

# Section 18. Previously Implemented Mitigation Actions

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## Federal Emergency Management Agency Programs

The effectiveness of previously implemented hazard mitigation measures was examined as part of the hazard mitigation planning process. The effectiveness of each previously implemented mitigation program was evaluated based on its effect on overall risk to life and property, ease of implementation, and political and community support.

A total of 17 presidential and 22 Small Business Administration disaster declarations have been issued since 1961 for jurisdictions in the Guadalupe River basin, paving the way for assistance by the Federal Emergency Management Agency and other federal agencies.<sup>1</sup> FEMA’s Individual Assistance Program helps disaster victims to secure temporary housing, low-interest loans, unemployment assistance, and legal aid; makes grants to low-income individuals; conducts crisis counseling; and assists victims with income tax, social security, and veteran’s benefits issues. Information was

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<sup>1</sup> U.S. Federal Emergency Management Agency  
*Hazard Mitigation in the Guadalupe River Basin –  
Protecting the Region Against All Hazards*





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supplied by the state about 362 separate public assistance projects from DR 1257 that have been undertaken in GBRA jurisdictions, totaling \$9,275,585.62.<sup>2</sup> The information is available on request.

“Public Assistance” is defined as aid to state or local governments to pay part of the approved costs (generally 75 percent) of rebuilding a community’s damaged infrastructure. Public assistance may include debris removal; emergency protective measures; repair, replacement, or restoration of damaged public property; loans needed by communities to restore essential government functions; and grants for public schools.

Through the Hazard Mitigation Grant Program (HMGP), FEMA has financially helped the state to permanently reduce or eliminate future damages and losses due to natural hazards. HMGP funds promote safer building practices that improve existing structures and supporting infrastructure. The HMGP currently provides post-disaster funds, which can be used anywhere in the state, equal to 7.5 percent of obligations<sup>3</sup> for individual and public assistance. Grants are for planning and projects, including acquisition of real property, relocation and demolition of structures, seismic retrofitting, strengthening of existing structures, initial implementation of vegetative management programs, elevation of residential structures, elevation or dry flood-proofing of non-residential structures, and other activities that bring a structure into compliance with the floodplain management requirements of the National Flood Insurance Program. A review of the HMGP records reveals no hazard mitigation projects conducted within the GBRA jurisdictions.

Five Hurricane Preparedness Program – Mitigation (HPP-M) grants have been provided to jurisdictions in the Guadalupe River Basin. They are identified in Table 18-1 below.

**Table 18-1. Hurricane Preparedness Program–Mitigation Grant Projects in the Guadalupe River Basin**

County	Date Completed	Amount	Purpose	Evaluation of Effectiveness
Calhoun	2/27/98	\$11,202	Auxiliary power connections for sanitary sewer lift stations	Effective in reducing risk
Calhoun	10/10/97	\$14,976	Installation of Electric Hurricane Shutters at Courthouse	Effective in reducing risk

<sup>2</sup> Texas Department of Public Safety, Division of Emergency Management

<sup>3</sup> Prior to Fiscal Year 2003, the HMGP provided funding equal to 15 percent of obligations for individual and public assistance.



County	Date Completed	Amount	Purpose	Evaluation of Effectiveness
Calhoun	9/13/99	\$20,000	Installation of 10 hurricane shutters at Police Department	Effective in reducing risk
Victoria	6/11/01	\$15,750	Replace glass windows with Lexan in the EOC	Effective in reducing risk
Victoria	9/26/01	\$6,075	Protection of generator and power transfer switch and to anchor roof top air conditioner at alternate EOC	Effective in reducing risk

Source: Texas Division of Emergency Management



# U.S. Army Corps of Engineers' Studies, Plans, and Projects

The U.S. Army Corps of Engineers recently conducted a Section 905(b) Analysis as an initial response to the Guadalupe and San Antonio Rivers and Tributaries, Texas, resolution adopted by the Committee on Transportation and Infrastructure, U.S. House of Representatives, House Resolution docket 2547 dated 11 March 1998. The Reconnaissance Study and subsequent 905(b) Analysis investigated potential improvements in the interest of flood damage reduction, environmental restoration and protection, water quality, water supply, and allied purposes on the Guadalupe and San Antonio Rivers in Texas.

The purpose of the reconnaissance phase study is to determine if there is a Federal (Corps) interest in participating in a cost-shared Feasibility Study for the purposes of providing flood damage reduction, ecosystem restoration, watershed management, and more effective water management within the Guadalupe and San Antonio River basin areas. In addition, water supply opportunities were also investigated as part of the study authority. The Reconnaissance Study was initiated on March 01, 2000. The findings of this Reconnaissance Study demonstrate a Federal interest in continuing the study into the Feasibility phase. The purpose of this Section 905(b) Analysis is to document the basis for these findings and identify Federal interest and sponsor support to justify proceeding into the Feasibility Phase.

A Feasibility Study can be initiated if Federal interest is demonstrated, sponsor support is obtained through signature of the Federal Cost Sharing Agreement (FSCA), and Federal and local funding are obtained. The Feasibility Study will expand on the preliminary analyses conducted during the reconnaissance study by collecting additional data and completing more detailed engineering and technical analyses. The intent of the Feasibility Study is to more thoroughly assess the water resource needs, problems, and opportunities identified in the Reconnaissance Study, evaluate a wide range of alternatives, and select a plan from those alternatives, which is technically sound, economically feasible, and environmentally acceptable, and supported by the sponsors and the Federal Government.

Numerous technical reports have been published that document prior water related investigations in the Guadalupe-San Antonio River Basin areas. These reports are of both federal and non-federal origin. Some of the reports are as follows:



- 1) Report on Survey of Guadalupe and San Antonio Rivers and Tributaries, Texas for Flood Control and Allied Purposes by the Corps of Engineers, U.S. Army, Fort Worth District. 1950.
- 2) Upstream Flood Prevention and Water Resources Development in the Guadalupe River Basin by the Soil Conservation Service, U.S. Department of Agriculture. 1960.
- 3) Plan of Survey for Review of Reports on the Guadalupe and San Antonio Rivers, FC Continuing Guadalupe-San Antonio Rivers Basin, Texas by the Corps of Engineers, U.S. Army, Fort Worth District. 1969.
- 4) Blanco River and San Marcos River and its Tributaries in the Vicinity of San Marcos, Texas by the Corps of Engineers, U.S. Army, Fort Worth District. 1971.
- 5) Special Report on San Antonio-Guadalupe River Basin Study by the Corps of Engineers, U.S. Army, Fort Worth District. 1978.
- 6) South Central Texas Regional Water Planning Area: Initially Prepared Regional Water Plan, Vol. 1, Executive Summary and Regional Water Plan by HDR Engineering, Inc. 2000.
- 7) Water for Texas, Trans-Texas Water Program West Central Study Area Phase II by HDR Engineering. 1998.
- 8) Water Resource Development in Texas, U.S. Army Corps of Engineers, 1995.

## State Mitigation Programs

The Texas Water Development Board (TWDB) administers the FEMA Flood Mitigation Assistance Program (FMAP), which provides planning and project grants aimed at reducing the number of structures that have incurred repetitive losses and are insured through the National Flood Insurance Program. FMAP Planning grants may be used to develop or update Flood Mitigation Plans. Project grants may be used to mitigate insured structures by activities such as acquiring structures and real property, dry floodproofing, and elevating structures and structure elements. Only activities specified in a FEMA-approved Flood Mitigation Plan are eligible for project grants. Table 18-2 shows the FMAP grants in the Guadalupe River Basin.



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TWDB Flood Protection Planning Grants provide State funds for regional flood protection planning, considering the needs of the entire watershed, including upstream or downstream effects of proposed solutions. Eligible activities under Flood Protection Planning include studies and analyses to identify problems resulting from or relating to flooding; determine views and needs of the affected public; identify potential solutions; estimate benefits and costs of potential solutions, including structural and nonstructural measures; evaluate environmental, social, and cultural factors; and recommend feasible solutions to flooding. Table 18-3 shows the Flood Protection Planning Grants provided to jurisdictions in the Guadalupe River Basin through the TWDB.

**Table 18-2. FEMA Flood Mitigation Assistance Program Grants in the Guadalupe River Basin, administered through the TWDB**

FEMA Flood Mitigation Program			
County/ Contractor	Fiscal Year	Commitment Amount	Evaluation of Effectiveness
Victoria Victoria, City of	90	\$134,250.00	Effective in reducing risk
Victoria Victoria, City of	94	\$96,250.00	Effective in reducing risk
Hays Woodcreek, City of	2000	\$19,300.00	Effective in reducing risk

**Table 18-3. TWDB Flood Protection Planning Grants in the Guadalupe River Basin**

Contract No.	Contractor Name	Description	Commit- ment Amount	FY Commit- ment
90483777	City of Victoria	City of Victoria	\$134,250.00	90
90483777	City of Victoria	City of Victoria	96,250.00	94
	Gonzales	Planning Grant	28,950	2000



2000483357	Comal County	Flood protection study for the entire Dry Comal Creek/Comal River watershed in Comal and a small portion located in Guadalupe County.	25,713	2000
2000483360	City of Woodcreek	Flood protection study for Hog Creek watershed from the mouth of the Cypress Creek through the City of Woodcreek into unincorporated areas of Hays County	19,300	2000

## Previous Planning Efforts

A number of jurisdictions in the Guadalupe River Basin have undertaken previous planning efforts. As shown in Table 18-4, five jurisdictions have received Emergency Management Performance Grants (EMPG) from FEMA. These grants are intended to help develop comprehensive, all-hazards emergency management and improve local capabilities for emergency planning, preparedness, mitigation, response, and recovery. Assistance includes grant funding covering 13 key functional areas, including laws and authorities; hazard identification and risk assessment; hazard management; resource management; planning; direction, control, and coordination; communications and warning; operations and procedures; logistics and facilities; training; exercises; public education and information; and finance and administration.

A number of jurisdictions in the Guadalupe River Basin have also undertaken previous planning efforts that have complemented the basin-wide planning conducted during the development of this Hazard Mitigation Action Plan. These other related planning efforts include development of hazard analyses, Annex P, comprehensive plans, capital improvement plans, drainage and stormwater plans, long-range growth plans and flood mitigation plans. Table 18-5 details these previous planning efforts.



**Table 18-4. Previous Planning Efforts of Guadalupe River Basin Jurisdictions**

Jurisdiction	Received EM Grant Funds?	Hazard Mitigation Plan	Other Planning Efforts Undertaken (list)
<b>Upper Basin</b>			
<b>Kendall County</b>			
Kendall County	Y	Y	Disaster recovery plan Stormwater management plan Emergency operations plan Continuity of operations plan Radiological emergency plan SARA Title III plan Transportation plan Historic preservation plan, Sept. 1993 Subdivision ordinance, 1997
City of Boerne	N	Y	Comprehensive plan Floodplain management plan Disaster recovery plan Stormwater management plan Emergency operations plan Continuity of operations plan Radiological emergency plan SARA Title III plan Transportation plan Historic preservation plan Zoning ordinance Subdivision ordinance, 1997





Jurisdiction	Received EM Grant Funds?	Hazard Mitigation Plan	Other Planning Efforts Undertaken (list)
<b>Middle Basin</b>			
<b>Caldwell County</b>			
Caldwell County	N	Y	Hazard mitigation plan (meets DEM and FEMA requirements) Floodplain management plan, adopted 1982, amended 1999 Emergency operations plans, adopted 2002 (FEMA and DEM Basic Plan) Radiological emergency plan (date not given) Subdivision ordinance adopted October 1999 Flood damage prevention ordinance (date not given)
City of Lockhart	N	N	Emergency operations plan adopted 1995, updated 2003 Transportation plan as part of comprehensive plan adopted 2000 Historic preservation ordinance, September 1993 Zoning ordinance, 1969 Subdivision ordinance, 1985 Flood damage prevention ordinance, 1985
City of Luling	N	N	Zoning ordinance adopted Oct 1969 Subdivision ordinance adopted Sept 1985 Flood damage prevention ordinance adopted Oct 1998
City of Martindale			



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Jurisdiction	Received EM Grant Funds?	Hazard Mitigation Plan	Other Planning Efforts Undertaken (list)
<b>DeWitt County</b>			
DeWitt County	Y	N	Disaster recovery plan Emergency operations plan adopted Sep 1983, amended Feb 2000 COOP included in EO plan Radiological emergency plan (annex D to EO plan) Capital improvements plan Subdivision ordinance, May 1974 Flood damage prevention court order, July 2002
City of Cuero	N	N; but Committee formed Mar 2003	Comprehensive plan (limited to economic development and infrastructure—date not given) Emergency operations plan adopted 1983; amended Feb 2000 COOP adopted 1983; amended Feb 2000 SARA Title II plan (for evacuation and containment only – no date given) Participation with the Golden Crescent Regional Planning Commission Subdivision ordinance (no date given) Flood damage prevention ordinance, may 1987
City of Nordheim			



Jurisdiction	Received EM Grant Funds?	Hazard Mitigation Plan	Other Planning Efforts Undertaken (list)
City of Yoakum	N	Y, Aug 2001	Disaster recovery plan Comprehensive plan Floodplain management ordinance adopted 1987 Stormwater management plan Emergency operations plan adopted Jan 2001, amended March 2003 COOP, adopted Jan 2001 Radiological emergency plan adopted Jan 2001 Transportation plan adopted Jan 2001 Participation in local COG Zoning ordinance adopted Dec 1973 Subdivision ordinance adopted Sep 1971 Flood damage prevention ordinance adopted July 1987
City of Yorktown	N	N	Floodplain management plan 1974 Emergency operations plan enacted 1983, updated Feb 2000 COOP, 1983 SARA Title III, no date given Subdivision ordinance, no date given Flood damage prevention ordinance, no date given
<b>Gonzales County</b>			
Gonzales County	N	N	Floodplain management plan (date not given)
City of Gonzales	N	Y (flood)	Floodplain management plan (date not given) Participation in COG regional meetings Zoning ordinance (no date given) Subdivision ordinance, Nov 1961 Flood damage prevention ordinance, Nov 2001
City of Nixon			
City of Waelder			



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Jurisdiction	Received EM Grant Funds?	Hazard Mitigation Plan	Other Planning Efforts Undertaken (list)
<b>Lower Basin</b>			
<b>Calhoun County</b>			
Calhoun County	Y	Y	Disaster recovery plan adopted Apr 1995, reviewed April 2000 Emergency operations plan adopted June 1993, amended 2002 Radiological emergency plan is awaiting final approval for adoption SARA Title III plan is Annex Q to Basic Plan adopted May 1992, reviewed March 2000 Transportation plan adopted Feb. 1994, reviewed March 2000 Capital Improvements Plan (date not given) Participation in Golden Crescent Regional Planning Commission Subdivision Ordinance adopted Oct 1986 Flood damage prevention ordinance last amended Jan 2002
City of Point Comfort			
City of Port Lavaca			
City of Seadrift	N	N	
<b>Refugio County</b>			
Refugio County	N	N	None
City of Austwell	N	N	
City of Bayside	N	N	
Town of Refugio	N	N	
City of Woodsboro	N	N	



Jurisdiction	Received EM Grant Funds?	Hazard Mitigation Plan	Other Planning Efforts Undertaken (list)
<b>Victoria County</b>			
Victoria County	Y	Y	Disaster recovery plan included in the EM Plan, updated 2002 Comprehensive master plan, "Victoria City/County Emergency Management Plan" Emergency operations plan, no date given COOP included in EO plan Radiological emergency plan annexed to EO plan Capital improvements plan Participation in Metropolitan Planning Organization Subdivision ordinance Flood damage prevention ordinance adopted Mar 1979
City of Victoria	Y	Y	Victoria City/County Emergency management plan last updated 2002 Emergency operations plan updated 2002 Radiological emergency plan annexed to the Emergency operations plan Capital improvements plan Participation in Metropolitan Planning Organization Participation in FEMA Hazard Mitigation Program Subdivision ordinance adopted by Commissioners' Court (date not given) Flood damage prevention ordinance adopted March 1979



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# Building and Fire Codes

Table 18-5. Building Codes

Jurisdiction	Current Building Code							
	Effective Date <sup>4</sup>	Name	Type					Amendments made (Y/N)
			UBC	NBC	SBC	IBC	Other	
<b>Upper Basin</b>								
<b>Kendall County</b>								
Kendall County	NA							
City of Boerne	Has a code; date not given	Not given	Not given	X				
<b>Middle Basin</b>								
<b>Caldwell County</b>								
Caldwell County	NA							
City of Lockhart	January 2003	International Building Code				X		Y; minor changes
City of Luling	July 2001	SBCCI			X			
City of Martindale	Has a code; date unknown	SBCCI						N
<b>DeWitt County</b>								
DeWitt County	NA							
City of Cuero	2000	IBC				X		N
City of Nordheim	NA							
City of Yoakum	1967; amended 2000	SBC in 1967; and amended to IBC in 2000				X		Y, to also adopt IBC

<sup>4</sup> "NA" in this column indicates that the jurisdiction has not enacted a building code.



Jurisdiction	Current Building Code							
	Effective Date <sup>4</sup>	Name	Type					Amendments made (Y/N)
			UBC	NBC	SBC	IBC	Other	
City of Yorktown	City has a code, but no date given				X			N
<b>Gonzales County</b>								
Gonzales County	NA							
City of Gonzales	Apr 1987	2000 ICC				X		N
City of Nixon								
City of Waelder	1975	Unknown						N
<b>Lower Basin</b>								
<b>Calhoun County</b>								
Calhoun County	Not given	IBC; International Residence Code				X		Not stated
City of Point Comfort	Yes; date not known	SBCCI			X			N
City of Port Lavaca								
City of Seadrift	Not given	SBC			X			N
<b>Refugio County</b>								
Refugio County	NA							
City of Austwell								
City of Bayside								
Town of Refugio	None given	Town has a code, name unknown			?			?
City of Woodsboro	NA							
<b>Victoria County</b>								



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Jurisdiction	Current Building Code							Amendments made (Y/N)
	Effective Date <sup>4</sup>	Name	Type					
			UBC	NBC	SBC	IBC	Other	
Victoria County	NA							
City of Victoria	NA							

## Fire Codes

Fire codes are laws, ordinances, or government regulations that set forth standards and requirements for the construction, maintenance, operation, occupancy, use, or appearance of buildings, premises, and dwelling units in order to prevent damage and loss of life from fire hazards.

There are three principal types of fire codes, promulgated by various code organizations. They are:

- Uniform Fire Code (UFC), published by the International Fire Code Institute,
- International Fire Code (IFC), published by the International Code Council, and
- Standard Fire Code (SFC), published by the SBCC.

The fire codes are periodically reviewed and revised by the relevant organizations, as appropriate, when new requirements and materials are introduced. Local governments have adopted these codes either in their entirety or amended them as appropriate to their local conditions.

Table 18-6 shows the effective date of each jurisdiction’s fire code, the name of the code, the type of code on which it is based, and whether any amendments have been made. Only the cities participating in the Coalition have the authority to adopt fire codes; counties do not have such authority.





**Table 18-6. Fire Codes of GBRA Jurisdictions**

Jurisdiction	Current Fire Code					
	Effective Date <sup>5</sup>	Name	Type			
			UFC	IFC	SFC	Other
<b>Upper Basin</b>						
<b>Kendall County</b>						
Kendall County	NA					
City of Boerne	Date not given	Name not given but the city has a fire code	Type not given			
<b>Middle Basin</b>						
<b>Caldwell County</b>						
Caldwell County	NA					
City of Lockhart	Jan 2003	International Fire Code (also Life Safety Code)		X		
City of Luling	1992	Standard Fire Prevention Code, 1999			X	
City of Martindale	NA (Caldwell Co. does fire inspections)					
<b>DeWitt County</b>						
DeWitt County	NA					
City of Cuero		None, but city follows NFPA guidelines				
City of Nordheim	NA					

<sup>5</sup> “NA” in this column indicates that the jurisdiction responded but has no fire code. If the column is blank, the jurisdiction did not respond.



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Jurisdiction	Current Fire Code					
	Effective Date <sup>5</sup>	Name	Type			
			UFC	IFC	SFC	Other
City of Yoakum	1967; amended 2000	SFC in 1967; amended to IFC in 2000; Fire Protection and Prevention Ordinance		X		
City of Yorktown	1999	National Fire Code	Type not given			
<b>Gonzales County</b>						
Gonzales County	NA					
City of Gonzales	Apr 1987	International Fire Code		X		
City of Nixon						
City of Waelder	NA					
<b>Lower Basin</b>						
<b>Calhoun County</b>						
Calhoun County	There is no county code but cities within the county have fire codes					
City of Point Comfort	NA					
City of Port Lavaca						
City of Seadrift		None				
<b>Refugio County</b>						
Refugio County		None				
City of Austwell						
City of Bayside						
Town of Refugio						
City of Woodsboro	NA					



Jurisdiction	Current Fire Code					
	Effective Date <sup>5</sup>	Name	Type			
			UFC	IFC	SFC	Other
<b>Victoria County</b>						
Victoria County	NA (The county enforces the state fire codes)	Life Safety 101				X
City of Victoria	NA					

## Inspection and Permitting Processes

Table 18-7. Building Inspections and Permitting

Jurisdiction	Number of:				
	Building Inspectors (FTEs) <sup>6</sup>	Inspectors Certified	Years Experience (Average)	Building Starts (last 12 months)	Inspections (last 12 months)
<b>Upper Basin</b>					
<b>Kendall County</b>					
Kendall County					
City of Boerne					
<b>Middle Basin</b>					
<b>Caldwell County</b>					
Caldwell County	NA				
City of Lockhart	2	2	24	111	642
City of Luling <sup>7</sup>	1			9	

<sup>6</sup> “NA” in this column indicates that the jurisdiction has no building code.

<sup>7</sup> All applications for building and/or certificates of occupancy are reviewed for current floodplain ordinance compliance, building code compliance, and compliance with other adopted codes regarding health, safety, and



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Jurisdiction	Number of:				
	Building Inspectors (FTEs) <sup>6</sup>	Inspectors Certified	Years Experience (Average)	Building Starts (last 12 months)	Inspections (last 12 months)
City of Martindale	One contractor from An Antonio used part-time, as needed, by city	Y	20+	Average 20	
<b>DeWitt County</b>					
DeWitt County	NA				
City of Cuero	1	0	0	6	203
City of Nordheim	NA				
City of Yoakum	3	3	10	7 res., 3 comm., 1 ind.; 118 additions or renovations	125
City of Yorktown	3	0	25	0	0
<b>Gonzales County</b>					
Gonzales County					
City of Gonzales	1	1	30	20	380
City of Nixon					
City of Waelder	Utility manager (25 years experience) checks water/sewer/fire. City expressed need for enforcement officer.				
<b>Lower Basin</b>					
<b>Calhoun County</b>					
Calhoun County	0				
City of Point Comfort	Part-time inspector used as needed	Y	25+	Average 0-5. Little new building in city	

welfare. Substantially improved structures and all new structures are not allowed to build in the floodplain below the established BFE.



Jurisdiction	Number of:				
	Building Inspectors (FTEs) <sup>6</sup>	Inspectors Certified	Years Experience (Average)	Building Starts (last 12 months)	Inspections (last 12 months)
City of Port Lavaca					
City of Seadrift	0	0	5-10	Not given	Not given
<b>Refugio County</b>					
Refugio County	NA				
City of Austwell					
City of Bayside					
Town of Refugio	1 (water-sewer only)	Unknown	Unknown	+/- 5	Unknown
City of Woodsboro	NA. Very few housing starts. Homes are self-inspected. No ordinance/inspections done by city.				
<b>Victoria County</b>					
Victoria County	NA				
City of Victoria	NA				



**Table 18-8. Fire Inspections and Permitting**

Jurisdiction	Number of:				
	Fire Inspectors (FTEs) <sup>8</sup>	Inspectors Certified	Completed State Certification Course	Years Experience (average)	Inspections (last 12 months)
<b>Upper Basin</b>					
<b>Kendall County</b>					
Kendall County	NA				
City of Boerne	Not given	2	2	Not given	480
<b>Middle Basin</b>					
<b>Caldwell County</b>					
Caldwell County	1	1	1	1	14 (only foster homes and day care facilities are inspected)
City of Lockhart	3	3	3	8, inspectors; 22, fire service	142 code insp.; 101 company insp.
City of Luling	1			4	11
City of Martindale	NA				
<b>DeWitt County</b>					
DeWitt County	NA				
City of Cuero	0; fire marshal conducts inspections	0	0	5	16
City of Nordheim	NA				
City of Yoakum	1 half-time	0	0	0	0
City of Yorktown	1 (fire marshal)	1	1	12	4

<sup>8</sup> "NA" in this column indicates that the jurisdiction has no building code.



Jurisdiction	Number of:				
	Fire Inspectors (FTEs) <sup>8</sup>	Inspectors Certified	Completed State Certification Course	Years Experience (average)	Inspections (last 12 months)
<b>Gonzales County</b>					
Gonzales County					
City of Gonzales	1 (fire marshal)	1	1	33	30
City of Nixon					
City of Waelder	NA, but City has volunteer fire department.				
<b>Lower Basin</b>					
<b>Calhoun County</b>					
Calhoun County	0				
City of Point Comfort	Inspections are handled by volunteer fire dept. through County				
City of Port Lavaca					
City of Seadrift	0				
<b>Refugio County</b>					
Refugio County	1	1	1	15	10
City of Austwell					
City of Bayside					
Town of Refugio	Unknown	1	1	+/- 15	+/- 12
City of Woodsboro	NA				
<b>Victoria County</b>					
Victoria County	1-fire marshal	1	1	17	90
City of Victoria	1-fire marshal	1	1	17	90







# Building Code Effectiveness Grading Schedules and Fire Ratings

The Insurance Services Office maintains Building Code Effectiveness Grading (BCEG) ratings and Public Protection Classification (PPC) ratings. The latter gauge the capacity of the local fire department to respond if flames engulf a property. PPC ratings are recorded for each individual street address in Texas.

There are 10 classes of ratings in BCEG schedule. Class 1 is the best rating, i.e., strongest program of building code enforcement, and 10 is the lowest rating. The date identified is the date of the rating by ISO. This rating applies to all structures built after that date and can lead to lower insurance rates.

**Table 18-9. Community Mitigation Classifications  
As of July 1, 2003**

County	Community	PPC - Fire Grading Classification	BCEGS ( <i>Building Code Effectiveness Grading Schedule</i> ) for Personal Property (Single Family Dwelling)	BCEGS ( <i>Building Code Effectiveness Grading Schedule</i> ) for Commercial Property	Date of Rating
<b>Upper Basin</b>					
Kendall	Boerne	4	06	06	1996
<b>Middle Basin</b>					
Caldwell	Lockhart	4	05	05	2000
	Luling	5	05	05	1996
	Martindale	8/9	Primary fire department response is provided by the Martindale Fire Dept.		
DeWitt	Cuero	5	99 - Jurisdiction has declined to participate in the BCEGS Program.		1997





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County	Community	PPC - Fire Grading Classification	BCEGS (Building Code Effectiveness Grading Schedule) for Personal Property (Single Family Dwelling)	BCEGS (Building Code Effectiveness Grading Schedule) for Commercial Property	Date of Rating
	Nordheim	8	99 - No recognized building code enforcement program exists.		1996
	Yoakum	5	05	05	1997
	Yorktown	7	99 - Jurisdiction has declined to participate in the BCEGS Program.		1997
Gonzales	Gonzales	6	05	05	1996
	Nixon	6	99 - Personal lines building code program exists, but it is outside the scope of the BCEGS Program.	09	1996
	Smiley	7	99 - No recognized building code enforcement program exists.		1996
	Waelder	6	Primary fire department response is provided by the Waelder Fire Dept.		
<b>Lower Basin</b>					
Calhoun County	Point Comfort	5	Primary fire department response is provided by the Point Comfort Fire Dept. Recognized automatic aid response is provided to the entire graded area by the Port Lavaca Fire Dept.		
	Port Lavaca	4	06	06	1996
	Seadrift	7	Primary fire department response is provided by the Seadrift Fire Dept.		
Refugio County	Bayside	**	Primary fire department response is provided by the Bayside FD Fire Dept.		
	Refugio	5	99 - No recognized building code enforcement program exists.		1996
	Woodsboro	7	99 - No recognized building code enforcement program exists.		1996
	Austwell				



County	Community	PPC - Fire Grading Classification	BCEGS (Building Code Effectiveness Grading Schedule) for Personal Property (Single Family Dwelling)	BCEGS (Building Code Effectiveness Grading Schedule) for Commercial Property	Date of Rating
Victoria County	Victoria	4	99 - Personal lines building code program exists, but it is outside the scope of the BCEGS Program.	07	1996

## Floodplain Management Ordinances

Table 8-10 below describes the floodplain management ordinances currently in use in the Guadalupe River Basin.

Additional data for the following table will be provided when received from the GBRA jurisdictions.

**Table 18-10. Floodplain Management Information**

Question	Y/N	Number	Describe/Explain
<b>Kendall County</b>			
Flood-damage prevention ordinance?	N		
Describe inspection and permitting processes for floodplain management.	NA		
Floodplain management team have an administrator?	Y		
How many members on FP mgmt. team?			No response given
How many flood inspections in the last 12 months?		0	
How many variances granted last 12 months?		0	
Ordinance includes a freeboard requirement	N		



GUADALUPE-BLANCO RIVER AUTHORITY

Question	Y/N	Number	Describe/Explain
for new construction in the floodplain?			
What is the freeboard requirement?	NA		
Ordinance includes a “substantial damage” provision?	N		
Is the ordinance effective for reducing flood risks?	Y		Level of effectiveness not given
<b>City of Boerne</b>			
Flood-damage prevention ordinance?	N		
Describe inspection and permitting processes for floodplain management.	NA		
Floodplain management team have an administrator?	Y		
How many members on FP mgmt. team?			No response given
How many flood inspections in the last 12 months?		0	
How many variances granted last 12 months?		0	
Ordinance includes a freeboard requirement for new construction in the floodplain?	N		
What is the freeboard requirement?	NA		
Ordinance includes a “substantial damage” provision?	N		
Is the ordinance effective for reducing flood risks?	Y		Level of effectiveness not given
<b>Caldwell County</b>			
Flood-damage prevention ordinance?	Y		
Describe inspection and permitting processes for floodplain management.			No description given
Floodplain management team have an administrator?	Y		
How many members on FP mgmt. team?			Number not given
How many flood inspections in the last 12 months?			This, and all questions below, were answered “Yes” by the Caldwell County respondent
How many variances granted last 12 months?			
Ordinance includes a freeboard requirement for new construction in the floodplain?			
What is the freeboard requirement?			



Question	Y/N	Number	Describe/Explain
Ordinance includes a “substantial damage” provision?			
Is the ordinance effective for reducing flood risks?			
<b>City of Lockhart</b>			
Flood-damage prevention ordinance?	Y		Enacted 1985
Describe inspection and permitting processes for floodplain management.			Inspection handled through building permit process
Floodplain management team have an administrator?	Y		City Planner served as FP manager
How many members on FP mgmt. team?			
How many flood inspections in the last 12 months?		?	
How many variances granted last 12 months?		0	
Ordinance includes a freeboard requirement for new construction in the floodplain?	Y		
What is the freeboard requirement?			1 foot
Ordinance includes a “substantial damage” provision?	N		
Is the ordinance effective for reducing flood risks?			Low
<b>City of Luling</b>			
Flood-damage prevention ordinance?	Y		Enacted October 8, 1998
Describe inspection and permitting processes for floodplain management.			All applications for building and/or certificates of occupancy are reviewed for current floodplain ordinance compliance, building code compliance, and compliance with other adopted codes regarding health, safety, and welfare. New structures are not allowed to be built, and substantial improvements to existing structures are not allowed to be made, in the floodplain below the established BFE.



GUADALUPE-BLANCO RIVER AUTHORITY

Question	Y/N	Number	Describe/Explain
Floodplain management team have an administrator?	Y		
How many members on FP mgmt. team?		0-1	
How many flood inspections in the last 12 months?		9	
How many variances granted last 12 months?		0	
Ordinance includes a freeboard requirement for new construction in the floodplain?	N		
What is the freeboard requirement?			Ditto
Ordinance includes a “substantial damage” provision?			Substantial damage is identified and included in review of permit process
Is the ordinance effective for reducing flood risks?			Several areas of new development required augmentation of studies and corrective action in construction within the community.
<b>City of Martindale</b>			
Flood-damage prevention ordinance?			
Describe inspection and permitting processes for floodplain management.			
Floodplain management team have an administrator?			
How many members on FP mgmt. team?			
How many flood inspections in the last 12 months?			
How many variances granted last 12 months?			
Ordinance includes a freeboard requirement for new construction in the floodplain?			
What is the freeboard requirement?			
Ordinance includes a “substantial damage” provision?			
Is the ordinance effective for reducing flood risks?			
<b>DeWitt County</b>			
Flood-damage prevention ordinance?	Y		Enacted July 2002
Describe inspection and permitting processes for floodplain management.			SA development permit is required. Application for



Question	Y/N	Number	Describe/Explain
			development permit is presented along with plans showing the location, dimensions, and elevation of proposed structures and location in relation to SFHAs. Information is required on elevation of the lowest floor of all new and substantially improved structures; elevation to which any non-residential structure shall be floodproofed; a certificate from a registered professional engineer or architect that the nonresidential floodproofed structure shall meet floodproofing criteria; description of the extent to which any watercourse or natural drainage will be altered or relocated.
Floodplain management team have an administrator?	Y		
How many members on FP mgmt. team?		1	
How many flood inspections in the last 12 months?		10	
How many variances granted last 12 months?		0	
Ordinance includes a freeboard requirement for new construction in the floodplain?	Y		
What is the freeboard requirement?			Builders are advised to elevate higher than the BFE for better protection during floods
Ordinance includes a “substantial damage” provision?	N		
Is the ordinance effective for reducing flood risks?	Y		Moderate. Homes are less likely to flood when elevated to court order requirements.
<b>City of Cuero</b>			
Flood-damage prevention ordinance?	Y		
Describe inspection and permitting processes			Each building permit is reviewed



GUADALUPE-BLANCO RIVER AUTHORITY

Question	Y/N	Number	Describe/Explain
for floodplain management.			to determine if the location is within the floodplain.
Floodplain management team have an administrator?	Y		The City Manager is the Administrator and only team member
How many members on FP mgmt. team?		1	
How many flood inspections in the last 12 months?		0	
How many variances granted last 12 months?		0	
Ordinance includes a freeboard requirement for new construction in the floodplain?	N		
What is the freeboard requirement?	NA		
Ordinance includes a “substantial damage” provision?	N		
Is the ordinance effective for reducing flood risks?			Moderate
<b>City of Nordheim</b>			
Flood-damage prevention ordinance?			
Describe inspection and permitting processes for floodplain management.			
Floodplain management team have an administrator?			
How many members on FP mgmt. team?			
How many flood inspections in the last 12 months?			
How many variances granted last 12 months?			
Ordinance includes a freeboard requirement for new construction in the floodplain?			
What is the freeboard requirement?			
Ordinance includes a “substantial damage” provision?			
Is the ordinance effective for reducing flood risks?			
<b>City of Yoakum</b>			
Flood-damage prevention ordinance?	Y		Enacted July 14, 1987
Describe inspection and permitting processes for floodplain management.			The ordinance requires elevation certificates to be completed by





Question	Y/N	Number	Describe/Explain
			surveyors
Floodplain management team has an administrator?	Y		The administrator is the only team member. Very little activity in the floodplain.
How many members on FP mgmt. team?		1	
How many flood inspections in the last 12 months?		2	Elevation certificates
How many variances granted last 12 months?	NA		
Ordinance includes a freeboard requirement for new construction in the floodplain?	Y		
What is the freeboard requirement?			1 foot
Ordinance includes a “substantial damage” provision?	N		
Is the ordinance effective for reducing flood risks?	Y		Moderate. Very few structures in the floodplain.
<b>City of Yorktown</b>			
Flood-damage prevention ordinance?	Y		
Describe inspection and permitting processes for floodplain management.			No permits are issued. Inspections are conducted annually.
Floodplain management team have an administrator?	Y		
How many members on FP mgmt. team?		1	
How many flood inspections in the last 12 months?		1	
How many variances granted last 12 months?		0	
Ordinance includes a freeboard requirement for new construction in the floodplain?	N		
What is the freeboard requirement?	NA		
Ordinance includes a “substantial damage” provision?	N		
Is the ordinance effective for reducing flood risks?			High
<b>Gonzales County</b>			
Flood-damage prevention ordinance?	N		
Describe inspection and permitting processes for floodplain management.			None
Floodplain management team have an	NA		



GUADALUPE-BLANCO RIVER AUTHORITY

Question	Y/N	Number	Describe/Explain
administrator?			
How many members on FP mgmt. team?	NA		
How many flood inspections in the last 12 months?	NA		
How many variances granted last 12 months?	NA		
Ordinance includes a freeboard requirement for new construction in the floodplain?	N		
What is the freeboard requirement?	NA		
Ordinance includes a “substantial damage” provision?	Y		
Is the ordinance effective for reducing flood risks?			Low
<b>City of Gonzales</b>			
Flood-damage prevention ordinance?	Y		Enacted November 2001
Describe inspection and permitting processes for floodplain management.			If development permit is approved, then building permit is issued
Floodplain management team have an administrator?	Y		
How many members on FP mgmt. team?		1	
How many flood inspections in the last 12 months?		3	
How many variances granted last 12 months?		0	
Ordinance includes a freeboard requirement for new construction in the floodplain?	Y		
What is the freeboard requirement?			1 foot
Ordinance includes a “substantial damage” provision?	Y		
Is the ordinance effective for reducing flood risks?	Y		High
<b>City of Nixon</b>			
Flood-damage prevention ordinance?			
Describe inspection and permitting processes for floodplain management.			
Floodplain management team have an administrator?			
How many members on FP mgmt. team?			



Question	Y/N	Number	Describe/Explain
How many flood inspections in the last 12 months?			
How many variances granted last 12 months?			
Ordinance includes a freeboard requirement for new construction in the floodplain?			
What is the freeboard requirement?			
Ordinance includes a “substantial damage” provision?			
Is the ordinance effective for reducing flood risks?			
<b>City of Waelder</b>			
Flood-damage prevention ordinance?			
Describe inspection and permitting processes for floodplain management.			
Floodplain management team have an administrator?			
How many members on FP mgmt. team?			
How many flood inspections in the last 12 months?			
How many variances granted last 12 months?			
Ordinance includes a freeboard requirement for new construction in the floodplain?			
What is the freeboard requirement?			
Ordinance includes a “substantial damage” provision?			
Is the ordinance effective for reducing flood risks?			
<b>Calhoun County</b>			
Flood-damage prevention ordinance?	Y		Last amended January 2002
Describe inspection and permitting processes for floodplain management.			Generally follow National Flood Insurance Program guidelines
Floodplain management team have an administrator?	Y		
How many members on FP mgmt. team?		2	
How many flood inspections in the last 12 months?		50-75	
How many variances granted last 12 months?		0	



GUADALUPE-BLANCO RIVER AUTHORITY

Question	Y/N	Number	Describe/Explain
Ordinance includes a freeboard requirement for new construction in the floodplain?	N		Recommend 1 foot above BFE in V-zones at the time permit is issued
What is the freeboard requirement?	NA		
Ordinance includes a “substantial damage” provision?	N		
Is the ordinance effective for reducing flood risks?	Y		Moderate
<b>City of Point Comfort</b>			
Flood-damage prevention ordinance?			
Describe inspection and permitting processes for floodplain management.			
Floodplain management team have an administrator?			
How many members on FP mgmt. team?			
How many flood inspections in the last 12 months?			
How many variances granted last 12 months?			
Ordinance includes a freeboard requirement for new construction in the floodplain?			
What is the freeboard requirement?			
Ordinance includes a “substantial damage” provision?			
Is the ordinance effective for reducing flood risks?			
<b>City of Port Lavaca</b>			
Flood-damage prevention ordinance?			
Describe inspection and permitting processes for floodplain management.			
Floodplain management team have an administrator?			
How many members on FP mgmt. team?			
How many flood inspections in the last 12 months?			
How many variances granted last 12 months?			
Ordinance includes a freeboard requirement for new construction in the floodplain?			



Question	Y/N	Number	Describe/Explain
What is the freeboard requirement?			
Ordinance includes a “substantial damage” provision?			
Is the ordinance effective for reducing flood risks?			
<b>City of Seadrift</b>			
Flood-damage prevention ordinance?	N		
Describe inspection and permitting processes for floodplain management.	NA		
Floodplain management team have an administrator?	NA		
How many members on FP mgmt. team?	NA		
How many flood inspections in the last 12 months?		0	
How many variances granted last 12 months?		0	
Ordinance includes a freeboard requirement for new construction in the floodplain?	NA		
What is the freeboard requirement?	NA		
Ordinance includes a “substantial damage” provision?	NA		
Is the ordinance effective for reducing flood risks?	NA		
<b>Refugio County</b>			
Flood-damage prevention ordinance?	N		
Describe inspection and permitting processes for floodplain management.	NA		
Floodplain management team have an administrator?	NA		
How many members on FP mgmt. team?	NA		
How many flood inspections in the last 12 months?		0	
How many variances granted last 12 months?		0	
Ordinance includes a freeboard requirement for new construction in the floodplain?	NA		
What is the freeboard requirement?	NA		
Ordinance includes a “substantial damage” provision?	NA		



GUADALUPE-BLANCO RIVER AUTHORITY

Question	Y/N	Number	Describe/Explain
Is the ordinance effective for reducing flood risks?	NA		
<b>City of Austwell</b>			
Flood-damage prevention ordinance?			
Describe inspection and permitting processes for floodplain management.			
Floodplain management team have an administrator?			
How many members on FP mgmt. team?			
How many flood inspections in the last 12 months?			
How many variances granted last 12 months?			
Ordinance includes a freeboard requirement for new construction in the floodplain?			
What is the freeboard requirement?			
Ordinance includes a “substantial damage” provision?			
Is the ordinance effective for reducing flood risks?			
<b>City of Bayside</b>			
Flood-damage prevention ordinance?			
Describe inspection and permitting processes for floodplain management.			
Floodplain management team have an administrator?			
How many members on FP mgmt. team?			
How many flood inspections in the last 12 months?			
How many variances granted last 12 months?			
Ordinance includes a freeboard requirement for new construction in the floodplain?			
What is the freeboard requirement?			
Ordinance includes a “substantial damage” provision?			
Is the ordinance effective for reducing flood risks?			



Question	Y/N	Number	Describe/Explain
<b>Town of Refugio</b>			
Flood-damage prevention ordinance?			
Describe inspection and permitting processes for floodplain management.			
Floodplain management team have an administrator?			
How many members on FP mgmt. team?			
How many flood inspections in the last 12 months?			
How many variances granted last 12 months?			
Ordinance includes a freeboard requirement for new construction in the floodplain?			
What is the freeboard requirement?			
Ordinance includes a “substantial damage” provision?			
Is the ordinance effective for reducing flood risks?			
<b>City of Woodsboro</b>			
Flood-damage prevention ordinance?			
Describe inspection and permitting processes for floodplain management.			
Floodplain management team have an administrator?			
How many members on FP mgmt. team?			
How many flood inspections in the last 12 months?			
How many variances granted last 12 months?			
Ordinance includes a freeboard requirement for new construction in the floodplain?			
What is the freeboard requirement?			
Ordinance includes a “substantial damage” provision?			
Is the ordinance effective for reducing flood risks?			
<b>Victoria County</b>			
Flood-damage prevention ordinance?	Y		Enacted March 23, 1979
Describe inspection and permitting processes			Parcel of land or structure is



GUADALUPE-BLANCO RIVER AUTHORITY

Question	Y/N	Number	Describe/Explain
for floodplain management.			located on the NFIP FIRM. A determination is made whether the land or structure is in the floodplain. If not in the 100- or 500-year floodplain, a permit is not required. An exemption permit is granted at the request of the applicant. If in the 100-year floodplain, a permit and elevation certificate are required. If in the floodway, an impact statement, permit, and elevation certificate are required.
Floodplain management team have an administrator?	Y		
How many members on FP mgmt. team?		2 full-time	
How many flood inspections in the last 12 months?		20	
How many variances granted last 12 months?		0	
Ordinance includes a freeboard requirement for new construction in the floodplain?	N		
What is the freeboard requirement?	NA		
Ordinance includes a “substantial damage” provision?	N		
Is the ordinance effective for reducing flood risks?	Y		Structures are elevated, reducing impact from flooding (level of effectiveness not given)
<b>City of Victoria</b>			
Flood-damage prevention ordinance?	Y		Enacted March 23, 1979
Describe inspection and permitting processes for floodplain management.			Parcel of land or structure is located on the NFIP FIRM. A determination is made whether the land or structure is in the floodplain. If not located in the 100-year or 500-year floodplain, a permit is not required. An exemption permit is granted at





Question	Y/N	Number	Describe/Explain
			the request of the applicant. If in the 100-year floodplain, a permit and elevation certificate are required. If in the floodway, and impact statement, permit, and elevation certificate are required.
Floodplain management team have an administrator?	Y		
How many members on FP mgmt. team?		2	
How many flood inspections in the last 12 months?		20	
How many variances granted last 12 months?		0	
Ordinance includes a freeboard requirement for new construction in the floodplain?	N		
What is the freeboard requirement?	NA		
Ordinance includes a “substantial damage” provision?	N		
Is the ordinance effective for reducing flood risks?	Y		Structures are elevated, reducing impacting from flooding (level of effectiveness not given)

## FEMA Community Assistance Program Involvement

The Federal Emergency Management Agency’s Community Assistance Program (CAP) is a product-oriented financial assistance program directly related to the flood loss reduction objectives of the National Flood Insurance Program (NFIP). States and communities that are participating in the NFIP are eligible for this assistance. The CAP is intended to identify, prevent, and resolve floodplain management issues in participating communities before they develop into problems requiring enforcement action. The program involves Community Assistance Contacts (CACs) and Community Assistance Visits (CAVs). During CACs and CAVs, officials discuss current local ordinances, the number of floodplain insurance policies in the community, floodplain administration, permitting, and annexation issues. Table 18-11 shows the dates of CACs and CAVs and the date the files were closed according to FEMA records.



**Table 18-11. Community Assistance Visits from FEMA  
1/1/90 through 1/1/03**

Jurisdiction	Dates		
	CAC	CAV	Closed
<b>Lower Basin</b>			
Victoria County	09/11/96	11/01/00 --	02/14/01 11/06/96
City of Victoria		09/15/94 03/16/01	03/21/01
Calhoun County	04/29/94 08/23/96	-- 11/02/00	02/13/96 02/23/01 11/06/96
City of Port Lavaca	08/19/96	-- 11/06/00	11/05/96 --
City of Port Comfort		11/06/00	02/02/01
City of Seadrift	09/24/96	-- 11/02/00	12/23/96 --
Refugio County	03/07/96	05/23/01 5/13/92 --	06/22/01 05/13/92 11/26/96
City of Woodsboro	09/13/94	5/23/01 --	05/30/01 09/27/94
City of Refugio	03/07/96	05/23/01 --	06/30/01 11/19/96
City of Bayside	09/13/94	05/23/01 --	05/30/01 09/27/94
City of Austwell	09/14/94	05/23/01 --	06/22/01 09/27/94
<b>Middle Basin</b>			
Gonzales County	04/20/94 09/23/96		02/13/96 12/30/96
City of Gonzales	04/29/94		09/14/94
DeWitt County	04/28/94		09/14/94
City of Yoakum	04/29/94		02/13/96
City of Cuero	04/28/94		02/13/96
City of Yorktown		04/28/94	





Jurisdiction	Dates		
	CAC	CAV	Closed
<b>Upper Basin</b>			
Kendall County	01/31/96		11/04/96
City of Boerne	01/31/96		11/05/96
Caldwell County	09/23/96		11/05/96
City of Lockhart		07/19/94	10/26/94
City of Luling	10/28/91	--	10/28/91
		10/28/91	10/28/91
		04/03/02	04/08/02
	10/30/95	--	11/12/96
City of Martindale	04/25/94	--	02/13/96
		04/03/02	--

