NEW ACTIONS

| Calhoun County - 5 | |
|-------------------------------|---|
| Proposed Action: | Upgrade and elevate Ocean Drive (second phased project). |
| BACKGROUND INFORMATION | |
| Site and Location: | Ocean Drive is located in Precinct #1, Calhoun County. |
| History of Damages: | Flooding of this road has been an ongoing concern for access and evacuations of residents and visitors. |

| MITIGATION ACTION DETAILS | |
|--|-------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$360,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Precinct #1 |
| Implementation Schedule: | TBD |

SECTION 21: NEW ACTIONS

| Calhoun County - 6 | |
|-------------------------------|---|
| Proposed Action: | Upgrade public restroom and septic facilities along Magnolia Beach that suffer damage during flood and hurricane events |
| BACKGROUND INFORMATION | |
| Site and Location: | Project is located along Magnolia Beach in Precinct #1, Calhoun County. |
| History of Damages: | Facilities have been damaged during previous severe weather and storm events |

| MITIGATION ACTION DETAILS | |
|--|-------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$270,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Precinct #1 |
| Implementation Schedule: | TBD |

SECTION 21: NEW ACTIONS

| Calhoun County - 7 | |
|-------------------------------|--|
| Proposed Action: | Stabilize Magnolia Beach Boat Ramp Jetty Construction Project |
| BACKGROUND INFORMATION | |
| Site and Location: | Project is located along Magnolia Beach in Precinct #1, Calhoun County. |
| History of Damages: | Jetty prone to erosion and has been weakened by severe storm events, flooding and hurricanes |

| MITIGATION ACTION DETAILS | |
|--|--------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$168,000 |
| Potential Funding Sources: | Grants/Local |
| Lead Agency/Department Responsible: | Precinct #1 |
| Implementation Schedule: | TBD |

SECTION 21: NEW ACTIONS

City of Point Comfort

| Point Comfort – 1 (NFIP) | |
|-------------------------------|--|
| Proposed Action: | Increase capacity by adding storm water and detention basins where needed to reduce flooding, standing water and poor drainage |
| BACKGROUND INFORMATION | |
| Site and Location: | City |
| History of Damages: | Heavy rains cause flooding in City |

| MITIGATION ACTION DETAILS | |
|--|------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | May reduce flooding |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | As funding is received |

SECTION 21: NEW ACTIONS

| Point Comfort – 2 (NFIP) | |
|---------------------------------|---|
| Proposed Action: | Backup public records by creating digital copies and storing offsite in non-SFHA area in order to properly maintain building records for the purposes of regulating permitting in compliance with the NFIP. |
| BACKGROUND INFORMATION | |
| Site and Location: | City hall at 102 Jones Street |
| History of Damages: | Previous storms have caused the roof to leak. Potential for damage to primary storage facility at City Hall |

| MITIGATION ACTION DETAILS | |
|--|------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | As funding is received |

SECTION 21: NEW ACTIONS

Point Comfort – 3

| | |
|-------------------------------|--|
| Proposed Action: | Implement a backup plan for scanning existing hard copy records for permits and other critical documents into digital format |
| BACKGROUND INFORMATION | |
| Site and Location: | City hall at 102 Jones Street |
| History of Damages: | Previous storms have caused the roof to leak. Potential for damage to primary storage facility at City Hall |

| | |
|--|------------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Hurricane |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | As funding is received |

SECTION 21: NEW ACTIONS

Point Comfort – 4

| | |
|-------------------------------|---|
| Proposed Action: | Develop incentive program to encourage installation of porous surface pavement in lieu of impervious pavement for development/renovation construction projects. |
| BACKGROUND INFORMATION | |
| Site and Location: | Pease Street |
| History of Damages: | Heavy rains cause Pease Street to become flooded. Standing water erodes pavement and is costly for street repairs and continuous improvement. |

| | |
|--|------------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | As funding is received |

SECTION 21: NEW ACTIONS

City of Port Lavaca

| Port Lavaca - 1 | |
|-------------------------------|---|
| Proposed Action: | Construct a “safe” multi-purpose building for citizens and employees of Port Lavaca to be used in the event of disaster. Building will be multi-purpose serving as Public Works facility, Emergency Operations Center, and Training Facility. |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Port Lavaca Public Works |
| History of Damages: | In cases of emergencies the citizens of Port Lavaca do not have a safe place to go for refuge. The new building will be used to help out the citizens with a safe and secure place to seek help and shelter in case of emergencies. |

| MITIGATION ACTION DETAILS | |
|--|----------------------------|
| Hazard(s) Addressed: | Tornado |
| Effect on new/existing buildings: | Protect lives and property |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$750,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Public Works |
| Implementation Schedule: | 2012 |

SECTION 21: NEW ACTIONS

| Port Lavaca – 2 (NFIP) | |
|-------------------------------|---|
| Proposed Action: | Develop and implement an NFIP hazard awareness program for residents including promoting flood insurance, elevating structures and improvements, removing debris and unused building materials from residential properties in SFHAs |
| BACKGROUND INFORMATION | |
| Site and Location: | City wide |
| History of Damages: | Citizens are not consistently made aware, pre-event and through local media, of steps to take to protect themselves against potential damages of weather events, disaster events and air-quality hazards |

| MITIGATION ACTION DETAILS | |
|--|---------------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$10,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Port Lavaca |
| Implementation Schedule: | 2013 |

SECTION 21: NEW ACTIONS

| Port Lavaca - 3 | |
|-------------------------------|---|
| Proposed Action: | Implement program to remove debris and trees for Lynn Bayou drainage areas on ongoing basis |
| BACKGROUND INFORMATION | |
| Site and Location: | City wide |
| History of Damages: | Debris in drainage ditches and drainage areas inhibits the drainage of floodwaters, causing excessive flooding and back-ups |

| MITIGATION ACTION DETAILS | |
|--|---------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on New/Existing Buildings | Reduce potential flooding |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$100,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Port Lavaca |
| Implementation Schedule: | 2013 |

SECTION 21: NEW ACTIONS

| Port Lavaca - 4 | |
|-------------------------------|--|
| Proposed Action: | Install an early warning system to notify residents of impending disasters including hurricane, flooding, tornado |
| BACKGROUND INFORMATION | |
| Site and Location: | City wide |
| History of Damages: | The City has no effective, consistent warning system to notify residents of impending hurricanes, floods, thunderstorms, and other hazards |

| MITIGATION ACTION DETAILS | |
|--|---------------------|
| Hazard(s) Addressed: | Hurricane |
| Effect on New/Existing Buildings | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$50,000 approx |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City of Port Lavaca |
| Implementation Schedule: | 2013 |

SECTION 21: NEW ACTIONS

City of Seadrift

| Seadrift – 1 | |
|-------------------------------|--|
| Proposed Action: | Raise/replace bay avenue bridge over heron slough above BFE and Flood Proof Supports with concrete surface and pilings and supports |
| BACKGROUND INFORMATION | |
| Site and Location: | 200 West Bay Avenue Seadrift, Texas |
| History of Damages: | Hurricane Carla 1961: Bridge washed out and crashed into residential structure, destroying both. Bridge was replaced with almost identical construction and materials (wood) |

| MITIGATION ACTION DETAILS | |
|--|-----------------------------|
| Hazard(s) Addressed: | Hurricane |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | HIGH |
| Estimated Cost: | \$400,000 |
| Potential Funding Sources: | Federal/State, Grants, etc. |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | 2015 |

SECTION 21: NEW ACTIONS

| Seadrift – 2 | |
|-------------------------------|---|
| Proposed Action: | Strengthen Building Codes incorporating Texas windstorm construction amendments/supplements along with requiring manufactured home tie downs and requiring Wind Zone II & III rated manufactured housing on new installations within the city. Also tightened up on elevation certificate requirements in 100 year flood plain. |
| BACKGROUND INFORMATION | |
| Site and Location: | City Wide |
| History of Damages: | Hurricane Carla 1961: Widespread wind & flood damage Hurricane Claudette 2003: Wind damage |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Hurricane |
| Effect on new/existing buildings: | Reduce impact to all structures from hurricane |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1,000 |
| Potential Funding Sources: | None |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | 2010: completed October 2009 |

SECTION 21: NEW ACTIONS

Seadrift – 3

| | |
|-------------------------------|--|
| Proposed Action: | Hire a building inspector capable of performing windstorm inspections and certifications. This requires an engineer, certified by the Texas Department of Insurance. |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide |
| History of Damages: | Proximity to Texas coast warrants additional personnel to enforce codes and ordinances |

| | |
|--|---------------------------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$20,000 annually |
| Potential Funding Sources: | Federal/State match for first 2 years |
| Lead Agency/Department Responsible: | CITY |
| Implementation Schedule: | 2015 |

SECTION 21: NEW ACTIONS

| Seadrift - 4 | |
|-------------------------------|--|
| Proposed Action: | Develop drought contingency plans outlining actions to take at varying levels of drought or water supply interruptions requiring restricted water use. |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide |
| History of Damages: | NONE |

| MITIGATION ACTION DETAILS | |
|--|---------------------------------|
| Hazard(s) Addressed: | Drought |
| Effect on new/existing buildings: | None |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$5,000 |
| Potential Funding Sources: | Federal Planning/State Planning |
| Lead Agency/Department Responsible: | CITY |
| Implementation Schedule: | 2014 |

SECTION 21: NEW ACTIONS

| Seadrift – 5 | |
|-------------------------------|---|
| Proposed Action: | Implement/Create Disaster Recovery Operations Center (DROC) to assist/implement disaster recovery after a disaster in the local area. Need to allocate space in with kitchen/shower space in existing civic center, adding an emergency generator so that emergency personnel have a place to rest/sleep during disaster recovery. |
| BACKGROUND INFORMATION | |
| Site and Location: | Civic Center/City Hall |
| History of Damages: | <p>Hurricane Carla 1961: Wide spread damage, no electricity or city utilities for several weeks.</p> <p>Hurricane Claudette 2003: Some damage, no electricity for almost a week.</p> <p>Hurricane Ike 2008: Sea wall damage, no electricity for about 6 hours</p> |

| MITIGATION ACTION DETAILS | |
|--|----------------------|
| Hazard(s) Addressed: | Hurricane |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$100,000 |
| Potential Funding Sources: | FEDERAL/STATE GRANTS |
| Lead Agency/Department Responsible: | CITY |
| Implementation Schedule: | 2015 |

SECTION 21: NEW ACTIONS

| Seadrift – 6 | |
|-------------------------------|---|
| Proposed Action: | Construct concrete block structure/control room at waste water treatment plant to replace vulnerable portable bldg to assist with continuity of service operations in event of disaster. |
| BACKGROUND INFORMATION | |
| Site and Location: | 101 S. Orange |
| History of Damages: | Hurricane Carla 1961: Structures destroyed by wind and flood, but plant itself was unharmed except by flood water intrusion. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Tornado |
| Effect on new/existing buildings: | Ensure continuation of wastewater operations for structures citywide |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$60,000 |
| Potential Funding Sources: | Federal Grants |
| Lead Agency/Department Responsible: | CITY |
| Implementation Schedule: | 2015 |

SECTION 21: NEW ACTIONS

| Seadrift – 7 | |
|-------------------------------|---|
| Proposed Action: | Construct new water treatment/production building with concrete block structure to weatherproof and vermin proof. Current structure is metal with severe metal rust and corrosion. |
| BACKGROUND INFORMATION | |
| Site and Location: | 103 East Dallas Seadrift, Texas |
| History of Damages: | None – Yet |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Hurricane |
| Effect on new/existing buildings: | Ensure continuation of utility operations citywide |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$100,000 |
| Potential Funding Sources: | Federal/grants etc. |
| Lead Agency/Department Responsible: | CITY |
| Implementation Schedule: | 2016 |

SECTION 21: NEW ACTIONS

| Seadrift - 8 | |
|-------------------------------|---|
| Proposed Action: | Extend existing seawall 300 feet eastward from 3rd Street to Heron Slough |
| BACKGROUND INFORMATION | |
| Site and Location: | 200 Block of West Bay Avenue Seadrift, Texas |
| History of Damages: | This section of seawall has gone without protection from erosion forever. Existing seawall was terminated at 3 rd Street. Hurricane Carla 1961: Area washed out and contributed to the destruction of the bridge that destroyed a residential structure. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Increase protection of structures affected by surge and flooding |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1,000,000 |
| Potential Funding Sources: | Federal/grants |
| Lead Agency/Department Responsible: | CITY |
| Implementation Schedule: | 2016 |

SECTION 21: NEW ACTIONS

| Seadrift - 9 | |
|-------------------------------|---|
| Proposed Action: | Extend existing seawall approximately 900 feet westward from approximately 12 th Street, incorporating drainage that flows down 14 th Street to the bay and incorporating and preserving shoreline and wetland areas. |
| BACKGROUND INFORMATION | |
| Site and Location: | Between 12 th and 15 th Streets Seadrift, Texas |
| History of Damages: | Hurricane Carla 1961: Area eroded severely causing upland flooding and existing seawall ended at around 12 th Street. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Hurricane |
| Effect on new/existing buildings: | Reduce eroded streets, flooding to area streets, structures |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$3,000,000 |
| Potential Funding Sources: | Federal/grants |
| Lead Agency/Department Responsible: | CITY |
| Implementation Schedule: | 2020 |

SECTION 21: NEW ACTIONS

| Seadrift – 10 (NFIP) | |
|-------------------------------|---|
| Proposed Action: | Improve and upgrade drainage of the Bayside Subdivision area constructed about 1952 down Saint Louis Avenue eastward to 9 th Street drainage route. Distance of 4 blocks from 13 th to 9 th . |
| BACKGROUND INFORMATION | |
| Site and Location: | Between 9 th and 13 th Streets along West Saint Louis Seadrift, Texas |
| History of Damages: | This area suffered severe flooding following Hurricane Beulah due to poor drainage that had deteriorated since construction in 1952 using surface drainage. More recently during heavy rains in 2006 and most recently during Hurricane Alex and Hermine in 2010. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Each flood brings structures closer to flooding |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$750,000 |
| Potential Funding Sources: | Federal/grants |
| Lead Agency/Department Responsible: | CITY |
| Implementation Schedule: | 2015 |

SECTION 21: NEW ACTIONS

| Seadrift – 11 (NFIP) | |
|-------------------------------|--|
| Proposed Action: | Improve drainage and acquire property along Railroad Street down and parallel to old Railroad Right of Way southward all the way to this drainage's outlet at the bay near the harbor. Property acquisition would include drainage easements to allow maintenance and upkeep and to restrict construction in this area. |
| BACKGROUND INFORMATION | |
| Site and Location: | Beginning at East Washington Ave southward along Pine Street to the harbor passing over Bay Avenue. This was previously railroad right of way and the rail company maintained the drainage until the property was sold to private owners. The city has acquired drainage easement down to Washington Avenue, but due to private interests have not been able to acquire or negotiate the drainage right of way |
| History of Damages: | This is in line with the harbor and any hurricane drives water through this path. The overgrown nature of these two blocks of drainage severely restricts water flow and is now causing upland flooding along Railroad Avenue southward, with the bottleneck south of Washington Avenue to the Bay. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | If development is allowed to continue without drainage easements, flooding will result. |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$300,000 |
| Potential Funding Sources: | Federal/grants |
| Lead Agency/Department Responsible: | CITY |
| Implementation Schedule: | 2015 |

SECTION 21: NEW ACTIONS

DeWitt County Drainage District

| DeWitt County Drainage District – 1 | |
|--|---|
| Proposed Action: | Construct and install a basket drop structure and reconstruct drainage channels to control flooding and erosion throughout county and increase conveyance of floodwaters |
| BACKGROUND INFORMATION | |
| Site and Location: | DeWitt County locations |
| History of Damages: | The county is a “C” repetitive loss county with 17 losses since September 2003. During major flood events or storms flooding is severe. Major flood events occurred in 1981, 1994, and 1998. Additional flood events occurred in 2002, 2004. The drainage district is in proximity to the Gulf Coast, and flood events are frequent in conjunction with hurricanes and formation of associated storm systems. |

| MITIGATION ACTION DETAILS | |
|--|---------------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1-\$3 Million |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | DeWitt County drainage district |
| Implementation Schedule: | 2 years from receipt of funds |

SECTION 21: NEW ACTIONS

| DeWitt County Drainage District - 2 | |
|--|--|
| Proposed Action: | Install a public warning reverse 911 system to increase citizen response to disasters |
| BACKGROUND INFORMATION | |
| Site and Location: | Countywide |
| History of Damages: | DeWitt County experiences floods and hurricane and warning system would enable faster evacuation and warning to citizens |

| MITIGATION ACTION DETAILS | |
|--|---------------------------------|
| Hazard(s) Addressed: | Hurricane |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$20,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | DeWitt County drainage district |
| Implementation Schedule: | 2 years from receipt of funds |

SECTION 21: NEW ACTIONS

DeWitt County

| DeWitt County – 1 | |
|-------------------------------|---|
| Proposed Action: | Construct and install a basket drop structure and reconstruct drainage channels to control flooding and erosion throughout county and increase conveyance of floodwaters |
| BACKGROUND INFORMATION | |
| Site and Location: | DeWitt County locations |
| History of Damages: | The county is a “C” repetitive loss county with 17 losses since September 2003. During major flood events or storms flooding is severe. Major flood events occurred in 1981, 1994, and 1998. Additional flood events occurred in 2002, 2004. The drainage district is in proximity to the Gulf Coast, and flood events are frequent in conjunction with hurricanes and formation of associated storm systems. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1-\$3 Million |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | DeWitt County drainage district/DeWitt County |
| Implementation Schedule: | 2 years from receipt of funds |

SECTION 21: NEW ACTIONS

| DeWitt County - 2 | |
|-------------------------------|--|
| Proposed Action: | Install a public warning reverse 911 system to increase citizen response to disasters |
| BACKGROUND INFORMATION | |
| Site and Location: | Countywide |
| History of Damages: | DeWitt County experiences floods and hurricane and warning system would enable faster evacuation and warning to citizens |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Hurricane |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$20,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | DeWitt County drainage district/DeWitt County |
| Implementation Schedule: | 2 years from receipt of funds |

SECTION 21: NEW ACTIONS

| DeWitt County -3 | |
|-------------------------------|---|
| Proposed Action: | Purchase generator for alternative Emergency Operations Center in the event floodwaters knock down power lines and electric service is suspended |
| BACKGROUND INFORMATION | |
| Site and Location: | DeWitt County courthouse at 115 N. Gonzales St, Cuero, TX |
| History of Damages: | Primary EOC was out of service during renovation of county jail. Alternate EOC would have been activated if necessary but there is no backup power. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$5,000/partial funding if purchased by county |
| Potential Funding Sources: | Grant |
| Lead Agency/Department Responsible: | DeWitt Co. EMC |
| Implementation Schedule: | 1 years from receipt of grant funds |

SECTION 21: NEW ACTIONS

| DeWitt County -4 (NFIP) | |
|--------------------------------|--|
| Proposed Action: | Develop hydraulic modeling of rivers and creeks as technical partner in updating FEMA flood maps |
| BACKGROUND INFORMATION | |
| Site and Location: | County wide |
| History of Damages: | Better flood maps are needed to map major and minor flooding areas countywide |

| MITIGATION ACTION DETAILS | |
|--|-------------------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grant |
| Lead Agency/Department Responsible: | DeWitt Co. EMC |
| Implementation Schedule: | 2 years from receipt of grant funds |

SECTION 21: NEW ACTIONS

| DeWitt County - 5 | |
|-------------------------------|--|
| Proposed Action: | Develop an emergency action plan in the event of area dam failure |
| BACKGROUND INFORMATION | |
| Site and Location: | Two dams/flood retention structures north of Cuero off of Hwy. 183 in county |
| History of Damages: | The county has experienced many major floods; dam failure would cause major flooding |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Dam Failure |
| Effect on new/existing buildings: | Reduce flooding to structures if dam failed |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | DeWitt County |
| Implementation Schedule: | Two years from funding |

SECTION 21: NEW ACTIONS

| DeWitt County – 6 (NFIP) | |
|---------------------------------|---|
| Proposed Action: | Purchase and install signs prohibiting dumping in streams, ditches, waterways, and floodplain areas. Dumping in waterways may cause overbank flooding and minor flooding of adjacent structures and residences |
| BACKGROUND INFORMATION | |
| Site and Location: | Various locations throughout county |
| History of Damages: | The county has flooding problems which are exacerbated by dumping debris, garbage and building materials in waterways |

| MITIGATION ACTION DETAILS | |
|--|------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | DeWitt County |
| Implementation Schedule: | Two years from funding |

SECTION 21: NEW ACTIONS

DeWitt County – 7

| | |
|-------------------------------|---|
| Proposed Action: | Implement program to identify sites where additional stream and flood gauges need to be added or upgraded. Coordinate installation requests with county jurisdictions as needed |
| BACKGROUND INFORMATION | |
| Site and Location: | Various locations throughout county |
| History of Damages: | The county has experienced many floods due to heavy local rains in low lying areas on numerous county roads and waterways. In 1998 floodwaters reached Cuero 2 days before the predicted arrival. Had gauges been in place citizens would have been warned and evacuated earlier and prepared property and livestock for flooding |

| MITIGATION ACTION DETAILS | |
|--|------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | DeWitt County |
| Implementation Schedule: | Two years from funding |

SECTION 21: NEW ACTIONS

DeWitt County – 8

| | |
|-------------------------------|---|
| Proposed Action: | Install flood gauges on Sandies Creek |
| BACKGROUND INFORMATION | |
| Site and Location: | Sandies Creek at Westhoff Cheapside Road, Catholic Church Lane at low water crossing at Hartman Road in county |
| History of Damages: | The county has experienced many floods due to heavy local rains in low lying areas on numerous county roads and waterways |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Reduce flooding due to expanded warning time |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | DeWitt County |
| Implementation Schedule: | Two years from funding |

SECTION 21: NEW ACTIONS

| DeWitt County – 9 (NFIP) | |
|---------------------------------|---|
| Proposed Action: | Construct new road to provide additional access into single entry area to prevent residents from being trapped during a flood event and reasonably safe from flooding |
| BACKGROUND INFORMATION | |
| Site and Location: | Catholic Church Lane in northern portion of the county |
| History of Damages: | This area has experienced many floods and access and egress is restricted from 3-7 days until water recedes due to flooding and backup of flood waters from Guadalupe River. Road has been closed 3 times in 2010 thus far. Road erodes and has to be replaced; rail cars become obstructed with debris putting crossing in jeopardy of complete failure. |

| MITIGATION ACTION DETAILS | |
|--|------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | DeWitt County |
| Implementation Schedule: | Two years from funding |

SECTION 21: NEW ACTIONS

| DeWitt County – 10 | |
|-------------------------------|---|
| Proposed Action: | Implement program for removing debris and log jams from bridges, increasing conveyance of floodwaters |
| BACKGROUND INFORMATION | |
| Site and Location: | Thomaston River Road at Guadalupe River Bridge in county |
| History of Damages: | This area has had frequent major floods |

| MITIGATION ACTION DETAILS | |
|--|------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | DeWitt County |
| Implementation Schedule: | Two years from funding |

SECTION 21: NEW ACTIONS

| DeWitt County - 11 | |
|-------------------------------|--|
| Proposed Action: | Develop erosion protection program for erosion prone areas of county |
| BACKGROUND INFORMATION | |
| Site and Location: | Thomaston River Road at Guadalupe River Bridge and other sites in county |
| History of Damages: | This area has had frequent major floods |

| MITIGATION ACTION DETAILS | |
|--|------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | DeWitt County |
| Implementation Schedule: | Two years from funding |

SECTION 21: NEW ACTIONS

| DeWitt County - 12 | |
|-------------------------------|---|
| Proposed Action: | Place guard rails on Hebron Church Road Bridge to prevent vehicles from being swept into waterway |
| BACKGROUND INFORMATION | |
| Site and Location: | North of FM 682 at Hebron Community |
| History of Damages: | Driving across bridge in severe weather extremely dangerous as there are no guard rails and vehicles can potentially be swept off during floods or hurricanes |

| MITIGATION ACTION DETAILS | |
|--|-----------------------------------|
| Hazard(s) Addressed: | Hurricane |
| Effect on new/existing buildings: | None |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$4,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | County Commissioner, Pct. 2 |
| Implementation Schedule: | Two years from receipt of funding |

SECTION 21: NEW ACTIONS

City of Cuero

| Cuero -1 | |
|-------------------------------|--|
| Proposed Action: | Construct and install basket drop structure and reconstruct drainage channels to control flooding and erosion |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide |
| History of Damages: | Major flooding has and continues to occur in and around Cuero. With community's proximity to the Gulf Coast flood events are frequent due to hurricane and formation of associated storm events. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Partial funding of \$1-\$3 Mil. Estimated countywide |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | DeWitt Co. Drainage District #1, local officials |
| Implementation Schedule: | 2 years from receipt of grant funds |

SECTION 21: NEW ACTIONS

Cuero -2

| | |
|-------------------------------|--|
| Proposed Action: | Install public warning system (reverse 911) |
| BACKGROUND INFORMATION | |
| Site and Location: | DeWitt Co. EOC |
| History of Damages: | Countywide system to include Cuero would benefit warning time for residents in event of flooding and hurricanes. |

| MITIGATION ACTION DETAILS | |
|--|-------------------------------------|
| Hazard(s) Addressed: | Hurricane |
| Effect on new/existing buildings: | None |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$20,000 |
| Potential Funding Sources: | Grant |
| Lead Agency/Department Responsible: | DeWitt Co. EMC |
| Implementation Schedule: | 2 years from receipt of grant funds |

SECTION 21: NEW ACTIONS

Cuero -3

| | |
|-------------------------------|--|
| Proposed Action: | Install public warning system (reverse 911) |
| BACKGROUND INFORMATION | |
| Site and Location: | DeWitt Co. EOC |
| History of Damages: | Countywide system to include Cuero would benefit warning time for residents in event of flooding and hurricanes. |

| MITIGATION ACTION DETAILS | |
|--|-------------------------------------|
| Hazard(s) Addressed: | Hurricane |
| Effect on new/existing buildings: | None |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$20,000 |
| Potential Funding Sources: | Grant |
| Lead Agency/Department Responsible: | DeWitt Co. EMC |
| Implementation Schedule: | 2 years from receipt of grant funds |

SECTION 21: NEW ACTIONS

| Cuero -4 | |
|-------------------------------|---|
| Proposed Action: | Purchase generator for alternative Emergency Operations Center in the event tree limbs and other debris knock down power lines during winter storm events |
| BACKGROUND INFORMATION | |
| Site and Location: | DeWitt County courthouse at 115 N. Gonzales St, Cuero, TX |
| History of Damages: | Primary EOC was out of service during renovation of county jail. Alternate EOC would have been activated if necessary but there is no backup power. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Severe Winter Storm |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$5,000/partial funding if purchased by county |
| Potential Funding Sources: | Grant |
| Lead Agency/Department Responsible: | DeWitt Co. EMC |
| Implementation Schedule: | 1 years from receipt of grant funds |

SECTION 21: NEW ACTIONS

| Cuero -5 (NFIP) | |
|-------------------------------|---|
| Proposed Action: | Develop hydraulic modeling of rivers and creeks as technical partner in updating FEMA flood maps |
| BACKGROUND INFORMATION | |
| Site and Location: | City wide |
| History of Damages: | Better flood maps are needed to map major and minor flooding areas in Yorktown, Cuero, and countywide |

| MITIGATION ACTION DETAILS | |
|--|-------------------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grant |
| Lead Agency/Department Responsible: | DeWitt Co. EMC |
| Implementation Schedule: | 2 years from receipt of grant funds |

SECTION 21: NEW ACTIONS

| Cuero -6 (NFIP) | |
|-------------------------------|--|
| Proposed Action: | Improve drainage under S. Esplanade from 1-200 Blk. W. Hamilton across S. Esplanade. Run a drain south to drainage ditch, widen ditch and bridge culvert at Stockdale St. to allow for larger ditch. |
| BACKGROUND INFORMATION | |
| Site and Location: | <ol style="list-style-type: none"> 1. W. Hamilton under S. Esplanade (183) 2. E. Hamilton to S. Gonzales St. 3. S. Gonzales or enlarge present bridge 4. S. on Gonzales to drainage ditch 5. Drainage ditch to Stockdale 6. Enlarge culvert bridge @S. Stockdale |
| History of Damages: | Each time the Guadalupe River overflows it backs up this small drainage ditch under the highway and floods into the housing area on west side of S. Esplanade. As it reaches Cuero the drainage ditch rises and flooding occurs. |

| MITIGATION ACTION DETAILS | |
|--|------------------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Reduce flooding of area structures |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$300,000 |
| Potential Funding Sources: | Grant |
| Lead Agency/Department Responsible: | City of Cuero |
| Implementation Schedule: | Upon receipt of grant funds |

SECTION 21: NEW ACTIONS

City of Nordheim

| Nordheim - 1 | |
|-------------------------------|--|
| Proposed Action: | Develop xeriscaping/drought education program to promote water conservation. Pamphlets and other informational materials will be placed in prominent locations such as City Hall |
| BACKGROUND INFORMATION | |
| Site and Location: | City wide |
| History of Damages: | Area prone to drought conditions and extreme heat |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Drought |
| Effect on new/existing buildings: | Less water used may reduce utilities for residential and commercial structures |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | Local funds |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | 2011 |

SECTION 21: NEW ACTIONS

| Nordheim - 2 | |
|-------------------------------|---|
| Proposed Action: | Educate the public on extreme heat/drought safety and health issues |
| BACKGROUND INFORMATION | |
| Site and Location: | City wide |
| History of Damages: | Extreme heat can pose problems for the elderly and those that work outdoors |

| MITIGATION ACTION DETAILS | |
|--|--------------|
| Hazard(s) Addressed: | Extreme Heat |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | Local funds |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | 2011 |

SECTION 21: NEW ACTIONS

City of Yoakum

| Yoakum – 1 (NFIP) | |
|-------------------------------|--|
| Proposed Action: | Develop detailed engineering study to support mitigation project to reduce urban flooding along Kennedy flood control channel. |
| BACKGROUND INFORMATION | |
| Site and Location: | Kennedy Street drainage structure from Waco St. to the City limits. |
| History of Damages: | Infrastructure damage and damage to private property during periods of heavy rainfall. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Reduce flood water damage to area structures |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$15,000.00 |
| Potential Funding Sources: | FEMA pre-disaster mitigation grants. |
| Lead Agency/Department Responsible: | City Director of Public Works |
| Implementation Schedule: | 2013 |

SECTION 21: NEW ACTIONS

| Yoakum – 2 | |
|-------------------------------|---|
| Proposed Action: | Develop engineering study to support mitigation project to reduce urban flooding along Koether St. #2 in the High School area |
| BACKGROUND INFORMATION | |
| Site and Location: | Koether St. #2 from Goldman St. to Brushy Creek. |
| History of Damages: | Infrastructure damage and damage to private property during periods of heavy rainfall. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Reduce flood water damage to area structures |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$30,000.00 |
| Potential Funding Sources: | FEMA pre-disaster mitigation grants. |
| Lead Agency/Department Responsible: | City Director of Public Works |
| Implementation Schedule: | 2013 |

SECTION 21: NEW ACTIONS

| Yoakum - 3 | |
|-------------------------------|--|
| Proposed Action: | Develop detailed engineering study to support mitigation project to address urban flooding for Brushy Creek drainage from Hwy 77a to the wastewater plant. |
| BACKGROUND INFORMATION | |
| Site and Location: | Brushy Creek natural drainage from the crossing @ Hwy 77a along the City limits to the transfer station and wastewater plant. |
| History of Damages: | Property Protection. Infrastructure damage and damage to private property during periods of heavy rainfall and flooding. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Reduce flood water damage to area structures |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$60,000.00 |
| Potential Funding Sources: | FEMA pre-disaster mitigation grants. |
| Lead Agency/Department Responsible: | City Director of Public Works |
| Implementation Schedule: | 2013 |

SECTION 21: NEW ACTIONS

| Yoakum - 4 | |
|-------------------------------|--|
| Proposed Action: | Develop detailed engineering study to support mitigation project to reduce urban flooding for Supple Creek drainage. |
| BACKGROUND INFORMATION | |
| Site and Location: | Supple Creek drainage along North/South St. to N. Park Rd (City Limits). |
| History of Damages: | Property Protection. Infrastructure damage and damage to private property during periods of heavy rainfall. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Reduce flood water damage to area structures |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$30,000.00 |
| Potential Funding Sources: | FEMA pre-disaster mitigation grants. |
| Lead Agency/Department Responsible: | City Director of Public Works |
| Implementation Schedule: | 2013 |

SECTION 21: NEW ACTIONS

| Yoakum - 5 | |
|-------------------------------|---|
| Proposed Action: | Develop detailed engineering study to support mitigation project to reduce urban flooding for Lavaca St., Baxter, Trimmel area. |
| BACKGROUND INFORMATION | |
| Site and Location: | In the Lavaca St., Baxter, Trimmel, area |
| History of Damages: | Property Protection of infrastructure damage and structural damage during periods of heavy rainfall and flooding |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Reduce flood water damage to area structures |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$30,000.00 |
| Potential Funding Sources: | FEMA pre-disaster mitigation grants. |
| Lead Agency/Department Responsible: | City Director of Public Works |
| Implementation Schedule: | 2013 |

SECTION 21: NEW ACTIONS

| Yoakum – 6 (NFIP) | |
|-------------------------------|---|
| Proposed Action: | Install storm water drainage system on Front St. |
| BACKGROUND INFORMATION | |
| Site and Location: | Front St. from W. Gonzales to Hopkins. |
| History of Damages: | Structural Protection. Infrastructure damage and damage to private property during periods of heavy rainfall and flooding |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Reduce flooding to structures along Front St. |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$700,000.00 |
| Potential Funding Sources: | FEMA pre-disaster mitigation grants. |
| Lead Agency/Department Responsible: | City Director of Public Works |
| Implementation Schedule: | 2012 |

SECTION 21: NEW ACTIONS

| Yoakum – 7 (NFIP) | |
|-------------------------------|--|
| Proposed Action: | Implement stormwater project to reduce urban flooding along Kennedy flood control channel based on results of detailed engineering study |
| BACKGROUND INFORMATION | |
| Site and Location: | Kennedy Street drainage structure from Waco St. to the City limits. |
| History of Damages: | Infrastructure damage and damage to private property during periods of heavy rainfall. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Reduce flood water damage to area structures |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | FEMA pre-disaster mitigation grants. |
| Lead Agency/Department Responsible: | City Director of Public Works |
| Implementation Schedule: | 2013 |

SECTION 21: NEW ACTIONS

| Yoakum – 8 | |
|-------------------------------|---|
| Proposed Action: | Implement drainage project to reduce urban flooding along Koether St. #2 in the High School area based on results of detailed engineering study |
| BACKGROUND INFORMATION | |
| Site and Location: | Koether St. #2 from Goldman St. to Brushy Creek. |
| History of Damages: | Infrastructure damage and damage to private property during periods of heavy rainfall. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Reduce flood water damage to area structures |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | FEMA pre-disaster mitigation grants. |
| Lead Agency/Department Responsible: | City Director of Public Works |
| Implementation Schedule: | 2013 |

SECTION 21: NEW ACTIONS

| Yoakum - 9 | |
|-------------------------------|---|
| Proposed Action: | Implement stream channelization for Brushy Creek drainage from Hwy 77a to the wastewater plant based on results of detailed engineering study |
| BACKGROUND INFORMATION | |
| Site and Location: | Brushy Creek natural drainage from the crossing @ Hwy 77a along the City limits to the transfer station and wastewater plant. |
| History of Damages: | Infrastructure damage and damage to private property during periods of heavy rainfall and flooding. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Reduce flood water damage to area structures |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | FEMA pre-disaster mitigation grants. |
| Lead Agency/Department Responsible: | City Director of Public Works |
| Implementation Schedule: | 2013 |

SECTION 21: NEW ACTIONS

| Yoakum - 10 | |
|-------------------------------|--|
| Proposed Action: | Clear ditches as a flood reduction project to reduce urban flooding for Supple Creek drainage based on results of detailed engineering study |
| BACKGROUND INFORMATION | |
| Site and Location: | Supple Creek drainage along North/South St. to N. Park Rd (City Limits). |
| History of Damages: | Infrastructure damage and damage to private property during periods of heavy rainfall. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Reduce flood water damage to area structures |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | FEMA pre-disaster mitigation grants. |
| Lead Agency/Department Responsible: | City Director of Public Works |
| Implementation Schedule: | 2013 |

SECTION 21: NEW ACTIONS

| Yoakum - 11 | |
|-------------------------------|---|
| Proposed Action: | Implement clearing and channelization project based on study to reduce urban flooding for Lavaca St., Baxter, Trimmel, area based on results of detailed engineering study. |
| BACKGROUND INFORMATION | |
| Site and Location: | In the Lavaca St., Baxter, Trimmel area |
| History of Damages: | Property protection to prevent structural damage during periods of heavy rainfall and flooding |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Reduce flood water damage to area structures |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | FEMA pre-disaster mitigation grants. |
| Lead Agency/Department Responsible: | City Director of Public Works |
| Implementation Schedule: | 2013 |

SECTION 21: NEW ACTIONS

| Yoakum – 12 (NFIP) | |
|-------------------------------|---|
| Proposed Action: | Implement public awareness program and purchase NOAA weather radios for critical infrastructure locations including places of work, recreation, worship, schools, regarding dangers of flooding and low water crossings |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide |
| History of Damages: | Early warning during periods of severe weather is essential to continued operation for city and local residents. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$1,000-1500 |
| Potential Funding Sources: | General Revenue/Grants where available |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | 2012-2013 |

SECTION 21: NEW ACTIONS

City of Yorktown

| Yorktown – 1 | |
|-------------------------------|--|
| Proposed Action: | Procure funds to implement removal of large trees along Coleta Creek that currently cause backup of flood and storm water runoff and cause severe upstream flooding |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Yorktown, south of Yorktown on 1 st Street, Coleta Creek to FM 884. |
| History of Damages: | Area has experienced many flood events. During 1998 stormwater runoff due to blocked channels of Coleta Creek caused severe damage to homes and businesses including sewer treatment plan. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Reduce flooding of structures from runoff |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grant funds |
| Lead Agency/Department Responsible: | DeWitt County, City |
| Implementation Schedule: | Two years from receipt of funds. |

SECTION 21: NEW ACTIONS

| Yorktown - 2 | |
|-------------------------------|---|
| Proposed Action: | Install public warning system (reverse 911) |
| BACKGROUND INFORMATION | |
| Site and Location: | DeWitt Co. EOC |
| History of Damages: | Countywide system to include Yorktown would benefit warning time for residents in event of flooding and hurricanes. |

| MITIGATION ACTION DETAILS | |
|--|------------------------------------|
| Hazard(s) Addressed: | Hurricane |
| Effect on new/existing buildings: | None |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$20,000 |
| Potential Funding Sources: | Grant |
| Lead Agency/Department Responsible: | DeWitt County EMC |
| Implementation Schedule: | 2 yrs. From receipt of grant funds |

SECTION 21: NEW ACTIONS

| Yorktown – 3 (NFIP) | |
|-------------------------------|---|
| Proposed Action: | Develop hydraulic modeling of rivers and creeks as technical partner in updating FEMA flood maps |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide floodprone areas |
| History of Damages: | Better flood maps are needed to map major and minor flooding areas in Yorktown, Cuero, and countywide |

| MITIGATION ACTION DETAILS | |
|--|------------------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | None |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grant |
| Lead Agency/Department Responsible: | DeWitt County EMC |
| Implementation Schedule: | 2 yrs. From receipt of grant funds |

SECTION 21: NEW ACTIONS

Gonzales County

| Gonzales County – 1 (NFIP) | |
|-----------------------------------|---|
| Proposed Action: | Implement program to cross train building inspector in NFIP Program and floodplain management requirements |
| BACKGROUND INFORMATION | |
| Site and Location: | Gonzales County |
| History of Damages: | Severe flooding warrants multiple County personnel trained and experienced in County regulations and NFIP Program requirements. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Prevent building in Flood Plain areas and/or minimize risk by building in compliance |
| Priority (High, Moderate, Low): | HIGH |
| Estimated Cost: | \$3.500. |
| Potential Funding Sources: | Grant |
| Lead Agency/Department Responsible: | Gonzales County |
| Implementation Schedule: | ASAP |

SECTION 21: NEW ACTIONS

| Gonzales County - 2 | |
|-------------------------------|--|
| Proposed Action: | Purchase Portable Generators for Shelters and Key Government facilities in case of Power Outage due to falling trees and large limbs. These would be trailer mounted and therefore could be used where needed the most. |
| BACKGROUND INFORMATION | |
| Site and Location: | Shelters in Gonzales County and County Court House. These would furnish necessary power in case of an emergency. |
| History of Damages: | Power failure during storms and after Hurricanes due to lots of lines down. There is no emergency power available in the County with the exception of the County Jail and Hospital. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Hurricane |
| Effect on new/existing buildings: | Furnish Power for lights and necessary accessories. |
| Priority (High, Moderate, Low): | HIGH |
| Estimated Cost: | \$150,000. |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Gonzales County Emergency Management |
| Implementation Schedule: | ASAP |

SECTION 21: NEW ACTIONS

Gonzales County - 3

| | |
|-------------------------------|--|
| Proposed Action: | Establish a County Wide monitoring system for flooding on local streams and rivers. Install stream monitors at strategic points in and around the County to monitor any rises in stream activity. Also Rain Gauges strategically located to monitor rain fall with a central point to collect this info. |
| BACKGROUND INFORMATION | |
| Site and Location: | Countywide |
| History of Damages: | Stream activities in the past have flooded large sections of the county. Also there has been wide spread flooding caused by river flooding. The Guadalupe river has flooded most of the county in the past. |

| MITIGATION ACTION DETAILS | |
|--|--------------------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$15,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Gonzales County Emergency Management |
| Implementation Schedule: | ASAP Threat is there every day |

SECTION 21: NEW ACTIONS

| Gonzales County - 4 | |
|-------------------------------|--|
| Proposed Action: | Purchase Portable Generators for Shelters and Key Government facilities in case of Power Outage due to falling trees and large limbs. These would be trailer mounted and therefore could be used where needed the most. |
| BACKGROUND INFORMATION | |
| Site and Location: | Shelters in Gonzales County and County Court House. These would furnish necessary power in case of an emergency. |
| History of Damages: | Power failure during storms and after Hurricanes due to lots of lines down. There is no emergency power available in the County with the exception of the County Jail and Hospital. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Hurricane |
| Effect on new/existing buildings: | Furnish Power for lights and necessary accessories. |
| Priority (High, Moderate, Low): | HIGH |
| Estimated Cost: | \$150,000. |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Gonzales County Emergency Management |
| Implementation Schedule: | ASAP |

SECTION 21: NEW ACTIONS

| Gonzales County - 5 | |
|-------------------------------|--|
| Proposed Action: | Purchase Cascade Air Trailer for Fire and Hazardous Materials Release events. Include Air Compressor and dual fill station. |
| BACKGROUND INFORMATION | |
| Site and Location: | Equipment will serve Gonzales County, incorporated communities and unincorporated areas, 6 county Volunteer Fire Depts. |
| History of Damages: | Currently there is lack of capability to refill air packs in the event of structural fires, train derailment, and hazardous material release. Gonzales County has multiple railroads and major highways including Interstate 10 and Hwy. 183 that pose potential daily threats from these hazards. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Hazardous Materials Release |
| Effect on new/existing buildings: | Mitigate fire damage to structures |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$55,000-\$80,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Gonzales County, Fire Fighter Association |
| Implementation Schedule: | Upon funding |

SECTION 21: NEW ACTIONS

| Gonzales County - 6 | |
|-------------------------------|---|
| Proposed Action: | Install Quick Connects for Emergency Power on Key facilities in Gonzales County in the event of wildfire and utility failure |
| BACKGROUND INFORMATION | |
| Site and Location: | First Baptist Church, First Methodist Church, Gonzales County Court House, Waelder Community Center (Shelter), Nixon Fire Station and 2 other shelters. |
| History of Damages: | Loss of Power during Sheltering of Hurricane Victims and also during other sheltering activities such as flooding and wildfires. |

| MITIGATION ACTION DETAILS | |
|--|--------------------------------------|
| Hazard(s) Addressed: | Wildfire |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$35,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Gonzales County Emergency Management |
| Implementation Schedule: | As soon as possible |

SECTION 21: NEW ACTIONS

| Gonzales County – 7 (NFIP) | |
|-----------------------------------|--|
| Proposed Action: | Install stream monitors at strategic points in and around the County to monitor any rises in stream activity and install rain gauges to monitor rainfall with a central point in order collect more accurate information and issue timely warnings to residents. |
| BACKGROUND INFORMATION | |
| Site and Location: | Countywide |
| History of Damages: | Stream activities in the past have flooded large sections of the county. Also there has been wide spread flooding caused by river flooding. The Guadalupe river has flooded most of the county in the past. |

| MITIGATION ACTION DETAILS | |
|--|--------------------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$15,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Gonzales County Emergency Management |
| Implementation Schedule: | Upon funding |

SECTION 21: NEW ACTIONS

Gonzales County - 8

| | |
|-------------------------------|--|
| Proposed Action: | Establish a GIS Computer tracking and plotting program for the County as a whole for tracking flood information, Hazmat release incidents, Evacuation, Tracking pipelines, Locating all Fire Hydrants in the County for the use of the 6 Volunteer Fire Departments and the vulnerable site in the County. |
| BACKGROUND INFORMATION | |
| Site and Location: | Countywide |
| History of Damages: | There have been several incidents of Hazmat Releases of Ammonia transported on Union Pacific R.R. Tracks which cross the northern section of the County. This is an extreme danger to residents countywide. Approx. 85% of all Hazardous Materials coming from Houston are transported on these tracks, and along Interstate 10 and other major highways through the county. |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Wildfire |
| Effect on new/existing buildings: | Protect structures in the event of disaster |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$25,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Emergency Management Office |
| Implementation Schedule: | 2011 and as funded |

SECTION 21: NEW ACTIONS

City of Gonzales

| City of Gonzales-1 | |
|-------------------------------|--|
| Proposed Action: | Design and build an evacuation center for governmental entities and first responders to use in the event of area disasters. |
| BACKGROUND INFORMATION | |
| Site and Location: | Inside city limits of Gonzales on future site to be designated. |
| History of Damages: | Local flooding, local and County wide and hail, regional hurricanes have caused damages exceeding millions of dollars. |

| MITIGATION ACTION DETAILS | |
|--|----------------------------------|
| Hazard(s) Addressed: | Hurricane |
| Effect on new/existing buildings: | None |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$15-20,000,000 |
| Potential Funding Sources: | Local, State, and Federal |
| Lead Agency/Department Responsible: | City of Gonzales/FEMA |
| Implementation Schedule: | 36 months from securing funding. |

SECTION 21: NEW ACTIONS

City of Gonzales - 2

| | |
|-------------------------------|--|
| Proposed Action: | Contribute to establishment of a countywide GIS Computer tracking and plotting program for tracking flood information, Hazmat release incidents, Evacuation, oil and gas pipelines, and locating all Fire Hydrants in the County for the use of the 6 Volunteer Fire Departments in the County. |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide |
| History of Damages: | There have been several incidents of Hazmat Releases of Ammonia transported on Union Pacific R.R. Tracks which cross the northern section of the County. This is an extreme danger to residents countywide. Approx. 85% of all Hazardous Materials coming from Houston are transported on these tracks, and along Interstate 10 and other major highways through the county. |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Flood / Hazardous Materials Release |
| Effect on new/existing buildings: | Locating and tracking disaster events may increase warning time thereby reducing damage to structures |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$10,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Emergency Management Office, local officials |
| Implementation Schedule: | 2011 and as funded |

SECTION 21: NEW ACTIONS

| City of Gonzales - 3 (NFIP) | |
|------------------------------------|---|
| Proposed Action: | Install stream monitors and rain gauges at strategic points in the city to monitor any rises in stream activity in order to collect accurate information and timely warn residents in the event of a flood. |
| BACKGROUND INFORMATION | |
| Site and Location: | Sites to be determined within City |
| History of Damages: | There has been wide spread flooding caused by river flooding along the Guadalupe river and tributaries. |

| MITIGATION ACTION DETAILS | |
|--|----------------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$15,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City/County Emergency Management |
| Implementation Schedule: | Upon funding |

SECTION 21: NEW ACTIONS

City of Gonzales - 4 (NFIP)

| | |
|-------------------------------|--|
| Proposed Action: | Add rain gauges in strategic locations to monitor rain fall with a central point to collect this info. |
| BACKGROUND INFORMATION | |
| Site and Location: | Sites to be determined within City |
| History of Damages: | Public education and awareness to contribute to flood prevention program |

| MITIGATION ACTION DETAILS | |
|--|--------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$5,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | Upon funding |

SECTION 21: NEW ACTIONS

City of Nixon

| Nixon - 1 | |
|-------------------------------|---|
| Proposed Action: | Educate the public on extreme heat/drought safety and health issues |
| BACKGROUND INFORMATION | |
| Site and Location: | City wide |
| History of Damages: | Extreme heat can pose problems for elderly and those that work outdoors |

| MITIGATION ACTION DETAILS | |
|--|--------------|
| Hazard(s) Addressed: | Extreme Heat |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | Local funds |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | 2011 |

SECTION 21: NEW ACTIONS

| Nixon - 2 | |
|-------------------------------|--|
| Proposed Action: | Develop xeriscaping/drought education program to promote water conservation. Pamphlets and other informational materials will be placed in prominent locations such as City Hall |
| BACKGROUND INFORMATION | |
| Site and Location: | City wide |
| History of Damages: | Area prone to drought conditions and extreme heat |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Drought |
| Effect on new/existing buildings: | Less water used may reduce utilities for residential and commercial structures |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | Local funds |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | 2011 |

SECTION 21: NEW ACTIONS

| Nixon – 3 (NFIP) | |
|-------------------------------|---|
| Proposed Action: | Develop flood insurance and flood awareness education program. Pamphlets and other informational materials will be placed in prominent locations such as City Hall |
| BACKGROUND INFORMATION | |
| Site and Location: | City wide |
| History of Damages: | This action would help alert citizens to the benefits of flood insurance. |

| MITIGATION ACTION DETAILS | |
|--|-------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Low |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | Local funds |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | 2012 |

SECTION 21: NEW ACTIONS

| Nixon – 4 (NFIP) | |
|-------------------------------|---|
| Proposed Action: | Inspect and review permits for new development in compliance with the flood ordinance and NFIP. |
| BACKGROUND INFORMATION | |
| Site and Location: | City wide |
| History of Damages: | The City regulated development through an inspection of permits for compliance with the NFIP. |

| MITIGATION ACTION DETAILS | |
|--|-------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Low |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | Local funds |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | 2012 |

SECTION 21: NEW ACTIONS

City of Waelder

| Waelder -1 | |
|-------------------------------|---|
| Proposed Action: | Upgrade existing public building to serve as temporary shelter during time of natural or man-caused disaster for housing pass-through evacuees, local residents and their pets, and first responders. Supply shelter with non-perishable items including food, medical supplies, water, cots, pillows, blankets, pet carriers, pet food, and a back-up generator. |
| BACKGROUND INFORMATION | |
| Site and Location: | Local public building, community center, school or church to be determined |
| History of Damages: | Currently there is no existing local shelter to house residents, evacuees, first responders and/or pets. |

| MITIGATION ACTION DETAILS | |
|--|----------------------|
| Hazard(s) Addressed: | Hurricane |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Emergency Mgmt, Fire |
| Implementation Schedule: | 2012 |

SECTION 21: NEW ACTIONS

| Waelder -2 | |
|-------------------------------|--|
| Proposed Action: | Contribute to establishment of a countywide GIS Computer tracking and plotting program for tracking Hazmat release incidents, Evacuation, oil and gas pipelines and locating all Fire Hydrants in the County for the use of the 6 Volunteer Fire Departments in the in and around the City |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide |
| History of Damages: | There have been several incidents of Hazmat Releases of Ammonia transported on Union Pacific R.R. Tracks which bisect the center of Waelder. This is an extreme danger to residents of the community. Approx. 85% of all Hazardous Materials coming from Houston are transported on these tracks, and along Interstate 10 and other major highways through the county. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Hazardous Materials Release |
| Effect on new/existing buildings: | Mitigate loss of life and property damage |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$10,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Emergency Mgmt, Fire |
| Implementation Schedule: | 2012 and as funded |

SECTION 21: NEW ACTIONS

| Waelder -3 (NFIP) | |
|-------------------------------|--|
| Proposed Action: | Track and create GIS maps for flood-prone areas including flood-prone structures, high water marks, and other flood data |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide |
| History of Damages: | This action would better inform emergency management to the extent of flood events. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Mitigate loss of life and property damage due to flood |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$10,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Emergency Mgmt, Floodplain Manager |
| Implementation Schedule: | 2012 and as funded |

SECTION 21: NEW ACTIONS

| Waelder - 4 (NFIP) | |
|-------------------------------|--|
| Proposed Action: | Conduct community awareness programs to inform the public about hazards they face and actions they can take to prevent or reduce the loss of life and property. Action includes public notices in local paper for pre- and post-disaster information, brochures for prevention in city hall and other public offices. |
| BACKGROUND INFORMATION | |
| Site and Location: | City wide |
| History of Damages: | An educated citizenry is one of the best ways to protect against disaster. This action will increase community awareness and foster adoption of appropriate hazard mitigation actions. |

| MITIGATION ACTION DETAILS | |
|--|---------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | General Revenue |
| Lead Agency/Department Responsible: | City Administration |
| Implementation Schedule: | 2012, and ongoing |

SECTION 21: NEW ACTIONS

City of Cibolo (Guadalupe County)

| Cibolo - 1 | |
|-------------------------------|--|
| Proposed Action: | Revise and upgrade landscape ordinance to offer flexibility for xeriscaping. |
| BACKGROUND INFORMATION | |
| Site and Location: | City-wide |
| History of Damages: | High water use due to water needs of lawns. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Extreme Heat |
| Effect on new/existing buildings: | Plant shade structures to protect new/existing structures from extreme heat |
| Priority (High, Moderate, Low): | Low |
| Estimated Cost: | varies |
| Potential Funding Sources: | Leverage local funds, grants, impact fees |
| Lead Agency/Department Responsible: | Planning |
| Implementation Schedule: | 2011-2012 |

SECTION 21: NEW ACTIONS

| Cibolo - 2 | |
|-------------------------------|---|
| Proposed Action: | Provide water conservation education and incentives for low-flow plumbing and toilets, efficient washers, rain harvesting. |
| BACKGROUND INFORMATION | |
| Site and Location: | City-wide |
| History of Damages: | High water use due to water needs of household appliances and watering practices. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Drought |
| Effect on new/existing buildings: | None |
| Priority (High, Moderate, Low): | Low |
| Estimated Cost: | varies |
| Potential Funding Sources: | Leverage local funds, grants, impact fees |
| Lead Agency/Department Responsible: | Utilities |
| Implementation Schedule: | 2012-2014 |

SECTION 21: NEW ACTIONS

| Cibolo - 3 | |
|-------------------------------|---|
| Proposed Action: | Initiate public awareness program and Insert flyers in residential and business water bills describing xeriscape planting resources and benefits. |
| BACKGROUND INFORMATION | |
| Site and Location: | City-wide |
| History of Damages: | High water use due to water needs of lawns. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Drought |
| Effect on new/existing buildings: | None |
| Priority (High, Moderate, Low): | moderate |
| Estimated Cost: | varies |
| Potential Funding Sources: | Leverage local funds, grants, impact fees |
| Lead Agency/Department Responsible: | Utilities |
| Implementation Schedule: | 2011-2012 |

SECTION 21: NEW ACTIONS

| Cibolo - 4 | |
|-------------------------------|---|
| Proposed Action: | Incorporate cooling features in public areas such as water misters or fountains in parks and plazas that offer respite from the heat but also conserve water. |
| BACKGROUND INFORMATION | |
| Site and Location: | City-wide |
| History of Damages: | Area experiences drought and extreme heat periodically. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Extreme Heat |
| Effect on new/existing buildings: | None |
| Priority (High, Moderate, Low): | Low |
| Estimated Cost: | varies |
| Potential Funding Sources: | Leverage local funds, grants, impact fees |
| Lead Agency/Department Responsible: | Public Works |
| Implementation Schedule: | 2012-2014 |

SECTION 21: NEW ACTIONS

| Cibolo - 5 | |
|-------------------------------|--|
| Proposed Action: | Educate the public on extreme heat/drought safety and health issues. |
| BACKGROUND INFORMATION | |
| Site and Location: | City-wide |
| History of Damages: | Would reduce hospital visits and possibly death due to heat stroke and heat-related illness. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Extreme Heat |
| Effect on new/existing buildings: | None |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | varies |
| Potential Funding Sources: | Leverage local funds, grants, impact fees |
| Lead Agency/Department Responsible: | Public Works |
| Implementation Schedule: | 2011-2014 |

SECTION 21: NEW ACTIONS

| Cibolo - 6 | |
|-------------------------------|--|
| Proposed Action: | Increase tree planting in public right of ways to reduce urban heat levels. |
| BACKGROUND INFORMATION | |
| Site and Location: | City-wide |
| History of Damages: | Urban heating effect is due to heat absorption properties of cement and asphalt and lack of evapotranspiration due to lack of or limited vegetation. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Extreme Heat |
| Effect on new/existing buildings: | None |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | varies |
| Potential Funding Sources: | Leverage local funds, grants, impact fees |
| Lead Agency/Department Responsible: | Public Works |
| Implementation Schedule: | 2011-2012 |

SECTION 21: NEW ACTIONS

| Cibolo – 7 (NFIP) | |
|-------------------------------|---|
| Proposed Action: | Acquire ROW along Town Creek to provide conveyance for the ultimate conditions events to meet or exceed NFIP compliance regulations |
| BACKGROUND INFORMATION | |
| Site and Location: | Land bordering Town Creek |
| History of Damages: | Flood damage to existing building along Town Creek. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Low |
| Estimated Cost: | varies |
| Potential Funding Sources: | Leverage local funds, grants, impact fees |
| Lead Agency/Department Responsible: | Public Works |
| Implementation Schedule: | 2010-2014 |

SECTION 21: NEW ACTIONS

| Cibolo – 8 (NFIP) | |
|-------------------------------|---|
| Proposed Action: | Construct localized drainage improvements in Cibolo Old Town to provide a minimum 10-year level of service |
| BACKGROUND INFORMATION | |
| Site and Location: | Cibolo Old Town |
| History of Damages: | Homes and businesses flood in a 2-year event due to poor drainage. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Leverage local funds, grants, impact fees |
| Lead Agency/Department Responsible: | Public Works |
| Implementation Schedule: | 2010-2012 |

SECTION 21: NEW ACTIONS

| Cibolo - 9 | |
|-------------------------------|--|
| Proposed Action: | Upgrade EM radio communications to use same radio technologies so Cibolo can communicate with surrounding communities and other first responders during emergencies and severe weather events |
| BACKGROUND INFORMATION | |
| Site and Location: | City of Cibolo |
| History of Damages: | History of trouble communicating because of different technologies. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Thunderstorm |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$100,000-\$250,000 |
| Potential Funding Sources: | Leverage local funds, grants, impact fees |
| Lead Agency/Department Responsible: | Fire, Police, and EMS |
| Implementation Schedule: | 2010-2011 |

SECTION 21: NEW ACTIONS

| Cibolo – 10 (NFIP) | |
|-------------------------------|---|
| Proposed Action: | Upgrade Road Crossing of Town Creek at Green Valley Rd to provide clear conveyance of the 1% annual event. |
| BACKGROUND INFORMATION | |
| Site and Location: | Green Valley Rd and Town Creek |
| History of Damages: | History of water over-topping road cutting off key transportation corridor. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | None |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Leverages local funds, grants, impact fees |
| Lead Agency/Department Responsible: | Public Works |
| Implementation Schedule: | 2012-2014 |

SECTION 21: NEW ACTIONS

| Cibolo – 11 | |
|-------------------------------|--|
| Proposed Action: | Install low water crossing safety features at low water crossings, specifically at Haeckerville Rd and Schaeffer Rd. |
| BACKGROUND INFORMATION | |
| Site and Location: | Low water crossings at Haeckerville Rd and Schaeffer Rd. |
| History of Damages: | History of water overtopping these locations in frequent storms. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | None |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be Determined |
| Potential Funding Sources: | Leveraged local funds, grants, impact fees |
| Lead Agency/Department Responsible: | Public Works |
| Implementation Schedule: | 2011-2012 |

SECTION 21: NEW ACTIONS

| Cibolo – 12 (NFIP) | |
|-------------------------------|---|
| Proposed Action: | Create a GIS map of National Flood Insurance Program policies, claims and losses, including repetitive losses. |
| BACKGROUND INFORMATION | |
| Site and Location: | City-wide |
| History of Damages: | City has history of NFIP claims, particularly in certain areas prone to flooding. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Leveraged city funds, grants, impact fees |
| Lead Agency/Department Responsible: | Public Works |
| Implementation Schedule: | 2011-2012 |

SECTION 21: NEW ACTIONS

| Cibolo – 13 (NFIP) | |
|-------------------------------|---|
| Proposed Action: | Develop a voluntary acquisition and relocation fund that can be used to purchase properties at risk in a 4% chance or higher event, and convert them to open space. |
| BACKGROUND INFORMATION | |
| Site and Location: | Properties surrounding creeks and streams, especially Town Creek, that are at risk of flooding. |
| History of Damages: | Mobile and single-family houses in the areas adjacent to Town Creek flood frequently. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Reduce flooding to single-family and mobile homes in these areas by removing structures |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$850,000 |
| Potential Funding Sources: | Leveraged local funds, grants, impact fees |
| Lead Agency/Department Responsible: | Planning |
| Implementation Schedule: | 2010-2015 |

SECTION 21: NEW ACTIONS

Cibolo – 14

| | |
|-------------------------------|---|
| Proposed Action: | Construct regional detention facility downstream of FM 1103 and upstream of FM 78 to mitigate for the 4% ultimate event. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town Creek between FM 1103 and FM 78 |
| History of Damages: | This area experiences severe flooding even in frequent storm events. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Existing buildings will experience reduced risk due to flooding. |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$6.3 Million |
| Potential Funding Sources: | Leverage local funds, grants, impact fees |
| Lead Agency/Department Responsible: | Public Works |
| Implementation Schedule: | 2010-2011 |

SECTION 21: NEW ACTIONS

Cibola – 15

| | |
|-------------------------------|---|
| Proposed Action: | Implement retrofits of existing stormwater detention facilities to more effectively utilize volume in more frequent events. |
| BACKGROUND INFORMATION | |
| Site and Location: | Various stormwater detention facilities constructed as part of residential drainage plans throughout the city. |
| History of Damages: | While these detention facilities were designed to actuate in the 1% event, they completely fail at detaining floodwaters in more frequent events. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Will reduce flooding to new and existing buildings |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Leverage local funds, grants, impact fees |
| Lead Agency/Department Responsible: | Public Works |
| Implementation Schedule: | 2010-2011 |

SECTION 21: NEW ACTIONS

Cibola – 16

| | |
|-------------------------------|--|
| Proposed Action: | Acquire easements and ROW, and construct drainage improvements to serve the Schneider Industrial Park. |
| BACKGROUND INFORMATION | |
| Site and Location: | Schneider Industrial Park |
| History of Damages: | Inadequate drainage causes minor problems such as standing water, erosion of streets |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Leverage local funds, grants, impact fees |
| Lead Agency/Department Responsible: | Public Works |
| Implementation Schedule: | 2011-2013 |

SECTION 21: NEW ACTIONS

| Cibolo – 17 | |
|-------------------------------|---|
| Proposed Action: | Introduce stream flow gauges and rainfall gauges to Town Creek and creeks in the watershed. |
| BACKGROUND INFORMATION | |
| Site and Location: | Town Creek and creeks in the watershed. |
| History of Damages: | Information obtained from these gauges is vital to further study of the creek and its flood levels. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Low |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Leveraged local funds, grants, impact fees |
| Lead Agency/Department Responsible: | Public Works |
| Implementation Schedule: | 2011-2014 |

SECTION 21: NEW ACTIONS

Cibolo – 18

| | |
|-------------------------------|---|
| Proposed Action: | Construct regional detention facility at Tolle Rd |
| BACKGROUND INFORMATION | |
| Site and Location: | Tolle Rd. |
| History of Damages: | Reduce flooding potential of structures in vicinity of detention facility |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$3.1 Million |
| Potential Funding Sources: | Leverage local funds, grants, impact fees |
| Lead Agency/Department Responsible: | Public Works |
| Implementation Schedule: | 2012-2014 |

SECTION 21: NEW ACTIONS

Cibolo – 19

| | |
|-------------------------------|---|
| Proposed Action: | Improve the crossing at Weidner Rd and Town Creek Tributary No. 1 to at least a 25-year level of service. |
| BACKGROUND INFORMATION | |
| Site and Location: | Weidner Rd and Town Creek Tributary No. 1. |
| History of Damages: | Water overtops road in high frequency events. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | None |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Leverage local funds, grants, impact fees |
| Lead Agency/Department Responsible: | Public Works |
| Implementation Schedule: | 2011-2013 |

SECTION 21: NEW ACTIONS

Kendall County

| Kendall County - 1 | |
|-------------------------------|--|
| Proposed Action: | Implement FireWise Community Program for County |
| BACKGROUND INFORMATION | |
| Site and Location: | Countywide with emphasis on subdivisions, and areas close to city limits |
| History of Damages: | County has experienced an increase in large wildfires in areas that threaten homes |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Wildfire |
| Effect on new/existing buildings: | Reduce losses to homes and businesses through awareness and implementation of firewise actions |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | Minimum |
| Potential Funding Sources: | Grants, Budget, Tx. Forest Service, National Firewise Program |
| Lead Agency/Department Responsible: | Fire Dept., Fire Marshall |

SECTION 21: NEW ACTIONS

| Kendall County - 2 | |
|-------------------------------|--|
| Proposed Action: | Purchase and place hazardous warning signs and auto barricades at low water crossings |
| BACKGROUND INFORMATION | |
| Site and Location: | Low water crossings throughout county |
| History of Damages: | County experiences several flash floods yearly. Citizens routinely drive into floodwaters requiring rescue. Three deaths have occurred in previous years at these areas. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | High |
| Potential Funding Sources: | Grants, Budget, and other Program |
| Lead Agency/Department Responsible: | Road and Bridge, Commissioner's court, Emergency Mgmt |
| Implementation Schedule: | 2011 and continuing |

SECTION 21: NEW ACTIONS

| Kendall County - 3 | |
|-------------------------------|---|
| Proposed Action: | Continue to expand and improve county's communications network to include 7 channel trunked system to facilitate communication between responders |
| BACKGROUND INFORMATION | |
| Site and Location: | Countywide |
| History of Damages: | Inoperable issues need to be addressed. |

| MITIGATION ACTION DETAILS | |
|--|-----------------------------|
| Hazard(s) Addressed: | Wildfire |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$800,000.00 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Emergency Mgmt/EMS/Fire/Law |
| Implementation Schedule: | 2011 and continuing |

SECTION 21: NEW ACTIONS

| Kendall County – 4 | |
|-------------------------------|--|
| Proposed Action: | Implement storm water drainage improvements in Comfort, TX |
| BACKGROUND INFORMATION | |
| Site and Location: | Vicinity of 3 rd and Main St. and surrounding area outside Comfort |
| History of Damages: | Comfort Tx experiences flash floods annually and as a result of development the storm runoff backs up into the township causing flooding of streets and homes in low lying areas |

| MITIGATION ACTION DETAILS | |
|--|----------------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$350,000 |
| Potential Funding Sources: | Grants, Budget |
| Lead Agency/Department Responsible: | Road and Bridge, county engineer |
| Implementation Schedule: | 2011 and continuing |

SECTION 21: NEW ACTIONS

| Kendall County - 5 | |
|-------------------------------|---|
| Proposed Action: | Upgrade existing flood warning signage and barricades with signs meeting or exceeding new reflectivity requirements of the Manual on Uniform traffic Control Devices, (2009) Sec. 2 |
| BACKGROUND INFORMATION | |
| Site and Location: | Multiple low water crossings throughout the county |
| History of Damages: | Kendall County has several flash floods annually. Several deaths have occurred due to individuals driving into low water crossings with numerous rescues and close calls |

| MITIGATION ACTION DETAILS | |
|--|----------------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$25,000 |
| Potential Funding Sources: | Grants, Budget |
| Lead Agency/Department Responsible: | Road and Bridge, county engineer |
| Implementation Schedule: | 2011 and continuing |

SECTION 21: NEW ACTIONS

| Kendall County - 6 | |
|-------------------------------|--|
| Proposed Action: | Place Advanced Warning System at low water crossings |
| BACKGROUND INFORMATION | |
| Site and Location: | Multiple low water crossings throughout the county |
| History of Damages: | Kendall County has several flash floods annually. Several deaths have occurred due to individuals driving into low water crossings with numerous rescues and close calls |

| MITIGATION ACTION DETAILS | |
|--|----------------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$25,000 |
| Potential Funding Sources: | Grants, Budget |
| Lead Agency/Department Responsible: | Road and Bridge, county engineer |
| Implementation Schedule: | 2011 and continuing |

SECTION 21: NEW ACTIONS

| Kendall Co - 7 (NFIP) | |
|-------------------------------|--|
| Proposed Action: | Seek FEMA grants to mitigate flood damage, pursue buyouts and restore infrastructure after severe flooding and flood damage occurs. |
| BACKGROUND INFORMATION | |
| Site and Location: | Countywide |
| History of Damages: | County is subject to sudden high intensity rainfall events. Grant assistance is necessary to provide mitigation programs as stated above |

| MITIGATION ACTION DETAILS | |
|--|---------------------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Reduce or eliminate flooding |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | Unknown |
| Potential Funding Sources: | Grants, |
| Lead Agency/Department Responsible: | Floodplain Administrator, EMC |
| Implementation Schedule: | As funding and following flood events |

SECTION 21: NEW ACTIONS

City of Boerne

| Boerne - 1 | |
|-------------------------------|--|
| Proposed Action: | Implement FireWise Community Program for the City |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide with emphasis on subdivisions |
| History of Damages: | City has experienced an increase in large wildfires in areas that threaten homes |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Wildfire |
| Effect on new/existing buildings: | Reduce losses to homes and businesses through awareness and implementation of firewise actions |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | Minimum |
| Potential Funding Sources: | Grants, Budget, Tx. Forest Service, National Firewise Program |
| Lead Agency/Department Responsible: | Fire Dept., Fire Marshall |
| Implementation Schedule: | 2011 and continuing |

SECTION 21: NEW ACTIONS

| Boerne – 2 (NFIP) | |
|-------------------------------|---|
| Proposed Action: | Implement public awareness program to identify sites and place hazardous warning signs and auto barricades at low water crossings |
| BACKGROUND INFORMATION | |
| Site and Location: | Low water crossings within city limits |
| History of Damages: | City experiences several flash floods yearly. Citizens routinely drive into floodwaters requiring rescue. Greater awareness is needed to reduce loss of lives due to driving through low water crossings. |

| MITIGATION ACTION DETAILS | |
|--|-----------------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To Be Determined |
| Potential Funding Sources: | Grants, Budget, and other Program |
| Lead Agency/Department Responsible: | Road and Bridge, Emergency Mgmt |
| Implementation Schedule: | 2011 and continuing |

SECTION 21: NEW ACTIONS

| Boerne - 3 | |
|-------------------------------|--|
| Proposed Action: | Continue to expand and improve City's communications network to include 7 channel 6.25 kHz trunked system to facilitate communication between responders |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide |
| History of Damages: | Inoperable issues need to be addressed. |

| MITIGATION ACTION DETAILS | |
|--|---------------------|
| Hazard(s) Addressed: | Wildfire |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$400,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | EMS/Fire |
| Implementation Schedule: | 2011 and continuing |

SECTION 21: NEW ACTIONS

| Boerne - 4 | |
|-------------------------------|---|
| Proposed Action: | Upgrade existing flood warning signage and barricades with signs meeting or exceeding new reflectivity requirements of the Manual on Uniform traffic Control Devices, (2009) Sec. 2 |
| BACKGROUND INFORMATION | |
| Site and Location: | Multiple low water crossings throughout the City |
| History of Damages: | Boerne has several flash floods annually. Several deaths have occurred due to individuals driving into low water crossings with numerous rescues and close calls |

| MITIGATION ACTION DETAILS | |
|--|--------------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$25,000 |
| Potential Funding Sources: | Grants, Budget |
| Lead Agency/Department Responsible: | Road and Bridge, City engineer |
| Implementation Schedule: | 2011 and continuing |

SECTION 21: NEW ACTIONS

| Boerne – 5 (NFIP) | |
|-------------------------------|--|
| Proposed Action: | Install Advanced Warning System at low water crossings |
| BACKGROUND INFORMATION | |
| Site and Location: | Multiple low water crossings throughout the City |
| History of Damages: | City has several flash floods annually. Several deaths have occurred due to individuals driving into low water crossings with numerous rescues and close calls |

| MITIGATION ACTION DETAILS | |
|--|--------------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$30,000 per crossing |
| Potential Funding Sources: | Grants, Budget |
| Lead Agency/Department Responsible: | Road and Bridge, city engineer |
| Implementation Schedule: | 2012 and continuing |

SECTION 21: NEW ACTIONS

Refugio County

| Refugio County - 1 | |
|-------------------------------|---|
| Proposed Action: | Procure funds to stabilize and reshore eroding bluff in vicinity of residential area at Austwell Bluff |
| BACKGROUND INFORMATION | |
| Site and Location: | Austwell Bluff |
| History of Damages: | Bluff continues to erode with each storm event including hurricane wind and rains |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Hurricane |
| Effect on new/existing buildings: | Reduce potential erosion of residential structures in vicinity |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Refugio County EMC and Pct. 4 |
| Implementation Schedule: | As funding is available |

SECTION 21: NEW ACTIONS

| Refugio County – 2 (NFIP) | |
|----------------------------------|--|
| Proposed Action: | Implement public awareness program for flood to include purchase of early warning alert system to include variable tone plus voice activated alert |
| BACKGROUND INFORMATION | |
| Site and Location: | County wide to include Town of Refugio, Woodsboro, Bayside, Austwell and Tivoli |
| History of Damages: | Public Awareness for Severe weather and potential hazardous material release incidents. Occur with little warning to citizens countywide |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Hurricane, Flood, Hazardous Materials Release |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Refugio County EMC and Pct. 4 |
| Implementation Schedule: | As funding is available |

SECTION 21: NEW ACTIONS

| Refugio County -3 (NFIP) | |
|---------------------------------|--|
| Proposed Action: | Increase stabilization of existing dike on Guadalupe/San Antonio River spill area on River Bottom Road, thus preventing washouts during severe weather and flooding events |
| BACKGROUND INFORMATION | |
| Site and Location: | River Bottom Road |
| History of Damages: | During heavy rain flooding occurs and damages existing containment dike. Flooding of fields washes out existing road for several hundred yards |

| MITIGATION ACTION DETAILS | |
|--|-------------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$10,000 or higher |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Refugio County EMC and Pct. 4 |
| Implementation Schedule: | As funding is available |

SECTION 21: NEW ACTIONS

City of Austwell

| Austwell – 1 (NFIP) | |
|-------------------------------|--|
| Proposed Action: | Install early alert warning system to include variable tone plus voice activated alert for flooding. |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide |
| History of Damages: | Flood warning and alert system is necessary to prevent citizens from going through dangerous areas, such as low water crossings. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Flood, Hurricane |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Refugio County EMC and Pct. 4, City of Austwell |
| Implementation Schedule: | As funding is available |

SECTION 21: NEW ACTIONS

| Austwell - 2 | |
|-------------------------------|--|
| Proposed Action: | Develop xeriscaping/drought education program to promote water conservation. Pamphlets and other informational materials will be placed in prominent locations such as City Hall |
| BACKGROUND INFORMATION | |
| Site and Location: | City wide |
| History of Damages: | Area prone to drought conditions and extreme heat |

| MITIGATION ACTION DETAILS | |
|--|-------------|
| Hazard(s) Addressed: | Drought |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | Local funds |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | 2011 |

SECTION 21: NEW ACTIONS

| Austwell – 3 (NFIP) | |
|-------------------------------|---|
| Proposed Action: | Develop flood awareness and education program to promote flood insurance. Pamphlets and other informational materials will be placed in prominent locations such as City Hall |
| BACKGROUND INFORMATION | |
| Site and Location: | City wide |
| History of Damages: | Area prone to flooding |

| MITIGATION ACTION DETAILS | |
|--|-------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | Local funds |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | 2012 |

SECTION 21: NEW ACTIONS

City of Bayside

| Bayside – 1 (NFIP) | |
|-------------------------------|--|
| Proposed Action: | Install early alert warning system to include variable tone plus voice activated alert for flooding. |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide |
| History of Damages: | Flood warning and alert system is necessary to prevent citizens from going through dangerous areas, such as low water crossings. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood, Hurricane |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Refugio County EMC and Pct. 4, City of Bayside |
| Implementation Schedule: | As funding is available |

SECTION 21: NEW ACTIONS

| Bayside - 2 | |
|-------------------------------|--|
| Proposed Action: | Develop xeriscaping/drought education program to promote water conservation. Pamphlets and other informational materials will be placed in prominent locations such as City Hall |
| BACKGROUND INFORMATION | |
| Site and Location: | City wide |
| History of Damages: | Area prone to drought conditions and extreme heat |

| MITIGATION ACTION DETAILS | |
|--|-------------|
| Hazard(s) Addressed: | Drought |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | Local funds |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | 2011 |

SECTION 21: NEW ACTIONS

| Bayside – 3 (NFIP) | |
|-------------------------------|---|
| Proposed Action: | Develop flood education program to promote flood awareness and flood insurance. Pamphlets and other informational materials will be placed in prominent locations such as City Hall |
| BACKGROUND INFORMATION | |
| Site and Location: | City wide |
| History of Damages: | Area prone to flooding |

| MITIGATION ACTION DETAILS | |
|--|-------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | Local funds |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | 2011 |

SECTION 21: NEW ACTIONS

Town of Refugio

| Town of Refugio – 1 (NFIP) | |
|-------------------------------|--|
| Proposed Action: | Install early alert warning system to include variable tone plus voice activated alert for flooding. |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide |
| History of Damages: | Flood warning and alert system is necessary to prevent citizens from going through dangerous areas, such as low water crossings. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood, Hurricane, Hazardous Material Release |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Refugio County EMC and Pct. 4, Town of Refugio |
| Implementation Schedule: | As funding is available |

SECTION 21: NEW ACTIONS

| Town of Refugio - 2 | |
|-------------------------------|--|
| Proposed Action: | Develop xeriscaping/drought education program to promote water conservation. Pamphlets and other informational materials will be placed in prominent locations such as City Hall |
| BACKGROUND INFORMATION | |
| Site and Location: | City wide |
| History of Damages: | Area prone to drought conditions and extreme heat |

| MITIGATION ACTION DETAILS | |
|--|-------------|
| Hazard(s) Addressed: | Drought |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | Local funds |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | 2011 |

SECTION 21: NEW ACTIONS

| Town of Refugio – 3 (NFIP) | |
|-----------------------------------|---|
| Proposed Action: | Develop flood awareness and education program to promote flood insurance. Pamphlets and other informational materials will be placed in prominent locations such as City Hall |
| BACKGROUND INFORMATION | |
| Site and Location: | City wide |
| History of Damages: | Area prone to flooding during periods of heavy rainfall |

| MITIGATION ACTION DETAILS | |
|--|-------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | Local funds |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | 2011 |

SECTION 21: NEW ACTIONS

Town of Woodsboro

| Woodsboro – 1 (NFIP) | |
|-------------------------------|--|
| Proposed Action: | Install early alert warning system to include variable tone plus voice activated alert for flooding. |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide |
| History of Damages: | Flood warning and alert system is necessary to prevent citizens from going through dangerous areas, such as low water crossings. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood, Hurricane |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Refugio County EMC and Pct. 4, City of Woodsboro |
| Implementation Schedule: | As funding is available |

SECTION 21: NEW ACTIONS

| Woodsboro - 2 | |
|-------------------------------|--|
| Proposed Action: | Educate the public on extreme heat/drought safety and health issues |
| BACKGROUND INFORMATION | |
| Site and Location: | citywide |
| History of Damages: | Severe and extreme heat can be a problem particularly for the elderly and those that work outdoors |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Hazard(s) Addressed: | Extreme Heat |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | Local funding |
| Lead Agency/Department Responsible: | City of Austwell |
| Implementation Schedule: | 2011 |

SECTION 21: NEW ACTIONS

| Woodsboro – 3 (NFIP) | |
|-------------------------------|--|
| Proposed Action: | Develop education program for the public on flood awareness and flood insurance availability |
| BACKGROUND INFORMATION | |
| Site and Location: | citywide |
| History of Damages: | Public awareness. Reduce potential flooding and increase policy base |

| MITIGATION ACTION DETAILS | |
|--|------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | Minimal |
| Potential Funding Sources: | Local funding |
| Lead Agency/Department Responsible: | City of Austwell |
| Implementation Schedule: | 2011 |

SECTION 21: NEW ACTIONS

Woodsboro Independent School District

| WISD – 1 | |
|-------------------------------|---|
| Proposed Action: | Improve drainage at Woodsboro Elementary |
| BACKGROUND INFORMATION | |
| Site and Location: | Front of Woodsboro Elementary Campus on Myrtle Street |
| History of Damages: | During flood events water backs up and students and faculty have difficulty accessing the building. |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood / Hurricane |
| Effect on new/existing buildings: | Improved drainage would help the existing building by reducing water damage during flood events. |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$200,000.00 |
| Potential Funding Sources: | HMGP and PDM grants |
| Lead Agency/Department Responsible: | Woodsboro ISD with assistance from the Town of Woodsboro |
| Implementation Schedule: | Upon receipt of grant funding |

SECTION 21: NEW ACTIONS

WISD – 2

| | |
|-------------------------------|--|
| Proposed Action: | Improve drainage at Jr./Sr. High School Building. |
| BACKGROUND INFORMATION | |
| Site and Location: | Front of Woodsboro Jr. /Sr. High School Building. |
| History of Damages: | The campus has several issues with standing water during periods of heaving rains and improved drainage is necessary to prevent continuous damage. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Flood / Hurricane |
| Effect on new/existing buildings: | Improved drainage would help the existing building by reducing water damage during flood events. |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | \$50,000 |
| Potential Funding Sources: | HMGP and PDM grants |
| Lead Agency/Department Responsible: | Woodsboro ISD |
| Implementation Schedule: | Upon receipt of grant funding |

SECTION 21: NEW ACTIONS

WISD – 3

| | |
|-------------------------------|---|
| Proposed Action: | Retrofit roof and facilities at the Woodsboro ISD Auditorium |
| BACKGROUND INFORMATION | |
| Site and Location: | Woodsboro ISD Auditorium |
| History of Damages: | The current auditorium is need of repair as lack of facilities and deterioration has makes it difficult for the district to conduct evacuation plans. |

| | |
|--|--------------------------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Flood / Hurricane |
| Effect on new/existing buildings: | Improved use during emergency events |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$600,000 |
| Potential Funding Sources: | Local funding and HMGP/PDM grants |
| Lead Agency/Department Responsible: | Woodsboro ISD |
| Implementation Schedule: | 2011-2012 |

SECTION 21: NEW ACTIONS

WISD – 4

| | |
|-------------------------------|---|
| Proposed Action: | Strengthen campus buildings by replacing windows and installing electronic roll-down shutters |
| BACKGROUND INFORMATION | |
| Site and Location: | Woodsboro Jr./Sr. High School Building |
| History of Damages: | Windows are always broken and replaced during storms. The building should be retrofitted by strengthening windows and installing electronic roll-down shutters. |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Thunderstorm |
| Effect on new/existing buildings: | This action would prevent a continuous cycle of damage to windows during storm events. |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$300,000 |
| Potential Funding Sources: | Local funding and HMGP/ PDM grants |
| Lead Agency/Department Responsible: | Woodsboro ISD |
| Implementation Schedule: | 2011-2012 |

SECTION 21: NEW ACTIONS

Victoria County

| Victoria County – 1 | |
|-------------------------------|---|
| Proposed Action: | Install signs prohibiting dumping in streams, ditches, waterways and floodplain areas to include security cameras or some form of surveillance. Public awareness campaign on illegal dumping and violations incurred for such activity. |
| BACKGROUND INFORMATION | |
| Site and Location: | Victoria County |
| History of Damages: | Consistent violations occurring throughout the County, affecting the water ways, water shed, and flood plain regions. |

| MITIGATION ACTION DETAILS | |
|--|-----------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | 20,000 – 30,000 |
| Potential Funding Sources: | Grant |
| Lead Agency/Department Responsible: | Victoria County |
| Implementation Schedule: | 1 – 2 year |

SECTION 21: NEW ACTIONS

| Victoria County - 2 | |
|-------------------------------|--|
| Proposed Action: | Implement annual outreach program for County residents regarding development activities in Floodplain in accordance with the Victoria County Floodplain Ordinance. |
| BACKGROUND INFORMATION | |
| Site and Location: | Victoria County |
| History of Damages: | Consistent violations throughout Victoria County. Citizen's have become complaisant to the proper development and the permitting process |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Reduce potential flooding of structures elevated above BFE and built in accordance with local floodplain ordinance |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | 2000 - 5000 |
| Potential Funding Sources: | Grant |
| Lead Agency/Department Responsible: | Victoria County Floodplain Administration |
| Implementation Schedule: | 6 months – 1 year |

SECTION 21: NEW ACTIONS

| Victoria County - 3 | |
|-------------------------------|--|
| Proposed Action: | Implement Stormwater Runoff Outreach Campaign to reduce non-point source pollution to include how runoff affects ground water quality |
| BACKGROUND INFORMATION | |
| Site and Location: | Victoria County |
| History of Damages: | Consistent violations throughout Victoria County of non-point source pollution in storm water. |

| MITIGATION ACTION DETAILS | |
|--|---|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | 2000 - 5000 |
| Potential Funding Sources: | Grant |
| Lead Agency/Department Responsible: | Victoria County Floodplain Administration |
| Implementation Schedule: | 1 – 5 years |

SECTION 21: NEW ACTIONS

| Victoria County - 4 | |
|-------------------------------|---|
| Proposed Action: | Install or upgrade drop structures, concrete spillways, culverts, culvert pipes, wingback walls, tieback walls and bridges at various county roads and bridges |
| BACKGROUND INFORMATION | |
| Site and Location: | Hollybrook Rd, Tipton Rd, Hamilton Rd, Karnes Rd, Salem Rd, Oliver Rd, Parsons Rd, Nursery Dr, Kemper City East, Dove Rd, and other areas in the county. |
| History of Damages: | Repetitive flood damages to structures, requiring extensive repairs from the floods of 1998, 2002, & 2007. |

| MITIGATION ACTION DETAILS | |
|--|---------------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | None |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$50,000 - \$100,000 (each) |
| Potential Funding Sources: | Grant |
| Lead Agency/Department Responsible: | Victoria County Road and Bridge |
| Implementation Schedule: | 1-3 yrs |

SECTION 21: NEW ACTIONS

| Victoria County - 5 | |
|-------------------------------|--|
| Proposed Action: | Install visible flood gauges at all county low water crossings and bridges. |
| BACKGROUND INFORMATION | |
| Site and Location: | Victoria County |
| History of Damages: | Repetitive flood damages to structures, requiring extensive repairs from the floods of 1998, 2002, & 2007. |

| MITIGATION ACTION DETAILS | |
|--|------------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | County |
| Implementation Schedule: | As funding becomes available |

SECTION 21: NEW ACTIONS

| Victoria County - 6 | |
|-------------------------------|--|
| Proposed Action: | Elevate road height of Industrial Dr. to alleviate flooding of roadway |
| BACKGROUND INFORMATION | |
| Site and Location: | Victoria County |
| History of Damages: | Consistent flooding after rains, making the road impassible. |

| MITIGATION ACTION DETAILS | |
|--|---------------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | None |
| Priority (High, Moderate, Low): | Medium |
| Estimated Cost: | \$350,000-\$500,000 |
| Potential Funding Sources: | Grant |
| Lead Agency/Department Responsible: | Victoria County Road and Bridge |
| Implementation Schedule: | 1-2 yrs |

SECTION 21: NEW ACTIONS

| Victoria County - 7 | |
|-------------------------------|---|
| Proposed Action: | Drainage outfall rehabilitation and de-vegetation of Garciata's Creek, Quail Creek, and Spring Creek areas |
| BACKGROUND INFORMATION | |
| Site and Location: | Victoria County sites as described |
| History of Damages: | Repetitive flooding and back flow of water during heavy rain events. |

| MITIGATION ACTION DETAILS | |
|--|-----------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | None |
| Priority (High, Moderate, Low): | Medium |
| Estimated Cost: | \$1,000,000.00 |
| Potential Funding Sources: | Grant |
| Lead Agency/Department Responsible: | Victoria County |
| Implementation Schedule: | 1-5 yrs |

SECTION 21: NEW ACTIONS

| Victoria County - 8 | |
|-------------------------------|---|
| Proposed Action: | Implement program to trim trees and remove vegetative debris in the right of way. |
| BACKGROUND INFORMATION | |
| Site and Location: | Victoria County |
| History of Damages: | Heavy debris in right of ways after severe weather events |

| MITIGATION ACTION DETAILS | |
|--|----------------------|
| Hazard(s) Addressed: | Severe Winter Storms |
| Effect on new/existing buildings: | None |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1,000.00 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Victoria County |
| Implementation Schedule: | 1-2 yrs |

SECTION 21: NEW ACTIONS

| Victoria County - 9 | |
|-------------------------------|---|
| Proposed Action: | Develop program and work with Federal, State, and Local Officials to determine storage locations and reduce fuel on public and private lands. |
| BACKGROUND INFORMATION | |
| Site and Location: | Victoria County |
| History of Damages: | Repetitive wildfires during drought and high wind seasons. |

| MITIGATION ACTION DETAILS | |
|--|-----------------|
| Hazard(s) Addressed: | Wildfire |
| Effect on new/existing buildings: | None |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1,000.00 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Victoria County |
| Implementation Schedule: | 1-2 yrs |

SECTION 21: NEW ACTIONS

| Victoria County - 10 | |
|-------------------------------|--|
| Proposed Action: | Purchase tailgate spreaders to ensure adequate supplies of snow and ice supplies can be distributed in a effective time frame during severe winter storms |
| BACKGROUND INFORMATION | |
| Site and Location: | Victoria County |
| History of Damages: | Repetitive road and bridges closures due to inclement weather conditions such as snow and ice. |

| MITIGATION ACTION DETAILS | |
|--|----------------------|
| Hazard(s) Addressed: | Severe Winter Storms |
| Effect on new/existing buildings: | None |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$30,000.00 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Victoria County |
| Implementation Schedule: | 1-2 yrs |

SECTION 21: NEW ACTIONS

| Victoria County - 11 | |
|-------------------------------|---|
| Proposed Action: | Retrofit windows on Bridge Street County Annex |
| BACKGROUND INFORMATION | |
| Site and Location: | Bridge Street County Annex EOC |
| History of Damages: | Fire, EMS, EOC's and Police stations are vulnerable to high winds, which can damage communications, roof, windows and mechanical parts to facilities. |

| MITIGATION ACTION DETAILS | |
|--|------------------------------|
| Hazard(s) Addressed: | Hurricane, Tornado |
| Effect on new/existing buildings: | None |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$58,000 |
| Potential Funding Sources: | HMGP |
| Lead Agency/Department Responsible: | Victoria County |
| Implementation Schedule: | 1-3 years from Plan adoption |

SECTION 21: NEW ACTIONS

| Victoria County - 12 | |
|-------------------------------|---|
| Proposed Action: | Drainage project at Live Oak and Acorn Loop |
| BACKGROUND INFORMATION | |
| Site and Location: | Victoria County |
| History of Damages: | Repetitive flood damages to structures, requiring extensive repairs from the floods of 1998, 2002, & 2007 |

| MITIGATION ACTION DETAILS | |
|--|------------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | None |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$189,000 |
| Potential Funding Sources: | HMGP |
| Lead Agency/Department Responsible: | Victoria County |
| Implementation Schedule: | 1-3 Years from Plan approval |

SECTION 21: NEW ACTIONS

City of Victoria

| City of Victoria - 1 | |
|-------------------------------|---|
| Proposed Action: | Install signs prohibiting dumping in streams, ditches, waterways and floodplain areas to include security cameras or some form of surveillance. Public awareness campaign on illegal dumping and violations incurred for such activity. |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide |
| History of Damages: | Consistent violations occurring throughout the City, affecting the water ways, water shed, and flood plain regions. |

| MITIGATION ACTION DETAILS | |
|--|-----------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | 20,000 – 30,000 |
| Potential Funding Sources: | Grant |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | 1 – 2 year |

SECTION 21: NEW ACTIONS

| City of Victoria – 2 (NFIP) | |
|-------------------------------|--|
| Proposed Action: | Implement annual Outreach program for residents regarding development activities in Floodplain in accordance with the City's Floodplain Ordinance. |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide |
| History of Damages: | Consistent violations throughout Victoria. Citizen's have become complacent to the proper development and the permitting process |

| MITIGATION ACTION DETAILS | |
|--|--|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | Reduce potential flooding of structures elevated above BFE and built in accordance with local floodplain ordinance |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | 2000 - 5000 |
| Potential Funding Sources: | Grant |
| Lead Agency/Department Responsible: | Victoria Floodplain Administration |
| Implementation Schedule: | 6 months – 1 year |

SECTION 21: NEW ACTIONS

| City of Victoria - 3 | |
|-------------------------------|--|
| Proposed Action: | Implement Stormwater Runoff Outreach Campaign to reduce non-point source pollution to include how runoff affects ground water quality |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide |
| History of Damages: | Consistent violations throughout Victoria of non-point source pollution in storm water. |

| MITIGATION ACTION DETAILS | |
|--|--------------------------------|
| Hazard(s) Addressed: | Thunderstorm |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | 2000 - 5000 |
| Potential Funding Sources: | Grant |
| Lead Agency/Department Responsible: | City Floodplain Administration |
| Implementation Schedule: | 1 – 5 years |

SECTION 21: NEW ACTIONS

City of Victoria - 4

| | |
|-------------------------------|--|
| Proposed Action: | Install, replace, repair, or rehabilitate drop structures, concrete spillways, culverts, culvert pipes, wingback walls, tieback walls and bridges at various roads and bridges |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide |
| History of Damages: | Repetitive flood damages to structures, requiring extensive repairs from the floods of 1998, 2002, & 2007. |

| | |
|--|-----------------------------|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | None |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$50,000 - \$100,000 (each) |
| Potential Funding Sources: | Grant |
| Lead Agency/Department Responsible: | Victoria Road and Bridge |
| Implementation Schedule: | 1-3 yrs |

SECTION 21: NEW ACTIONS

City of Victoria - 5

| | |
|-------------------------------|--|
| Proposed Action: | Install visible flood gauges at all low water crossings and bridges within the City |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide |
| History of Damages: | Repetitive flood damages to structures, requiring extensive repairs from the floods of 1998, 2002, & 2007. |

| MITIGATION ACTION DETAILS | |
|--|------------------------------|
| Hazard(s) Addressed: | Flood |
| Effect on new/existing buildings: | N/A |
| Priority (High, Moderate, Low): | Moderate |
| Estimated Cost: | To be determined |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | As funding becomes available |

SECTION 21: NEW ACTIONS

| City of Victoria - 6 | |
|-------------------------------|---|
| Proposed Action: | Implement program to remove tree limbs and vegetative debris in the right of way. |
| BACKGROUND INFORMATION | |
| Site and Location: | Citywide |
| History of Damages: | Heavy debris in right of ways after severe weather events |

| MITIGATION ACTION DETAILS | |
|--|------------|
| Hazard(s) Addressed: | Hurricane |
| Effect on new/existing buildings: | None |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1,000.00 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | 1-2 yrs |

SECTION 21: NEW ACTIONS

| City of Victoria - 7 | |
|-------------------------------|---|
| Proposed Action: | Work with Federal, State, and Local Officials to determine locations to reduce fuel on public and private lands. |
| BACKGROUND INFORMATION | |
| Site and Location: | City wide |
| History of Damages: | Repetitive wildfires during drought and high wind seasons. |

| MITIGATION ACTION DETAILS | |
|--|-----------------|
| Hazard(s) Addressed: | Wildfire |
| Effect on new/existing buildings: | None |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$1,000.00 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | Victoria County |
| Implementation Schedule: | 1-2 yrs |

SECTION 21: NEW ACTIONS

City of Victoria - 8

| | |
|-------------------------------|--|
| Proposed Action: | Purchase tailgate spreaders to ensure adequate supplies of snow and ice supplies can be distributed in a effective time frame during severe winter storms |
| BACKGROUND INFORMATION | |
| Site and Location: | City wide |
| History of Damages: | Road and bridges closed due to severe weather conditions such as snow and ice |

| | |
|--|--|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Severe Winter Storms |
| Effect on new/existing buildings: | Reduce potential for damage to structures caused by heavy snow/ice |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$30,000 |
| Potential Funding Sources: | Grants |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | 1-2 yrs. |

SECTION 21: NEW ACTIONS

City of Victoria - 9

| | |
|-------------------------------|---|
| Proposed Action: | Purchase and install lightning arrestor on City Water Pumping Plant #3 |
| BACKGROUND INFORMATION | |
| Site and Location: | Pumping Station number 3 Airline St @ Ben Jordan St |
| History of Damages: | Structural Protection from lightning strikes |

| | |
|--|---|
| MITIGATION ACTION DETAILS | |
| Hazard(s) Addressed: | Severe Thunderstorm |
| Effect on new/existing buildings: | Reduce potential for damage to structures caused by lightning strikes |
| Priority (High, Moderate, Low): | High |
| Estimated Cost: | \$111,000 |
| Potential Funding Sources: | HMGP |
| Lead Agency/Department Responsible: | City |
| Implementation Schedule: | 1-3 years from Plan approval |