

Section 20. Mitigation Actions by Jurisdiction

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Upper Basin

Kendall County

Kendall County covers 663 square miles of rolling to hilly terrain in the Edwards Plateau region in south central Texas, 170 miles inland from the Gulf of Mexico. Boerne, the county seat, is on Cibolo Creek, thirty miles northwest of San Antonio. The Guadalupe River crosses the county from west to east, the Blanco River cuts through in the north and Cibolo Creek in the south. Wildlife in the area includes deer, javelina (wild boar), coyote, bobcat, beaver, badger, fox, raccoon, weasel, squirrel, and a variety of small birds, fish, and reptiles. Vegetation native to the alkaline soils consists primarily of tall grasses, live oak, juniper, and mesquite. The non-government economy is based on tourism, agribusiness, and some manufacturing.

The first Europeans came to area in the 1840s. These settlers were German "freethinkers" who were not particularly receptive to organized religion. The county was formed in 1862 and named for George Wilkins Kendall. Kendall County has retained some of its German heritage, reflected in the surnames of many of its residents as well as in the atmosphere of its communities. Many residents today commute to work in San Antonio.

Residents celebrate their local history, holding the annual Volkssportverein's Easter Walk in April, the Berges Fest on Father's Day weekend in June, and a Founders Day celebration in October. These events, in addition to the Guadalupe River State Park, attracted visitors to the area and provide the county with significant tourist trade.

Kendall County

ACTION: **Develop action plans and provide training involving hazardous materials spills including area evaluation.**

Hazard Hazardous materials spills

Background Significant quantities of hazardous materials are transported by roads, rail and air. At any moment and at any place a spill could occur with disastrous result. An action plan and trained personnel must be in place to promptly respond at a moment's notice.

Benefits Public safety: protection of lives and property in the vicinity of a spill ,to include evacuation if necessary.



Priority	High
Estimated cost	\$5,000.00
Responsible organization	Emergency Management Office / Fire Department
Target completion date	2004 and ongoing
Funding sources	General Revenues, Fire Department allocations
Related objective(s)	2.1, 2.3, 4.3

Kendall County

ACTION: Seek FEMA grants to recover from and mitigate flood damage resulting from floods.

Hazard Floods

Background The Texas Hill Country is subject to sudden high intensity rainfall events. These events, combined with the steep topography within the water sheds, leads to significant and damaging floods. Grant assistance is necessary to restore infrastructure and provide mitigation programs such as buyouts.

Benefits

- assist local governments and the public to recover from a flooding event;
- reduce future flooding threats and damage;
- further public safety

Priority Very high following flooding event

Estimated cost unknown

Responsible organization Emergency Management Office/floodplain administrator

Target completion date Following occurrence of flooding event

Funding sources Grants

Related objective(s) 1.2, 4.3



Kendall County

ACTION: Provide protective gear, monitors and other special equipment required to manage the clean up and/or control of a hazardous materials spill.

Hazard Hazardous materials transportation

Background Significant quantities of hazardous materials are transported by roads, rail and air. At any moment and at any place a spill could occur with disastrous result. Trained personnel need specialized equipment to enter the spill area to manage and control cleanup activities safely and effectively.

Benefits Safety of the public in and around areas of hazardous materials spill.

Priority High

Estimated cost \$50,000.00

Responsible organization Emergency Management Office / Fire Department

Target completion date 2004 and ongoing

Funding sources Grants

Related objective(s) 2.3, 4.3

Kendall County

ACTION: Increase public awareness about issues involving development within a floodplain and the enforcement authority delegated to County.

Hazard Floods

Background Due to the steep topography of the hill country it is not always apparent where a flood-prone area or mapped floodplain exists. FEMA literature needs to be distributed and development reviews should be conducted so as not to allow development within a flood plain.

Benefits Public safety and reduction of lives and property losses during a flood, especially around areas where hazardous materials are stored.



Priority	Medium
Estimated cost	\$1,000.00
Responsible organization	Development Management Office
Target completion date	On going
Funding sources	General revenues
Related objective(s)	3.1, 4.1, 6.1

Kendall County

ACTION: Identify and supply safe shelter locations to be used during emergency events.

Hazard All

Background At various times there is a need to temporarily house and feed persons due to flooding, weather or some unexpected event. Plans, supplies and arrangements must be in place to immediately implement such a plan.

Benefits Public safety, comfort and convenience to those persons involved.

Priority High

Estimated cost \$1,000.00

Responsible organization Emergency Management Office

Target completion date 2004 and ongoing

Funding sources General Revenues, grants and donations

Related objective(s) 3.2, 4.2

Kendall County

ACTION: Provide a telephone communications system network which will alert specific residents of emergency situations in their area.

Hazard Floods, tornadoes, fires and hazardous spills



GUADALUPE-BLANCO RIVER AUTHORITY

Background	The high speed Emergency Notification System (Reverse 911) is a state-of-the-art telephone system that can rapidly alert residents in a targeted area of impending dangers on emergencies.
Benefits	Increased public safety due to the improved ability to provide effective early warning alerts of impending dangers.
Priority	High
Estimated cost	\$15,000.00
Responsible organization	Emergency Management Office
Target completion date	2004 - 2005
Funding sources	Grants
Related objective(s)	1.2, 4.1, 4.2, 4.3

Kendall County

ACTION:	Expand and improve County's Emergency Communications Network
Hazard	All hazard events require a coordinated communication system.
Background	Law Enforcement, the Fire Department, the EMS, the Road and Bridge Department and other public safety agencies are presently unable to communicate during emergencies because of incompatible radio frequencies.
Benefits	Improved public safety through coordinated communication which allows rapid response to emergency events.
Priority	High
Estimated cost	\$10,000.00
Responsible organization	Emergency Management Office
Target completion date	2004 and ongoing
Funding sources	Grants



Related objective(s) 1.2

City of Boerne (Kendall County)

ACTION: Develop and implement a public outreach program promoting the availability of flood insurance in/out of SFHA

Hazard Flood
Background Boerne is subject to frequent flash flooding, during which privately owned property is often damaged
Benefits Greater flood insurance coverage
Priority Medium
Estimated cost \$10,000
Responsible organization Emergency management coordinator
Target completion date 2004
Funding sources Grants
Related objective(s) 2.2, 3.2, 3.3, 5.1, 5.4

Middle Basin

Caldwell County

Caldwell County is 546 square miles of flat to rolling terrain located 120 miles inland from the Gulf of Mexico in south central Texas. It is part of the Austin Metropolitan Statistical Area. Lockhart, thirty miles south of Austin and seventy miles northeast of San Antonio, is the county seat. The county is bisected from southwest to northeast by the Luling-Darst Creek fault zone. Tall grasses and mesquite flourish in the northwest part of the county, and the southeastern half supports a wider variety of vegetation, including hardwoods (especially oak and elm), mesquite, and grasses. The county is almost entirely within the Guadalupe River basin. It is drained primarily by Plum Creek and its tributaries, and by the San Marcos River, which forms the boundary with Guadalupe County. Wildlife includes deer, javelinas, coyotes, bobcats, beavers, otters, foxes, raccoons, skunks, turkeys, squirrels, and a variety of small birds, fish, and reptiles.



GUADALUPE-BLANCO RIVER AUTHORITY

The Luling oilfield was discovered in Caldwell County in 1922, and the new industry expanded rapidly. The economic activity it generated protected Caldwell County from some of the hardships of the Great Depression. Production continues today.

Recreation in Caldwell County includes boating and fishing; hunting deer, javelinas, ducks, and geese; a botanic garden in Luling; and Lockhart State Park. The Chisholm Trail Roundup and a rodeo are held in Lockhart in June. In May the Luling Watermelon Thump attracts many visitors. The Texas Independence Trail runs through Caldwell County.

Caldwell County

ACTION: Obtain or develop inexpensive pamphlets and brochures on pipeline safety and directions on identifying and reporting problems

Hazard	Pipeline accidents and hazmat incidents
Background	Much of the county is crossed by pipelines carrying flammable and combustible liquids, gases, and materials. Some of these items are under great pressure and a break in the pipes can cause an extremely dangerous condition with the possibility of loss of lives. There have been 15 pipeline events in the county since 1968, costing from \$100 to \$240,000 in damages.
Benefits	<ul style="list-style-type: none"> • An educated public, informed about detecting a hazmat incident, protecting themselves against it, evacuation and shelter locations and procedures • Prevented injuries and loss of lives
Priority	Medium
Estimated cost	\$800
Responsible organization	LEPC
Target completion date	Ongoing
Funding sources	Grants, county budget
Related objective(s)	3.1, 3.2, 3.3, 4.1, 4.3

Caldwell County

ACTION: Expand and improve the county's emergency radio communications network; upgrade repeaters and their software; build a secure equipment building

Hazard All hazard events requiring a coordinated response



Background	Problems have developed when too many radio units have attempted to communicate at the same time. The repeaters and tower are also rapidly becoming outdated and overworked.
Benefits	Improved ability of emergency forces to serve the public
Priority	Medium
Estimated cost	\$54,000
Responsible organization	County Judge, OEM
Target completion date	2005
Funding sources	Grants, county budgets
Related objective(s)	4.2, 5.2

Caldwell County

ACTION: Develop a mass debris removal plan

Hazard Background	Flooding, strong winds, hailstorms, thunderstorms, and tornadoes All unincorporated areas of the county have had devastating storms that damaged public and private property and resulted in large quantities of debris on roads, creeks, rivers, streets, and bridges. Unit Road is the focus of this action.
Benefits	<ul style="list-style-type: none"> • Reduced danger of citizen exposure to hazardous materials found in debris • Improved mobility of emergency services because of clear roads and bridges
Priority	Medium
Estimated cost	\$500 to \$1,500
Responsible organization	Unit Road
Target completion date	2004
Funding sources	General revenues and grants
Related objective(s)	4.3, 5.2, 6.1

Caldwell County

ACTION: Provide volunteer fire departments with information about fire safety and outdoor burning for distribution to the public, including information about county ordinances

Hazard	Fire
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GUADALUPE-BLANCO RIVER AUTHORITY

Background Caldwell County is subject to grass and brush fires, particularly dangerous for this farming and ranching community. Structure fires also are increasing as land is being developed. This is work element A of the fire prevention, fire safety awareness, and general safety awareness program.

Benefits Protection of lives and property through public education

Priority High

Estimated cost \$1,000 to \$1,500 per year

Responsible organization Fire Marshal

Target completion date Begin by December 2003; ongoing thereafter

Funding sources County budget

Related objective(s) 3.2, 3.3, 4.1, 5.2

Caldwell County

ACTION: Ensure that area firefighters have access to high-quality training in brush and forest firefighting

Hazard Fire

Background This is work element B of the fire prevention, fire safety awareness, and general safety awareness program.

Benefits

- A more effective and efficient firefighting force
- A safer firefighting force
- A safer public

Priority High

Estimated cost Minimal – within existing budgets

Responsible organization Fire Marshal

Target completion date Begin 2003 and ongoing thereafter

Funding sources General revenues

Related objective(s) 2.3, 5.2

Caldwell County

ACTION: Enforce the special purpose ordinances concerning burning standards, burn bans, and aerial fireworks

Hazard Fire



Background	This is work element C of the fire prevention, fire safety awareness, and general safety awareness program.
Benefits	Reduced number of fires and, thus, a safer public
Priority	High
Estimated cost	Within existing budgets
Responsible organization	Fire marshal
Target completion date	Begin enforcement in 2003; ongoing thereafter
Funding sources	General revenues augmented by grants
Related objective(s)	5.2, 5.3

Caldwell County

ACTION: **Apply for grants to enable the county to buy out properties in greatest danger of flooding**

Hazard	Flood
Background	Floodplain buffer zones are needed in specific neighborhoods in the county.
Benefits	Reduced future flood damages
Priority	Low
Estimated cost	\$650,000 to \$1,250,000
Responsible organization	County judge, county auditor, floodplain administrator, and OEM
Target completion date	2013
Funding sources	Grants and other available outside funding
Related objective(s)	5.1, 5.2

Caldwell County

ACTION: **Update the DTN Weather Warning System and purchase a new computer to service that system; closely monitor National Weather Service reports during weather events**

Hazard	Weather events
Background	Through most of the county, large-scale flooding is a danger along the San Marcos River, Plum Creek, drainage ditches, and other low-lying areas. Floods could impact several bridges, businesses, roads, and residences. Since 1997, 19 flash floods and 7 floods have occurred, three of which were declared disasters.



GUADALUPE-BLANCO RIVER AUTHORITY

Benefits A safer public because of earlier and more dependable warning
Priority Very high
Estimated cost \$3,600 per year, approximately
Responsible organization OEM
Target completion date End of 2003
Funding sources Budgeted item
Related objective(s) 3.2, 3.3, 4.1, 4.2, 4.3

Caldwell County

ACTION: Establish a telephone communication system to alert all residents in the flood-prone areas of the county and provide up-to-date emergency weather information and safety instructions; develop protocols for use of the system

Hazard Background Flood
 The high-speed Emergency Notification System (Reverse 911) is a state-of-the-art telephone notification system that can communicate watches, warnings, and other important time-sensitive information from local governments and public safety agencies simultaneously to large groups of residents. The system will allow geographical selection of targeted notification areas, including homes, businesses, hospitals, etc.

The Emergency Notification System will enable local governments and public safety agencies to contact residents and businesses in specific areas in the event of an emergency. The system also can be used to call response personnel and deliver incident-specific information or instructions, with confirmation of message receipt through a touch-tone response.

Benefits A safer public because of more effective and encompassing warning and information system
Priority Very high
Estimated cost \$27,000 to \$35,000
Responsible organization Floodplain administrator
Target completion date 2008
Funding sources Grants, general funds, bonds
Related objective(s) 3.2, 3.3, 4.1, 4.2, 4.3



Caldwell County

ACTION: Update and strengthen the floodplain ordinance to include freeboard of 1 foot and fines for violators of the freeboard requirement

Hazard	Flood
Background	Class C fines are expected to greatly reduce violations of the floodplain ordinance
Benefits	Reduced potential for flood losses and damages
Priority	Very high
Estimated cost	Costs are within existing budgets
Responsible organization	Floodplain administrator
Target completion date	End of 2004
Funding sources	General revenues
Related objective(s)	5.1, 5.2, 5.3, 6.3

Caldwell County

ACTION: Develop and publicize evacuation plans, policies, and procedures for all contingencies and geographic areas of the county

Hazard	All
Background	The County has an evacuation annex to its emergency plan that needs to be expanded. The annex needs to be tailored to specific events and specific neighborhoods.
Benefits	<ul style="list-style-type: none"> • Improved evacuation procedures • An informed public when evacuation is necessary • More effective response when evacuation is required
Priority	High
Estimated cost	To be determined
Responsible organization	OEM, fire departments and volunteer fire departments, law enforcement
Target completion date	2004
Funding sources	General revenues
Related objective(s)	3.2, 3.3, 4.1, 4.2, 4.3



GUADALUPE-BLANCO RIVER AUTHORITY

City of Lockhart (Caldwell County)

ACTION: Define and publicize the locations of safe shelter for residents to use before, during, and after severe weather storms, or as necessitated by other community hazards

Hazard All hazards

Background There is a need to identify safe shelter structures for residents, obtain use agreements, and publicize their locations.

Benefits Provide safe shelter to reduce loss of life and injury

Priority High

Estimated cost \$ 2,000 to \$ 3,500 in legal costs and signs

Responsible organization City of Lockhart

Target completion date September 2005

Funding sources General revenues

Related objective(s) 3.2, 3.3, 4.1, 4.2, 4.3

City of Lockhart (Caldwell County)

ACTION: Identify and cut or trim trees that can cause major damages to power distribution lines causing power outages

Hazard Power outages

Background City has program to identify such areas but funding has been insufficient to address the needs.

Benefits Decrease power outages

Priority Medium

Estimated cost \$ 40,000 more annually

Responsible organization City of Lockhart

Target completion date September 2005

Funding sources Electric funds

Related objective(s) 4.3, 5.2, 5.3



City of Lockhart (Caldwell County)

ACTION: Low-water crossing areas and high-water accumulation areas need additional identification warnings including warning lights

Hazard Flood waters at low water crossings and other high water accumulation areas

Background City has several low water crossings and high water accumulation areas that need to be better identified

Benefits Decrease possibility of loss of life, injuries and vehicles in these areas

Priority High

Estimated cost \$ 15,000 to \$ \$ 20,000

Responsible organization City of Lockhart

Target completion date September 2005

Funding sources Grants and local match general funds

Related objective(s) 3.3, 4.1, 4.2, 4.3

City of Lockhart (Caldwell County)

ACTION: Designate and/or provide one central location for the safe storage of sensitive City records that might lost due fire, tornado, hurricane, or other disaster

Hazard All hazards

Background City has a small confined area of city hall for storage of sensitive City records. This storage space is insufficient and is not adequately protected. The City also uses a portion of the old hospital for storage of records and this space is not adequately protected.

Benefits Ensure safe storage of City records

Priority High

Estimated cost \$ 50,000 to \$ 60,000

Responsible organization City of Lockhart

Target completion date September 2006

Funding sources Grants, general funds

Related objective(s) 5.2



GUADALUPE-BLANCO RIVER AUTHORITY

City of Lockhart (Caldwell County)

ACTION: Develop an early weather/community hazard warning system for Lockhart residents

Hazard	Tornado, high winds, hail, flooding, other community Hazards
Background	The City did have sirens on the Fire Station and on one water tower that were used to warn residents of impending weather hazards. These no longer work and cannot for costs reasons be repaired.
Benefits	Provide early warning system to residents about impending weather hazards helping to reduce the loss of life and injury
Priority	High
Estimated cost	\$ 200,000
Responsible organization	City of Lockhart
Target completion date	September 2005
Funding sources	Will seek grants
Related objective(s)	3.2, 3.3, 4.1, 4.2, 4.3

City of Luling (Caldwell County)

ACTION: Adopt routine fire hydrant maintenance

Hazard	Fire (damage due to inoperable fire hydrants)
Background	An inspection of fire hydrants disclosed some inoperable and closed valves
Benefits	Improved fire protection because of flow ratings and prevented downtime of firefighters
Priority	High
Estimated cost	To be determined
Responsible organization	City of Luling - Water Department City of Luling - Fire Department
Target completion date	Summer 2004 and ongoing
Funding sources	General revenues
Related objective(s)	5.2



City of Luling (Caldwell County)

ACTION: Create GIS map, and show related National Flood Insurance Program policies, claims, and losses (including repetitive losses)

Hazard	Flood
Background	Limited information about previous flood damage incidents and reports
Benefits	Reduced losses and claims, better public information, data on which to make flood-damage-reduction decisions
Priority	High
Estimated cost	To be determined
Responsible organization	Code Enforcement Public Works
Target completion date	Spring 2004
Funding sources	General revenues, grants
Related objective(s)	6.3

City of Luling (Caldwell County)

ACTION: Update the subdivision ordinance to incorporate safety measures

Hazard	Unsafe structures
Background	Limited information for design, construction and maintenance of subdivisions
Benefits	Established standards and procedures
Priority	High
Estimated cost	To be determined
Responsible organization	Code Enforcement Building Official
Target completion date	Fall 2003
Funding sources	General revenues
Related objective(s)	5.2, 5.3, 6.1, 6.3

City of Luling (Caldwell County)

ACTION: Install burn ban signs

Hazard	Fire due to unattended burning
Background	Several grass fires have occurred in various neighborhoods



GUADALUPE-BLANCO RIVER AUTHORITY

Benefits Prevented fires; fewer losses due to fire; a safer public
Priority Medium - High
Estimated cost \$500
Responsible organization Street Department
Target completion date 2003
Funding sources General revenues
Related objective(s) 5.2

City of Luling (Caldwell County)

ACTION: Implement a program to routinely clear rights-of-way of tree limbs and other obstructions that impinge on the free flow of traffic

Hazard Storms and winds
Background Loss of utilities during high winds.
Benefits Reduced power outages in recently improved areas; fewer restrictions created by runoff
Priority Medium
Estimated cost To be determined
Responsible organization Electric Department
Street Department
Target completion date 2004
Funding sources General revenues
Related objective(s) 4.3

City of Luling (Caldwell County)

ACTION: Clear trees and shrubs from Salt Branch Creek

Hazard Flood
Background Salt Branch Creek has become an illegal dump site. The dumped debris causes backups and obstructs runoff, restricting necessary drainage of the area.
Benefits Improved stormwater runoff for N. Hackberry - N. Laurel area; reduced roadway flooding to very low volume in vicinity of creek
Priority High
Estimated cost \$31,000 (approximately half completed January 2003)



Responsible organization City of Luling Street and Brush Department
Target completion date December 2004
Funding sources Grants and general revenues
Related objective(s) 4.3

City of Luling (Caldwell County)

ACTION: Enact an ordinance to prohibit dumping in streams and ditches

Hazard Flood
Background Established drainage courses are being used by the public as dumping areas
Benefits Improved drainage, preventing future flooding
Priority High
Estimated cost To be determined
Responsible organization Street Department
Target completion date 2004
Funding sources General revenues
Related objective(s) 4.3

City of Martindale (Caldwell County)

ACTION: Develop and implement a maintenance program for drains and culverts

Hazard Flood
Background Frequent flash floods from the Guadalupe River result in backups of debris, particularly in low-lying public and private areas. A plan is needed to improve the efficiency and timeliness of clearance of debris from drains and culverts
Benefits Clearer drainage areas, minimizing flooding of residences, businesses, and streets
Priority Medium
Estimated cost \$25,000
Responsible organization Emergency Management office
Target completion date 2004
Funding sources Grants
Related objective(s) 4.3



DeWitt County

DeWitt County is in southeastern Texas about forty-five miles inland from Copano Bay. Cuero, the county's largest town, is its county seat. The present county was organized in 1846. It comprises 910 square miles, most of which is nearly level to sloping in the northwest segment. The eastern corner and the Gonzales county line are characterized by tall grasses and, along streams, oak, elm, and pecan trees. Other areas support tall grasses, small trees, shrubs, and crops. Most of the county is drained by the Guadalupe River and its tributaries, which include the various branches of Coletto Creek, and also Sandies, Salt, Smith, McCoy, Irish, Cuero, and Clear creeks. Small areas in the northern part of the county are drained by the Lavaca River, and a small area in the southern part by the San Antonio River.

There is no evidence of early Spanish settlement in present-day DeWitt County, although the Spanish passed through in 1528. The first Anglo-American settlers arrived in the 1820s, primarily from Tennessee, Kentucky, Missouri, and other Southern states. (At the onset of the Texas Revolution these colonists pledged loyalty to Mexico.) German immigration of the 1840s and 1850s nearly doubled the area's population. Even into the 1930s, Germans continued to make up the greatest percentage of foreign-born residents although substantial numbers of Mexicans, Czechs, Poles, Austrians, English, and Syrians had moved to the county.

DeWitt County's economy is based on agribusiness and industry, such as wood, furniture, and leather-goods production, cotton weaving, and oil and gas production. The county also is an important cattle-raising area. The October Turkey Fest, held in Cuero since 1912, and Western Days in Yorktown draw tourists.

DeWitt County

ACTION: **Redesign the main stormwater drainage outlet from the City of Cuero to the Guadalupe River**

Hazard	Flood
Background	The City of Cuero has installed and will continue to install larger storm sewers in sections of the city to prevent flooding. This will cause floodwaters from the city to enter the drainage ditch at a much faster rate, which could cause flooding of property near the drainage ditch.
Benefits	Prevention of flooding near the drainage ditch
Priority	High
Estimated cost	\$2,000,000 to \$3,000,000
Responsible organization	DeWitt County Drainage District No. 1



Target completion date Five years from date of receipt of grant funding
Funding sources Grants
Related objective(s) 4.3, 5.1, 5.2

DeWitt County

ACTION: Obtain updated Flood Insurance Rate Maps for DeWitt County

Hazard Background Riverine flooding
 Based on the flooding patterns from the 1998 storm, the floodplain maps of DeWitt County need to be revised
Benefits Better understanding of threatened area boundaries; a safer public
Priority Medium
Estimated cost To be determined
Responsible organization Floodplain Administrator, in coordination with FEMA
Target completion date 2008
Funding sources FEMA mapping funds
Related objective(s) 5.3, 6.3

DeWitt County

ACTION: Install a public warning system (reverse 911)

Hazard Background All
 The county has no way to warn residents of possible danger to lives or property when warnings are received from the National Weather Service or other sources. No television or radio stations are located in DeWitt County that could provide this information to residents.
Benefits Saved lives and prevented injuries because of earlier warning
Priority Very high
Estimated cost \$20,000
Responsible organization DeWitt County Emergency Management
Target completion date Two years from date of receipt of grant funds
Funding sources Grants
Related objective(s) 3.2, 3.3, 4.1, 4.2, 4.3



GUADALUPE-BLANCO RIVER AUTHORITY

DeWitt County

ACTION: Obtain and install a generator for the EOC or alternate EOC

Hazard	All
Background	A back-up system is needed to provide power in the event of a power outage. The EOC has a generator but if it fails, another source of power would be needed. Another source of power would also be needed if it became necessary to move the EOC to another location, perhaps in Cuero, Yorktown, or Nordheim.
Benefits	Assurance of continuity of emergency response during disaster events
Priority	High
Estimated cost	\$22,000
Responsible organization	DeWitt County Emergency Management
Target completion date	One year from date of receipt of grant funds
Funding sources	Grants
Related objective(s)	1.2

DeWitt County

ACTION: Install a flood gage on the Guadalupe River Bridge located on U.S. Highway 183 at Hochheim, Texas

Hazard	Riverine flooding
Background	DeWitt County and the City of Cuero have experienced several major floods – the 1998 flood being the flood of record. Floodwaters reached Cuero two days before their predicted arrival. If a gauge had been in place during that event, citizens would have been informed earlier of the arrival of floodwaters and, thus, been able to better protect their property.
Benefits	Earlier warning, leading to more protection for lives and property
Priority	High
Estimated cost	To be determined
Responsible organization	DeWitt County, in coordination with GBRA and U.S. Geological Service
Target completion date	To be determined
Funding sources	GBRA and grants
Related objective(s)	3.2, 3.3, 4.1, 4.2, 4.3



City of Cuero (DeWitt County)

ACTION: Upgrade emergency communications equipment

Hazard	Flooding
Background	Cuero is at risk for flash floods from the Guadalupe River, requiring timely notification of residents if evacuation is needed
Benefits	More timely alert of flooding conditions and necessary evacuations; and improved communication among responders and emergency personnel
Priority	High
Estimated cost	\$200,000
Responsible organization	Public Works
Target completion date	2004
Funding sources	Grants
Related objective(s)	1.2, 5.2

City of Cuero (DeWitt County)

ACTION: Evaluate all structural and non-structural alternatives to reduce flood damage.

Hazard	Flood
Background	As described in the Army Corps of Engineers Reports on the flooding events or 1998 and 1994, the City of Cuero has suffered substantial damage from flooding.
Benefits	Reduced long-term flood damage
Priority	Very high
Estimated cost	To be determined
Responsible organization	City of Cuero Floodplain Administrator, in cooperation with GBRA, FEMA and the Corps of Engineers
Target completion date	Two years from award of funding.
Funding sources	Grants
Related objective(s)	5.1, 5.2, 6.1, 6.2 and 6.3

City of Cuero (DeWitt County)

ACTION: Obtain funding for Early Alert System

Hazard	All hazards
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GUADALUPE-BLANCO RIVER AUTHORITY

Background The City of Cuero has experienced a large number of disaster events and needs a better way of informing the public about disaster events as they unfold.

Benefits Faster alerting of disaster events would save lives and property

Priority Very high

Estimated cost \$50,000 siren system and \$20,000 for reverse 911 system

Responsible organization City of Cuero Emergency Manager

Target completion date Two years after award of funds

Funding sources Grants

Related objective(s) 4.1, 4.2

City of Cuero (DeWitt County)

ACTION: Obtain funding to revise/update FEMA Flood Insurance Rate Maps for the City of Cuero.

Hazard Flooding

Background Existing floodplain maps for the City of Cuero do not adequately characterize the flood risks.

Benefits Better understanding of risk and areas threatened

Priority Very high

Estimated cost To be determined

Responsible organization City of Cuero Floodplain Administrator, working with FEMA officials.

Target completion date Two years from award of funding

Funding sources FEMA Mapping Funds

Related objective(s) 5.1, 5.2 and 5.3

City of Cuero (DeWitt County)

ACTION: Obtain funding for generators for operation of water system and waste water system in emergency situations with no power.

Hazard All hazards

Background In disaster situations, generators are needed for critical facilities to ensure continued operations.

Benefits Protection of life and property – continued operation of essential functions.

Priority Very high



Estimated cost \$22,000
Responsible organization City of Cuero
Target completion date Two years from award of grant funds
Funding sources Grant funding
Related objective(s) 4.4

City of Cuero (DeWitt County)

ACTION: Promote hail-resistant construction

Hazard Hail events
Background The City of Cuero is at risk from hail events. Hail-resistant construction can help reduce damages.
Benefits Reduce destruction and costs of repairs
Priority Medium
Estimated cost \$5,000
Responsible organization City of Cuero
Target completion date This is an on-going activity.
Funding sources Funding is required for promotional materials; grant funds will be sought.
Related objective(s) 4.1, 5..2

City of Cuero (DeWitt County)

ACTION: Conduct annual tree trimming to protect electrical system in order to provide essential, reliable service to the community.

Hazard High wind events
Background The City of Cuero has experienced high wind events and need to ensure that the electrical system continues to operate.
Benefits Provide reliable electric service during high wind events
Priority Very high
Estimated cost \$30,000
Responsible organization City of Cuero
Target completion date This is an on-going activity, to be conducted on an annual basis.
Funding sources Electric Fund Revenues



GUADALUPE-BLANCO RIVER AUTHORITY

Related objective(s) 4.3, 4.4

City of Cuero (DeWitt County)

ACTION: Work with GBRA to establish flood gages at U.S. Highway 183 and Hochheim south of Gonzales.

Hazard Flooding

Background As described in the Army Corps of Engineers Reports on the flooding events or 1998 and 1994, the City of Cuero has suffered from frequent flooding events causing substantial damage.

Benefits Faster alerting of flood events.

Priority High

Estimated cost To be determined

Responsible organization City of Cuero, in coordination with GBRA and the U.S. Army Corps of Engineers

Target completion date To be determined

Funding sources To be determined

Related objective(s) 4.1, 4.2

City of Nordheim (DeWitt County)

ACTION: Obtain funding for two generators (80kw 480 volt 3 phase) for operation of water and waste water systems in emergency situations with no power.

Hazard All hazards

Background In disaster situations, generators are needed for critical facilities to ensure continued operations.

Benefits Protection of life and property and continued operation of essential functions.

Priority Very high

Estimated cost \$44,000

Responsible organization City of Nordheim

Target completion date Two years from award of grant funds

Funding sources Grants

Related objective(s) 4.4



City of Yoakum (DeWitt County)

ACTION: **Develop written mutual aid agreements with area communities**

Hazard	Multiple
Background	The City of Yoakum presently has written mutual aid agreements with most of its surrounding communities, but not all. It will endeavor to develop written mutual aid agreements with all of its neighbors.
Benefits	Clearer delineation of responsibilities and the legalities of mutual aid between Yoakum and communities with which it works
Priority	High
Estimated cost	Minimal
Responsible organization	Emergency Management
Target completion date	2005
Funding sources	General revenues
Related objective(s)	2.1

City of Yoakum (DeWitt County)

ACTION: **Purchase NOAA all-hazards radios for early warning and post-event information, and place them in area schools, businesses, and critical facilities**

Hazard	All hazards
Background	The City of Yoakum presently has no “early warning” system except for fire and law enforcement vehicles driving around using their public address systems to alert the public to possible danger.
Benefits	The ability to alert the public via radio to an impending weather or other serious hazard.
Priority	NOAA weather radios cost approximately \$50. per unit.
Estimated cost	To be determined
Responsible organization	Emergency Management
Target completion date	2008
Funding sources	General funds and grants.
Related objective(s)	3.2, 3.3, 4.1, 4.2, 4.3



GUADALUPE-BLANCO RIVER AUTHORITY

City of Yorktown (DeWitt County)

ACTION: **Develop mutual aid agreements with surrounding communities, enabling cooperation in times of disaster**

Hazard	Severe thunderstorms and hurricanes
Background	A plan is needed to support smaller communities in DeWitt County and coordinate their participation in necessary emergency response when severe weather strikes
Benefits	Maximizes effectiveness of response; ensures that responders will be available in any area of the county where severe weather damage occurs; improved communication among area responders
Priority	Medium
Estimated cost	\$15,000
Responsible organization	Public officials
Target completion date	2005
Funding sources	Grants
Related objective(s)	2.1

Gonzales County

Gonzales County is south of Austin and comprises some 683,295 acres and 1,046.4 square miles. The City of Gonzales is the county seat. Major rivers include the San Marcos and the Guadalupe. Several types of sandstone are quarried there and have been used as building material since the earliest arrival of settlers in the area. Clay, sand, gravel, volcanic ash, salt, and peat moss also are found. Vegetation in the county ranges from tall grasses, post oak, live oak and blackjack oak, to dense growth of mesquite, prickly pear, brush, and low-growing grasses. Live oak, pecan, walnut trees are native. The demand for walnut in the late 1800s by cabinetmakers that settled in the county, however, completely cleared the area of walnut trees.

The Cuero I Archeological District, partly in Gonzales County, is listed in the National Register of Historic Places. Bones of extinct animals have been found in Ottine and the archeological record shows that Coahuiltecan tribes occupied the area in historic times.

Gonzales County was established in 1836 and organized in 1837 as one of the original counties in the Republic of Texas. Early settlers from soil-exhausted southern states quickly converted the rich





alluvial soil into productive acreage, while Germans, English, Scots, Irish, French, Czechs, Austrians, and a sprinkling of Chinese immigrated and brought their cultural contributions to the area.

The cattle industry was one of the mainstays of county agriculture both before and after the Civil War, and agribusiness remains the county's economic mainstay. Poultry, especially turkeys, chickens, hogs, corn, hay, sorghum, peanuts, and wheat are produced.

Gonzales County

ACTION: **Establish a voluntary, basin-wide or regional program of cooperation among local governments in Gonzales County to share common concerns and resolve common problems regarding flooding and other hazards**

Hazard	All
Background	Disasters that affect multiple areas of the county can better be managed by a structured response involving all impacted areas. In particular, the Guadalupe River floods the entire county from time to time, causing considerable damage in multiple communities.
Benefits	Better cooperation and communication among communities, particularly with regard to public warning and evacuation information, and coordination of deployment of response personnel
Priority	High
Estimated cost	\$20,000
Responsible organization	Sheriff's office
Target completion date	2004
Funding sources	Grants
Related objective(s)	1.1, 2.1

City of Gonzales (Gonzales County)

ACTION: **Conduct a campaign to publicize the availability and location of shelters**

Hazard	Flood and severe storm
Background	The city has designated shelters in churches and homes, but the public may not know where to go in an emergency.
Benefits	A safer citizenry
Priority	Medium
Estimated cost	Minimal – within existing budgets





GUADALUPE-BLANCO RIVER AUTHORITY

Responsible organization Fire department, EMS, law enforcement, organizations that can provide shelter

Target completion date 2004

Funding sources Within existing budgets

Related objective(s) 3.2, 3.3, 4.1, 4.2, 4.3

City of Gonzales (Gonzales County)

ACTION: Upgrade emergency management radio coverage, frequencies, and communication uses

Hazard Background All
Emergency response personnel in Gonzales can benefit from better communication in emergency situations. For example, flash floods are a high risk and there is often little warning time to enable responders to make important decisions. Better communication and better training in the use of emergency management radio is indicated.

Benefits Improved efficiency and timeliness of response to disasters, particularly flash floods

Priority High

Estimated cost \$200,000

Responsible organization Public works

Target completion date 2004

Funding sources Grants

Related objective(s) 1.2

City of Nixon (Gonzales County)

ACTION: Undertake a review of the local floodplain management ordinance.

Hazard Background Flooding
Structures built in the floodplain are subject to damage by rising waters. In addition to increasing the number of properties at risk, development in the floodplain reduces the storage capacity of these areas, resulting in greater flood heights. With this action, consideration will be given to possible improvements in the City of Nixon's local floodplain ordinance.



Benefits A review of possible changes to the floodplain management ordinance will help make sure that it is up to date with development in the basin and will raise community awareness of flooding risks.

Priority Medium

Estimated cost Minimal

Responsible organization Floodplain Administrator

Target completion date September 2005

Funding sources General revenues

Related objective(s) 5.1, 5.3, 6.3

City of Nixon (Gonzales County)

ACTION: Conduct community awareness programs to inform the public about the hazards they face and actions they can take to prevent or reduce the loss of life and property.

Hazard All hazards

Benefits An educated citizenry is one of the best ways to protect against disaster. This action will increase community awareness and foster the adoption of appropriate hazard mitigation measures.

Priority Medium

Estimated cost Minimal

Responsible organization Mayor

Target completion date This is an on-going activity starting in 2003 and ending in 2008.

Funding sources General revenues

Related objective(s) 3.1, 3.2, and 3.3

City of Waelder (Gonzales County)

ACTION: Undertake a review of the local floodplain management ordinance.

Hazard Flooding

Background Structures built in the floodplain are subject to damage by rising waters. In addition to increasing the number of properties at risk, development in the floodplain reduces the storage capacity of these areas, resulting in greater flood heights. With this action, consideration will be given to possible improvements in the City of Waelder's local floodplain ordinance.



GUADALUPE-BLANCO RIVER AUTHORITY

Benefits A review of possible changes to the floodplain management ordinance will help make sure that it is up to date with development in the basin and will raise community awareness of flooding risks.

Priority Medium

Estimated cost Minimal

Responsible organization Floodplain Administrator

Target completion date September 2005

Funding sources General revenues

Related objective(s) 5.1, 5.3, 6.3

City of Waelder (Gonzales County)

ACTION: Conduct community awareness programs to inform the public about the hazards they face and actions they can take to prevent or reduce the loss of life and property.

Hazard All hazards

Benefits An educated citizenry is one of the best ways to protect against disaster. This action will increase community awareness and foster the adoption of appropriate hazard mitigation measures.

Priority Medium

Estimated cost Minimal

Responsible organization Mayor

Target completion date This is an on-going activity starting in 2003 and ending in 2008.

Funding sources General revenues

Related objective(s) 3.1, 3.2, and 3.3



Lower Basin

Calhoun County

Calhoun County, formed in 1846, was named for John C. Calhoun of South Carolina, who had advocated Texas statehood. It is located on the Gulf Coast between Houston and Corpus Christi. Approximately one-fourth of the county's 540-square-mile area is under water. Port Lavaca is the county seat. The flora includes tall grasses and live oaks with cordgrasses and sedges along the coast. Animal life includes quail, deer, doves, cottontail rabbits, jackrabbits, armadillos, skunks, opossums, raccoons, and a few coyotes. Between 21 and 30 percent of the land is considered prime farmland. The county is drained by the Guadalupe River, Chocolate Bayou, and several creeks. Green Lake, a large natural lake, is in Calhoun County.

The Gulf Coast was explored in 1519 for the governor of Jamaica. Explorers produced a map that named the mainland "Amichal." Spaniards arriving in 1689 found the ruins of a French fort but no permanent settlement was made until Anglo-American colonization about 1825. A hundred German families arrived in 1844, although few of them remained on the Gulf. Their tent village, called Karlshafen, became Indianola, the town that served as Calhoun county seat for many years. The majority of settlers came from Southern states, including Louisiana, Georgia, Mississippi, Tennessee, and Alabama, with a scattering of Poles adding to the Mexican heritage. Newcomers arriving during the 1840s made ranching, traditionally a Hispanic concern, an American occupation.

The county's economy incorporates aluminum manufacturing, a plastics plant, marine construction, agribusiness, petroleum, tourism, and fish processing.

Tourists visit the historic Half Moon Reef Lighthouse, Matagorda Island State Park and Wildlife Management Area, the Sea Fest in May, Texas Water Safari in June, Shrimp-Fest in July, Fishing Derby and Youth Rodeo in August, Christmas Parade in December, and Calhoun County Fair in October.

Calhoun County

ACTION: **Install warning sirens throughout county for all hazards**

Hazard	All hazards
Background	Calhoun County is on the coast and vulnerable to numerous hazards (hurricanes, floods, high winds, etc.).
Benefits	Early notification of residents/visitors



GUADALUPE-BLANCO RIVER AUTHORITY

Priority High
Estimated cost \$250,000
Responsible organization Emergency Management
Target completion date 2005
Funding sources Grants
Related objective(s) 3.2, 4.2

City of Point Comfort (Calhoun County)

ACTION: Purchase and install back-up generators for utilities and emergency services

Hazard All
Background During power outages, services are halted and treated water for drinking and firefighting are limited
Benefits Assurance of continuity of utility and emergency services; safer citizens, particularly the vulnerable (in hospitals, nursing homes, child care centers, etc.)
Priority Very high
Estimated cost Unknown
Responsible organization Local emergency management
Target completion date 2004
Funding sources General revenues, grants
Related objective(s) 5.2

City of Point Comfort (Calhoun County)

ACTION: Upgrade and integrate warning systems throughout the county

Hazard All
Background Current systems are outdated and do not provide dependable warning in emergency situations
Benefits Facilitated deployment of emergency and civilian responders; earlier and more dependable public warning
Priority High
Estimated cost \$20,000
Responsible organization Local emergency management



Target completion date 2004
Funding sources General revenues, grants
Related objective(s) 4.2

City of Point Comfort (Calhoun County)

ACTION: Identify and assist elderly, infirm, and special needs citizens to obtain transportation to a safe area and other services during an emergency

Hazard All
Background Special needs residents are not readily identifiable. A system by which they are identified, and maintenance of that system, is needed. A plan also is needed to ensure their safety during an emergency.
Benefits Added protection of the health and welfare of citizens during emergencies
Priority High
Estimated cost Unknown
Responsible organization Local emergency management
Target completion date 2005
Funding sources Grants
Related objective(s) 4.3

City of Port Lavaca (Calhoun County)

ACTION: Develop and implement a hazard awareness program

Hazard Weather-related hazards (e.g., hurricanes, tornadoes, flooding) and air-quality concerns
Background City 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 and air-quality hazards
Benefits A more knowledgeable public and, thus, reduced damages due to weather events and reduced illnesses attributable to poor air quality
Priority High
Estimated cost \$10,000
Responsible organization City of Port Lavaca
Target completion date 2006



GUADALUPE-BLANCO RIVER AUTHORITY

Funding sources Grants
Related objective(s) 3.2, 3.3, 4.1, 4.3

City of Port Lavaca (Calhoun County)

ACTION: Institute routine cleaning and maintenance of drainage areas

Hazard Flooding
Background Debris in drainage ditches and drainage areas inhibits the drainage of floodwaters, causing excessive flooding and back-ups
Benefits Reduced damages to structures and property
Priority Very high
Estimated cost \$100,000
Responsible organization City of Port Lavaca
Target completion date 2005
Funding sources Grants, general revenues
Related objective(s) 4.3

City of Port Lavaca (Calhoun County)

ACTION: Install an early warning system

Hazard All
Background The City has no effective, consistent warning system to notify residents of impending hurricanes, floods, thunderstorms, and other hazards
Benefits Expedited response to disasters; improved communication to citizens about protective actions to take; a safer public
Priority High
Estimated cost +/- \$50,000
Responsible organization City Fire Department
Target completion date 2005
Funding sources Grants
Related objective(s) 4.2

City of Port Lavaca (Calhoun County)

ACTION: Develop plans for removal of disaster debris from public and private property

Hazard All that create debris
Background Debris is often a result of a natural disaster. Debris can block bridges and



Benefits	evacuation routes, preventing the timely provision of emergency services to victims. Debris also may contain substances that are hazardous to people. Improved access to victims by emergency services; facilitated clearance of evacuation routes; a safer public
Priority	High
Estimated cost	+/- \$50,000
Responsible organization	City of Port Lavaca
Target completion date	2005
Funding sources	Grants, general revenues
Related objective(s)	4.3

City of Seadrift (Calhoun County)

ACTION: Develop and implement a multi-hazard public awareness program

Hazard	All
Background	City residents have no consistent local source to which they can turn for information about warning signals of impending events, evacuation information and routes, and general information they may need to know during an emergency
Benefits	Earlier warning of disaster events; improved communication about what to do before and during such events
Priority	High
Estimated cost	\$10,000
Responsible organization	Emergency management coordinator
Target completion date	2005
Funding sources	Grants, federal funds
Related objective(s)	3.2, 3.3, 4.1, 4.2, 4.3

City of Seadrift (Calhoun County)

ACTION: Select and install an early warning siren system for all hazards; develop protocols for use of the system

Hazard	Multiple
Background	Community residents have no local source of warning for hurricanes or other disasters, information about the disaster, or instructions as to how to protect themselves



GUADALUPE-BLANCO RIVER AUTHORITY

Benefits	Earlier and more specific warnings; more knowledge about steps to take and when to take them
Priority	High
Estimated cost	\$25,000
Responsible organization	Emergency management coordinator
Target completion date	2005
Funding sources	Grants, federal funds
Related objective(s)	4.3

City of Seadrift (Calhoun County)

ACTION: Develop a plan for efficient removal of debris following a disaster event

Hazard	All that create debris
Background	Downed trees and other debris following a disaster interfere with the flow of traffic, impede access by repair crews to downed power lines, reduce drainage of floodwaters, and otherwise lengthen the recovery process
Benefits	Earlier reduction of debris problems; better access by repair crews to work areas; expedited emergency services to victims
Priority	High
Estimated cost	\$30,000
Responsible organization	City of Seadrift
Target completion date	2005
Funding sources	Grants, federal funds
Related objective(s)	4.3

Refugio County

Refugio County covers 771 square miles of generally flat land on the lower Gulf Coast and was organized as one of the thirteen original counties of the Republic of Texas. The town of Refugio, the county's seat of government and largest urban center, is thirty-five miles north of Corpus Christi. The county is drained by the Aransas River, which forms its southern border, and by the converging Guadalupe and San Antonio rivers, which form its northern boundary. The Mission River, Copano Creek, and Willow Creek also flow through. A wide variety of wildlife populates the region, including deer, javelina, bobcat, quail, muskrat, beaver, mink, ring-tailed cat, badger, fox, turkey, duck, geese, jacksnipe, and sandhill crane. The endangered whooping crane nests under the protection of federal law in the Aransas National Wildlife Refuge.





The nomadic Karankawa Indians originally populated the area. Comanche and Lipan Apache Indians occasionally raided the area in the nineteenth century. The first European visitors were probably Spanish explorers who charted the coastline in 1520. Spaniards established a mission there in 1722, and Anglo-American immigration, bitterly opposed by Mexican residents, began in the 1830s. Immigrants nevertheless came from Ireland, New Orleans, New York, and other areas. Racial strife and violence erupted and continued until the early 1900s, when most Mexican-Americans had been forced to flee the area.

According to local lore, oil was first discovered in the county around 1870 near St. Mary's during the digging of a water well, but serious exploration did not begin until the 1910s. Significant gas production began about 1926 and periodically rose and fell while remaining a central part of the local economy into the 1990s. By 1989 reductions in oil prices had depressed the economy of Refugio County and, as in the early days, agriculture returned as the leading source of income. Hunters hoping to harvest the county's game animals also contributed to the local economy.

Refugio County was one of the first areas in the United States to raise an entire regiment of volunteers before America entered World War II. American Legionnaires in Refugio County alerted Americans to the Nazi threat. In a public statement announcing the formation of a home guard unit, the Legionnaires declared: "If the United States will not put itself in a state of preparedness, then Refugio County *will* as a protest and as an example." Responding to the call, the men of the county enlisted in such large numbers that a regimental structure was required. Reflecting the Irish roots of many of the men, the unit was named the Royal Irish Regiment of Refugio County. It was incorporated into the Texas Defense Guard at the end of 1940.

In July the town of Refugio celebrates an "Old-Fashioned Fourth" and hosts the State Frog-Jumping Contest. The County Fair is held there every October, as is the Festival of Flags.

Refugio County

ACTION: Complete the Refugio County and all towns' emergency plan

Hazard	All
Background	Texas Division of Emergency Management (DEM) has revised the format for emergency plans and the county is working with those responsible for various parts of the plan to update it to present standards.
Benefits	The county and all towns will have a DEM and FEMA approved plan which will result in a higher level of preparedness and response.
Priority	Very high
Estimated cost	\$5,000.00
Responsible	Office of Emergency Management





GUADALUPE-BLANCO RIVER AUTHORITY

organization

Target completion date January 1, 2004

Funding sources General revenues

Related objective(s) 1.2

Refugio County

ACTION: Investigate the availability and cost to operate and maintain an outdoor warning siren system

Hazard All

Background Refugio County and all towns rely on TV, radio, and some cable to disseminate warnings to the public.

Benefits Improved warnings to the majority of the county's population

Priority High

Estimated cost \$160,000.00

Responsible organization Office of Emergency Management

Target completion date January 1, 2007

Funding sources Grants, federal and/or state

Related objective(s) 1.2, 4.2

Austwell (Refugio County)

ACTION: Complete the Refugio County and all towns emergency plan

Hazard All

Background Texas DEM has revised the format for emergency plans and the county is working with those responsible for various parts of the plan to update it to present standards.

Benefits The county and all towns will have a DEM and FEMA approved plan which will result in a higher level of preparedness and response.

Priority Very high

Estimated cost \$5,000.00

Responsible organization Office of Emergency Management

Target completion date January 1, 2004

Funding sources General revenues

Related objective(s) 1.2



Austwell (Refugio County)

ACTION: Investigate the availability and cost to both operate and maintain an outdoor warning siren system

Hazard	All
Background	Refugio County and all towns rely on TV, radio, and some cable to disseminate warnings to the public.
Benefits	Improved warnings to the majority of the county's population
Priority	High
Estimated cost	\$160,000.00
Responsible organization	Office of Emergency Management
Target completion date	January 1, 2007
Funding sources	Grants, federal and/or state
Related objective(s)	4.3

Bayside (Refugio County)

ACTION: Complete the Refugio County and all towns emergency plan

Hazard	All
Background	Texas DEM has revised the format for emergency plans and the county is working with those responsible for various parts of the plan to update it to present standards.
Benefits	The county and all towns will have a DEM and FEMA approved plan which will result in a higher level of preparedness and response.
Priority	Very high
Estimated cost	\$5,000.00
Responsible organization	Office of Emergency Management
Target completion date	January 1, 2004
Funding sources	General revenues
Related objective(s)	1.2

Bayside (Refugio County)

ACTION: Investigate the availability and cost to both operate and maintain an outdoor warning siren system



GUADALUPE-BLANCO RIVER AUTHORITY

Hazard All
Background Refugio County and all towns rely on TV, radio, and some cable to disseminate warnings to the public.
Benefits Improved warnings to the majority of the county's population
Priority High
Estimated cost \$160,000.00
Responsible organization Office of Emergency Management
Target completion date January 1, 2007
Funding sources Grants, federal and/or state
Related objective(s) 4.2

Refugio (Refugio County)

ACTION: Complete the Refugio County-and-all-towns emergency plan

Hazard All
Background Texas DEM has revised the format for emergency plans and the county is working with those responsible for various parts of the plan to update it to present standards.
Benefits The county and all towns will have a DEM and FEMA approved plan which will result in a higher level of preparedness and response.
Priority Very high
Estimated cost \$5,000.00
Responsible organization Office of Emergency Management
Target completion date January 1, 2004
Funding sources General revenues
Related objective(s) 1.2

Refugio (Refugio County)

ACTION: Investigate the availability and cost to both operate and maintain an outdoor warning siren system

Hazard All
Background Refugio County and all towns rely on TV, radio, and some cable to disseminate warnings to the public.
Benefits Improved warnings to the majority of the county's population
Priority High



Estimated cost \$160,000.00
Responsible organization Office of Emergency Management
Target completion date January 1, 2007
Funding sources Grants, federal and/or state
Related objective(s) 4.2

Refugio (Refugio County)

ACTION: **Create a hazard information and evacuation center to educate residents on when/how/where to relocate in the event of a hurricane or other related disaster**

Hazard Background All requiring sheltering
Hurricanes are a primary hazard and sometimes occur with little warning time for residents.
Benefits Pre-event knowledge of evacuation locations and procedures will facilitate saving lives and preventing injuries
Priority High
Estimated cost \$15,000
Responsible organization Fire service
Target completion date 2005
Funding sources Grants
Related objective(s) 3.2, 3.3, 4.1

Refugio (Refugio County)

ACTION: **Develop and implement a debris removal plan**

Hazard Background All that create large volumes of debris
Debris is often left in roads and creeks as a result of disasters, particularly hurricanes. This makes roads inaccessible and poses a danger to residents in that (a) emergency officials may be blocked from access to injured individuals, downed power lines or other dangers; and (b) debris may contain hazardous substances that could be released into the environment.
Benefits Clear roadways and drainage areas after debris-causing weather events, and added safety for residents
Priority Medium



GUADALUPE-BLANCO RIVER AUTHORITY

Estimated cost \$30,000
Responsible organization Fire service
Target completion date 2004
Funding sources Grants
Related objective(s) 5.2

Woodsboro (Refugio County)

ACTION: Complete the Refugio County and all towns emergency plan

Hazard All
Background Texas DEM has revised the format for emergency plans and the county is working with those responsible for various parts of the plan to update it to present standards.
Benefits The county and all towns will have a DEM and FEMA approved plan which will result in a higher level of preparedness and response.
Priority Very high
Estimated cost \$5,000.00
Responsible organization Office of Emergency Management
Target completion date January 1, 2004
Funding sources General revenues
Related objective(s) 1.2

Woodsboro (Refugio County)

ACTION: Investigate the availability and cost to both operate and maintain an outdoor warning siren system

Hazard All
Background Refugio County and all towns rely on TV, radio, and some cable to disseminate warnings to the public.
Benefits Improved warnings to the majority of the county's population
Priority High
Estimated cost \$160,000.00
Responsible organization Office of Emergency Management
Target completion date January 1, 2007





Funding sources Grants, federal and/or state
Related objective(s) 4.2

Victoria County

Victoria County is in southeastern Texas on the Coastal Plain about midway between the southern and eastern extremities of the Texas Gulf Coast. Victoria, the county's largest town, is the county seat and is known as the “crossroads of South Texas” (120 miles from Houston, 102 miles from San Antonio, 110 miles from Austin, and 75 miles from Corpus Christi). Victoria County comprises 887 square miles of nearly level to gently rolling coastal prairie, most of which is covered with tall grasses, oak forest, huisache, mesquite, prickly pear, and other vegetation. The northwestern part of the county supports post oak, blackjack oak, elm, and pecan trees. The northeastern half of the county drains into Lavaca Bay, principally through Garcitas, Arenosa, and Placedo creeks, and the southwestern area is drained by the Guadalupe and San Antonio rivers and Coletto Creek.

Spanish explorers traversed the area in 1528 and established a settlement in 1722. Anglo-Americans arrived in 1836, when Victoria was among the original twenty-three counties established by the First Congress of the Republic of Texas 1836. Settlers began raising cattle and horses about 1750 and the major industries remained the raising of cattle, horses, and cotton until oil was discovered in the 1930s. Oil production in 1984 was 2,187,416 barrels, valued at \$57,449,254. Today, petrochemical plants, oil, manufacturing, agribusiness, and tourism support the economy.

Visitors enjoy fishing, hunting, saltwater activities, historic homes, parks, the zoo, and the annual Czech Heritage Festival in October.

Victoria County

ACTION: Identify sites where stream and rain gages need to be added or upgraded and coordinate installation requests with USGS and the Guadalupe-Blanco River Authority

Hazard	Flood
Background	An automated stream gauge is needed between Cuero and Victoria. The gauge at Dupont, below Victoria, needs to be replaced.
Benefits	Better monitoring of river levels in times of flooding
Priority	Medium
Estimated cost	\$25,000.00 per gauge





GUADALUPE-BLANCO RIVER AUTHORITY

Responsible organization Victoria County Floodplain Manager, in coordination with USGS and GBRA
Target completion date 2005
Funding sources Grants
Related objective(s) 5.3

Victoria County

ACTION: Re-route hazardous materials to alternate transportation routes outside the community

Hazard Hazmat/Pipeline incidents
Background Hazardous materials routinely traverse the heart of the city
Benefits Reduced vulnerability of population to hazardous materials exposure
Priority High
Estimated cost \$25,000.00
Responsible organization MPO
Target completion date 2005
Funding sources Grants and general revenue
Related objective(s) 5.2

Victoria County

ACTION: Send appropriate local officials to FEMA's Emergency Management Institute for continuing education, and to other sponsored training classes.

Hazard Multiple Hazards
Background Newly elected officials need competent background information to be able to make wise decisions
Benefits More educated and cost-efficient responses and emergency operations
Priority Medium
Estimated cost \$200.00 per person
Responsible organization Emergency Management
Target completion date 2005
Funding sources General Revenues
Related objective(s) 2.3



City of Victoria (Victoria County)

ACTION: Remove trees and brush in the floodplain along the Guadalupe River that have resulted from Hurricane Claudette and other disasters

Hazard	Multiple - fire, flooding
Background	Properties along the Guadalupe River have extensive amount of trees destroyed as a result of Hurricane Claudette. During the next major flood event these downed trees will cause log jams in the river and possible damage to water and wastewater plant facilities.
Benefits	Flood mitigation
Priority	Very high
Estimated cost	\$30,000,000
Responsible organization	City of Victoria
Target completion date	December 2004
Funding sources	Grants
Related objective(s)	5.2

City of Victoria (Victoria County)

ACTION: Install city-wide early warning siren system for all hazards

Hazard	Applies to all weather and man-made hazards
Background	The city only has EAS and "Reverse 9-1-1" to warn residents. These are not fast enough or reliable enough to warn everyone, particularly during a Haz-Mat spill.
Benefits	A siren system will more promptly warn all persons of weather and man-made hazards. In addition, more residents will be warned than "Reverse 9-1-1" and EAS combined.
Priority	Very high
Estimated cost	\$250,000
Responsible organization	City of Victoria
Target completion date	January 2005 (subject to receipt of federal or state funding)
Funding sources	City may be able to match funds (25%) if federal or some funding received.
Related objective(s)	4.2



City of Victoria (Victoria County)

ACTION: Improve emergency management radio interoperability, coverage and reception

Hazard Communication site failures; interoperability
Background Remote control needed for switching to alternate radio tower site. Our system is UHF-800 MHz. Surrounding areas are VHF-high band. Need cross-band repeaters and switches for radio interoperability.
Benefits Instant switching between tower sites in event of radio system failure. Interoperability for fire/EMS, law enforcement and public works.
Priority Very high - remote switching
 Medium - interoperability
Estimated cost \$500,000 total (\$250,000 - remote switching, \$250,000 - interoperability)
Responsible organization City of Victoria
Target completion date September 2005
Funding sources City, grants
Related objective(s) 1.2

City of Victoria (Victoria County)

ACTION: Provide alternate power supply (i.e., generators) for water and wastewater pumping facilities.

Hazard Multiple hazards
Background Following thunderstorms, floods, and hurricanes electrical power is often unavailable for water and wastewater pumping facilities. This contributes to sanitary sewer overflows and interruption of water supply. Reductions in pressure and the inability to pump water and wastewater compromise the public health.
Benefits Eliminates sanitary sewer overflows, reductions in water pressure, and drinking water supply interruption resulting from power outages.
Priority High
Estimated cost \$750,000 for water facilities
 \$1,000,000 for wastewater facilities
Responsible organization City of Victoria



Target completion date Subject to federal and/or state funding
Funding sources Grants
Related objective(s) 1.2

City of Victoria (Victoria County)

ACTION: Clear trees and shape levee in south Victoria.

Hazard Flood
Background The federal government (WPA) constructed a levee system in the south part of town during the 1930s. The levee system has had little maintenance since. The growth of large trees threatens the stability of the levee. The levee needs to be cleared and shaped back to its original cross-section.
Benefits Lower maintenance costs - frequent inspection
 Minimal damage to levee during floods
Priority High
Estimated cost \$5,000,000 - \$2,000,000
Responsible organization City of Victoria
Target completion date Subject to Federal, State and local funding
Funding sources Grants/annual general fund budget
Related objective(s) 5.2

City of Victoria (Victoria County)

ACTION: Buy out properties in floodway/floodplain in Victoria. *Subject to state, federal and local funding

Hazard Flood
Background About 500 homes are in the floodplain. After the 1998 flood, many homeowners rebuilt in the hazard areas.
Benefits Reduce damage, remove citizens from hazard area, and reduce emergency personnel response.
Priority High
Estimated cost \$15,000,000
Responsible organization City of Victoria
Target completion date Subject to Federal, State and local funding



GUADALUPE-BLANCO RIVER AUTHORITY

Funding sources Grants
Related objective(s) 5.1

City of Victoria (Victoria County)

ACTION: Establish a debris management plan for post-disasters

Hazard Multiple
Background Removal of debris from natural disasters needs to be a planned activity. Experience from two recent events could be analyzed and put into a plan.
Benefits Quicker mobilization after an event; better organized mobilization; prioritization of needs.
Priority High
Estimated cost \$50,000
Responsible organization City of Victoria
Target completion date June 2004, subject to receipt of Federal, State or local funding
Funding sources Grants, general revenues
Related objective(s) 5.2

City of Victoria (Victoria County)

ACTION: Retrofit police, fire, and EMS facilities to hazard-resistant levels.

Hazard Hurricane and tornado
Background Fire, EMS and police stations are vulnerable to high winds, which can damage communications, roofs, windows, and mechanical parts of facilities.
Benefits Hardened facilities. Lower maintenance and energy costs.
Priority High
Estimated cost \$500,000
Responsible organization City of Victoria
Target completion date June 1, 2005 (subject to federal or state funding)
Funding sources City may be able to match funds (25%) if federal or state funding received
Related objective(s) 5.2

