Appendix A
List of Tables/Figures

Appendix A List of Tables/Figures

Figure 1	Regional Map
Figure 2	Vicinity Map
Figure 3	Conceptual Design
Figure 4	Floodplain Map



Appendix B
E.O. 11988 Floodplain Management
Eight-Step Planning Process

Executive Order 11988 Floodplain Management Eight-Step Planning Process Summary West Dietz Creek Drainage Improvement Project

Step 1: Determine whether the Proposed Action is located in a wetland and/or the 100-year floodplain, or whether it has the potential to affect or be affected by a floodplain or wetland.	Project Analysis: According to the FHBM for the City of Schertz, the project area is within the regulated floodplain. The proposed 100-year Design project would have a beneficial effect on the 100-year floodplain. There are no wetlands in the project area			
Step 2: Notify public at earliest possible time of the intent to carry out an action in a floodplain or wetland, and involve the affected and interested public in the decision-making	Project Analysis: An initial public notice was posted in the community's newspaper in October 1998 indicating that actions would potentially occur in the 100-year floodplain and/or wetlands. The City would be required to notify the public again prior to construction.			
Step 3: Identify and evaluate practicable alternatives to locating the Proposed Action in	Project Analysis: The following alternatives were evaluated:			
a floodplain or wetland.	Alternative 1: No Action.			
	Alternative 2: Proposed Action. Channel Improvements on West Dietz Creek- 100-year Design. The Proposed Action involves 1.5 miles of drainage improvements; excavating West Dietz Creek to a maximum channel depth of 8 feet and a maximum channel bottom width of 300 feet.			
	Alternative 3: Channel Improvements on West Dietz Creek- 50-year Design. This Alternative involves 1.5 miles of drainage improvements; excavating West Dietz Creek to a maximum channel depth of 6.5 feet and a maximum channel bottom width of 240 feet.			
Step 4: Identify the full range of potential	Project Analysis:			
direct or indirect impacts associated with the occupancy or modification of floodplains and wetlands and the potential direct and indirect support of floodplain and wetland development that could result from the Proposed Action.	The No Action Alternative would not affect the 100-year floodplain. No drainage improvements would be undertaken; therefore, there would no direct or indirect impacts to jurisdictional waters in the project area or the floodplain.			
	Alternative 2, the Proposed Action, is likely to result in minor and temporary impacts associated with the occupancy or modification of the floodplain. Removal of vegetation is not expected to affect the floodplain. In accordance with CFR 44 Sec. 9.5, debris removed as part of the improvement project would not be			



disposed of within a floodplain. Based on the February 22, 2002, letter from the USACE, Fort Worth District, this Alternative is exempt from Section 404 of the Clean Water Act. Therefore, a Department of the Army permit would not be required. Mitigation measures described in Section 3.1.1 Geology, Seismicity and Soils, would minimize the potential adverse indirect impacts to Cibolo Creek. The improvement of West Dietz Creek would allow floodwaters in the upper watershed to pass without restriction to Cibolo Creek. A beneficial effect to the City would be the reduction of the 100-year floodplain and the related removal of approximately 100 structures from the 100-year floodplain.

Under Alternative 3, no long-term impacts are anticipated with this alternative. Mitigation measures described in Section 3.1.1 Geology, Seismicity and Soils, would minimize the potential adverse indirect impacts to the floodplain and Cibolo Creek.

Step 5: Minimize the potential adverse impacts to work within floodplains and wetlands to be identified under Step 4, restore and preserve the natural and beneficial values served by wetlands.

Project Analysis: The following mitigation measures would minimize potential adverse impacts within the floodplain. The City would cover stockpiled soils to help prevent fugitive dust and soil erosion. The City would use temporary erosion and sediment controls, including installation silt fences and/or hay bales, hydro-seeding, and the staging of construction equipment in existing developed or previously disturbed areas, such as paved parking lots. Bare soils would be re-vegetated with native grasses after construction to prevent future soil erosion. In addition, the City plans to use concrete velocity dissipaters at intervals along the channel to reduce water velocities, thereby reducing the potential for sedimentation and soil erosion in the creek channel during floods.

Step 6: Re-evaluate the Proposed Action to determine 1) if it is still practicable in light of its exposure to flood hazards; 2) the extent to which it will aggravate the hazards to others; and 3) its potential to disrupt floodplain and wetland values.

Project Analysis: The Proposed Action remains practicable based on the flood prevention objective.

Step 7: If the agency decides to take an action in a floodplain or wetland, prepare and provide the public with a finding and explanation of any final decision that the floodplain or wetland is the only practicable alternative. The explanation should include any relevant factors considered in the decision-making process.

Project Analysis: A public notice will be made based on the decision to proceed with the Proposed Action. At a minimum, this notice shall state a reason for locating the Proposed Action in the floodplain; a description of all significant facts considered in making determination: a list of the alternatives considered; a statement indicating whether the action conforms to state and local floodplain protection standards; and a statement indicating how the action effects the wetlands and how mitigation is achieved.

Step 8: Review the implementation and postimplementation phases of the Proposed Action to ensure that the requirements of the EOs are fully implemented. Oversight responsibility shall be integrated into existing processes.

Project Analysis: This step is integrated into the NEPA process and FEMA project management and oversight functions.



Appendix C Agency Correspondence



John Burt, State Conservationist United States Department of Agriculture 101 South Main St. Temple, TX 76501

RE

Request for Project Review, City of Schertz, Texas Channel Improvements on West Deitz Creek and the Associated Replacement of Culverts at Elbel Road.

Dear Mr. Burt:

The City of Schertz, Texas has applied for funding from the Federal Emergency Management Agency (FEMA) to improve West Deitz Creek (intermittent creek) and replace the culvert at Elbel Road. Consequently, URS Group, Inc. (URS) has been retained by FEMA to prepare an Environmental Assessment for the improvement of West Deitz Creek and the associated replacement of culverts at Elbel Road within the City of Schertz, Texas. The purpose of the improvements is to provide greater flood protection for the City of Schertz. The City of Schertz initiated correspondence with the United States Department of Agriculture in March of 1999. However, the City was unable to provide URS with an official response on this project.

On behalf of FEMA, and in compliance with the National Environmental Policy Act of 1969, as amended, URS requests that your agency review the proposed action and provide comments and any available information on resources under your agency's jurisdiction within the project area.

The improvements start at East Deitz Creek and follow the West Deitz Creek channel west through the city and end at Maske Road. The proposed project area extends approximately 1.5 miles and varies in characterization. The channel has been improved at Elbel Road, but consists of only a small ditch near Maske Road. West Deitz Creek would be excavated to a 224-foot-wide flat bottom with 3 to 1 side slopes. Velocity dissipators would be installed at intervals to facilitate water drainage from surrounding areas. The current bridge at Elbel Road would be replaced with a larger bridge with 16 10-foot by 8-foot box culverts. These improvements have been designed to accommodate a 100-year storm event. A map showing the locations of the proposed project is attached.

Please direct any comments and information directly to me at the letterhead address. If you have any questions please feel free to contact me at (301) 670-3387.

Sincerely,

URS Green, Inc.

Ryan Thompson Environmental Plenner

Enclosures as noted

cc: Dennis Lee, FEMA Region VI

URS Corporation 200 Orchard Ridge Drive, Suite 101 Gethersburg, 460 20678-1978 Tel: 301,258,9780 Sec: 201,869,2043



March 22, 2002

James Greenway
United States Department of Agriculture
Natural Resource Conservation Service
101 South Main St.
Temple, TX 76501

RE:

Request for Project Review, City of Schertz, Texas Channel Improvements on West Dietz Creek and the Associated Replacement of Culverts at Elbel Road.

Dear Mr. Greenway:

The City of Schertz, Texas has applied for funding from the Federal Emergency Management Agency (FEMA) to improve West Dietz Creek (intermittent creek) and replace the culvert at Elbel Road. Consequently, URS Group, Inc. (URS) has been retained by FEMA to prepare an Environmental Assessment for the improvement of West Dietz Creek and the associated replacement of culverts at Elbel Road within the City of Schertz, Texas. The purpose of the improvements is to provide greater flood protection for the City of Schertz. The City of Schertz initiated correspondence with the United States Department of Agriculture (USDA) in March of 1999. However, the City was unable to provide URS with an official response on this project. URS, reinitiated correspondence with USDA on August 17, 2001 and has not received a response in regards to prime or unique farmlands and the Farmland Protection Policy Act (FPPA).

A phone call was made to Mr. Sam Brown the week of February 25, 2002. During that conversation URS was informed of FEMA's responsibilities under the FPPA. URS was asked to send to USDA a completed Form AD-1006, Farmland Conversation Impact Rating (attached); USGS Topographic Map (attached); and a project description (below).

The proposed improvements start at East Dietz Creek and follow the West Dietz Creek channel west through the city and end at Maske Road. The proposed project and the alternative project extends approximately 1.5 miles and varies in characterization. The channel has been improved at Elbel Road, but consists of only a small ditch near Maske Road. West Dietz Creek would be excavated to a 224-foot-wide flat bottom with 3 to 1 side slopes. Velocity dissipaters would be installed at intervals to facilitate water drainage from surrounding areas. The current bridge at Elbel Road would be replaced with a larger bridge with 16 10-foot by 8-foot box culverts. These improvements have been designed to accommodate a 100-year storm event. As proposed, the project would disturb prime farmland and an area used for periodic hay production.

On behalf of FEMA, and in compliance with the National Environmental Policy Act of 1969, as amended, URS requests that your agency review the proposed action and the

URS Corporation 200 Orchard Ridge Drive. Suite 101 Gaithersburg, MD 20578-1978 Tel: 301,256,9780 Fex: 301,869,8728 **URS**

completed AD 1006 form. It is URS's understanding that a rating of less then 60 for the project means that we are exempt from the FPPA. If your agency is in concurrence with this determination and has no further comments, verbal confirmation of these findings would be appreciated.

Please direct any comments and information directly to me at the letterhead address. If you have any questions please feel free to contact me at (301) 670-3387.

Sincerely,

URS Group, Inc.

Kyan Thompson

Environmental Planner

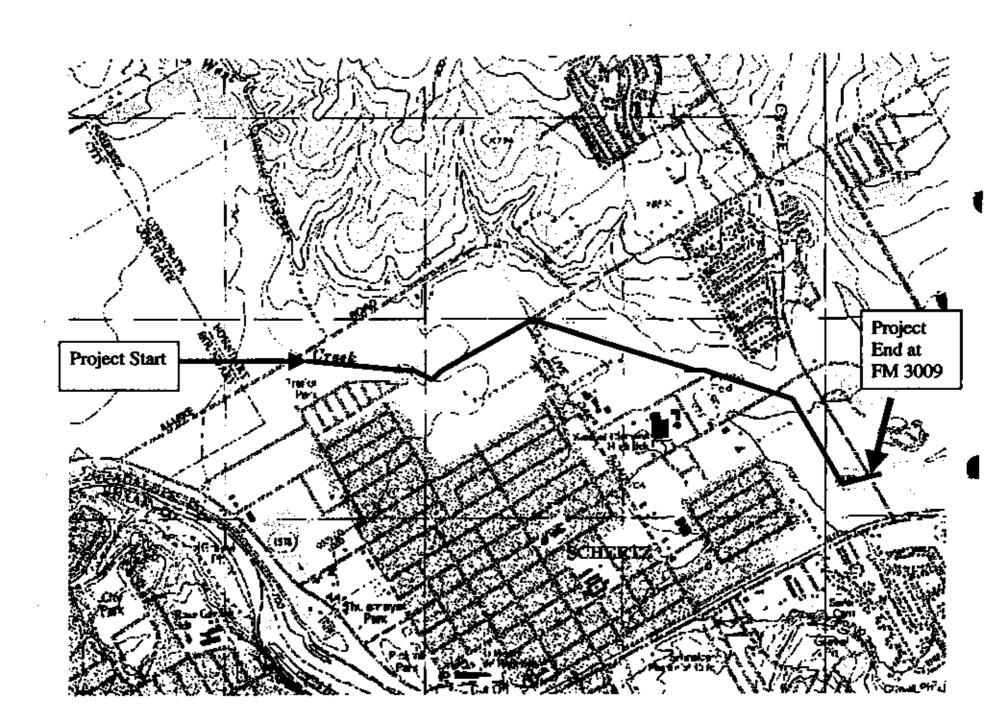
Enclosures as noted

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

		Date Office Control of the Control o					
PART I (To be completed by Federal Agency)		Date Of Land Evaluation Proquest 3/5/02					
Name Of Project West Delitz Creek Drainage		Federal A	Federal Agency Involved FEMA				
Proposed Land Use Drainage-City		County And State Guadatupe County, Texas					
PART LIFTH WHICHES IN 18158)		4	and Principle S	Negative Name			
Cross the alle states prices, unknow, states of the control of the	de o prolimentantes Popularios de la compositación	of this food	Yes.	Mo Acres lings	Alayana P	Serie Silde	
Major Cray(9) Grain sarghum	Farmable Land In Co. Acres: 288,694	Figure Land in Cont. Jurisdiation			Amenit Of Partitions As Defined in FPRA Acres: 251,184 %55		
House Of Land Evidenties System Good LEGA	Name of Loan Sile	Name Of Logic Chr Alexandriant Bystom			Date Land Evaluation Maluman By MRCS 3/28/00		
PART III (To be completed by Federal Agency)				vs Bite Ratino	·	
A. Total Acres To Be Converted Directly	<u> </u>		53.0	<u>\$## 8</u>	Site C		
B. Total Agree To Be Converted Indirectly			123.0	+	 -		
C. Total Agree in Site			53.0	0.0	0.0	0.0	
	, i			10.0	- 0.0	0.0	
PASKT M. (To be completed by MRCS) 1-and 8		·	<u> </u>	1	<u>i</u> .	·] ·	
A THE WAS PROJECT WHEN THE PARTY			53.0	1			
H. Tree Asses Steel Company And Local Section	The state of the s		10.0				
C. Fernance Off amount in County Off			1.0012			1	
D. Paistage O'Remark J. Tool, M. S. C.	THE RESERVE OF THE PARTY OF THE		400	والمراجع والمعالي والمراجع			
FAX 1 VALUE OF THE STATE OF THE			80			•	
PART VI (To be completed by Federal Agency Site Assessment Criteria (These criteria are explained	() i in 7 CFR 058.5(b)	Maximum Pointa					
1. Area in Nonurben Use			6				
2. Perimeter in Nonurbers Use			6	-	 		
3. Parcent Of Site Being Farmed			0	 			
4. Protection Provided By State And Local	Government		ě	<u> </u>			
5. Distance From Urban Bullup Area			9		 	 	
6. Distance To Urban Support Services			6	1	1	-	
7. Size Of Present Farm Unit Compared T	o Average		4		 -		
8. Creation Of Nonfermable Fermiend			5		-	- 	
9. Availability Of Farm Support Services			5	1	1		
19. On-Farm Investments			ō	1		 	
11. Effects Of Conversion On Ferm Support Services			10				
12. Compatibility With Existing Agricultural Use			4	1	 		
TOTAL SITE ASSESSMENT POINTS		160	45	0	0	0	
PART VH (To be completed by Federal Agency)							
Relative Value Of Farmland (From Part V)		100	90	0	0	0	
Total Site Assessment (From Part VI above or a local site assessment)		160	45	0	0	0	
TOTAL POINTS (Total of above 2 lines)	<u>.</u>	260	136	0	0	0	
Site Selected: Yes	Date Of Selection				Site Assessment 'es 🖸	Used? No □	
<u> </u>							

Resear For Belection:





Natural Resources Conservation Service 101 South Main Temple, Texas 76501-7602

Subject: LNU-Farmland Protection-Schertz- Dierz Creek Guadalupe County, Texas

March 22, 2002

URS Corporation 200 Orchard Ridge Drive Gaithersberg MD 20878

Attention: Ryan Thomson-Project Scientist

I have reviewed the information concerning the proposed drainage improvements to Dietz Creek in Guadalupe County, Texas. This is part of an Environmental Evaluation for the above-referenced project as required by FEMA. I have evaluated the soils for this project

The proposed project does contain Prime Farmland soils as mapped in the Soil Survey of Guadalupe County, Texas. These soils had a score of 90 and the Total Points on Part VII of the AD-1006 is 135. This site will require no additional consideration since the rating score is less then 160.

The FPPA states, "Sites receiving a total score of less than 160 need not be given further consideration for protection and no additional sites need to be evaluated", 7CFR Part 658.4 (c) 2. Information about the Farmland Protection Policy Act can be accessed at the following web site address:

www.access.gpo.gov/naral/cfr/waisidx/7cfr658_99.html

I have attached an AD-1006 (Farmland Conversion Impact rating) form for this project indicating the exemption status of this proposed project.

Thanks for the resource materials you submitted to evaluate this project. If you have any questions please call James Greenwade at (254)-742-9860 or Sam Brown at (254)-742-9854. Fax (254)-742-9859.

Thanks.

James M. Greenwade

Soil Scientist

Soil Survey Section

USDA-NRCS, Temple, Texas



Attn: Colonel Gordan M. Wells
United States Army Corps of Engineers
P.O. Box 17300
Fort Worth, TX 76102-0300

RE:

Request for Project Review, City of Schertz, Texas

Charmel Improvements on West Deitz Creek and the Associated

Replacement of Culverts at Elbel Road.

Dear Colonel Wells:

The City of Schertz, Texas has applied for funding from the Federal Emergency Management Agency (FEMA) to improve West Deitz Creek (intermittent creek) and replace the culvert at Elbel Road. Consequently, URS Group, Inc. (URS) has been retained by FEMA to prepare an Environmental Assessment for the improvement of West Deitz Creek and the associated replacement of culverts at Elbel Road within the City of Schertz, Texas. The purpose of the improvements is to provide greater flood protection for the City of Schertz. The City of Schertz initiated correspondence with the United States Army Corps of Engineers in March of 1999. However, the City was unable to provide URS with an official response on this project.

On behalf of FEMA, and in compliance with the National Environmental Policy Act of 1969, as amended, URS requests that your agency review the proposed action and provide comments and any available information on resources under your agency's jurisdiction within the project area.

The improvements start at East Deitz Creek and follow the West Deitz Creek channel west through the city and end at Maske Road. The proposed project area extends approximately 1.5 miles and varies in characterization. The channel has been improved at Elbel Road, but consists of only a small ditch near Maske Road. West Deitz Creek would be excavated to a 224-foot-wide flat bottom with 3 to 1 side slopes. Velocity dissipaters would be installed at intervals to facilitate water drainage from surrounding areas. The current bridge at Elbel Road would be replaced with a larger bridge with 16 10-foot by 8-foot box culverts. These improvements have been designed to accommodate a 100-year storm event. A map showing the locations of the proposed project is attached.

Please direct any comments and information directly to me at the letterhead address. If you have any questions please feel free to contact me at (301) 670-3387.

Sincerely,

URS Group, Inc.

Ryan Thompson Environmental Planner

Enclosures as noted

ec: Dennis Lee, FEMA Region VI

URS Corporation 200 Oroherd Hidge Drive, Suite 101 Getthersburg, MD 20678-1978 Tel: 301-258-9780 Fex: 301-869-2043



DEPARTMENT OF THE ARMY

FORT WORTH DISTRICT, CORPS OF ENGINEERS P. O. BOX 17300 FORT WORTH, TEXAS 76102-0300

REPLY TO ATTENTION OF

February 22, 2002

Planning, Environmental, and Regulatory Division Regulatory Branch

SUBJECT: Project Number 200100591

Mr. Ryan Thompson URS Group, Inc. 200 Orchard Ridge, Suite 101 Gaithersburg, Maryland 20878-1978

Dear Mr. Thompson:

Thank you for your letter of August 17, 2001, concerning the proposed channel improvements on West Deitz Creek in the city of Schertz, Guadalupe County, Texas. This project has been assigned Project Number 200100591. Please include this number in all future correspondence concerning this project. Failure to reference the project number may result in a delay.

We have reviewed this project in accordance with Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899. Under Section 404, the U.S. Army Corps of Engineers (USACE) regulates the discharge of dredged and fill material into waters of the United States, including wetlands. The USACE responsibility under Section 10 is to regulate any work in, or affecting, navigable waters of the United States. Based on your description of the proposed work, other information available to us, and current regulations and policy, we have determined that this project will not involve any of the above activities. Therefore, it will not require Department of the Army authorization under the above laws. However, it is incumbent upon you to remain informed of any changes in USACE Regulatory Program regulations and policy as they relate to your project.

Thank you for your interest in our nation's water resources. If you have any questions concerning our regulatory program, please contact Mr. David Madden at the address above or telephone (817)886-1741.

Sincerely,

Wavne A

Chief, Regulatory Branch



Mr. Bill Worsham General Land Office 1700 N. Congress Ave. Austin, Texas 78701-1495

RE:

Request for Project Review, City of Schertz, Texas

Channel Improvements on West Deitz Creek and the Associated

Replacement of Culverts at Elbel Road.

Dear Mr. Worsham:

The City of Schertz, Texas has applied for funding from the Federal Emergency Management Agency (FEMA) to improve West Deitz Creek (intermittent creek) and replace the culvert at Elbel Road. Consequently, URS Group, Inc. (URS) has been retained by FEMA to prepare an Environmental Assessment for the improvement of West Deitz Creek and the associated replacement of culverts at Elbel Road within the City of Schertz, Texas. The purpose of the improvements is to provide greater flood protection for the City of Schertz. The City of Schertz initiated correspondence with the General Land Office in March of 1999. However, the City was unable to provide URS with an official response on this project.

On behalf of FEMA, and in compliance with the National Environmental Policy Act of 1969, as amended, URS requests that your agency review the proposed action and provide comments and any available information on resources under your agency's jurisdiction within the project area.

The improvements start at East Deitz Creek and follow the West Deitz Creek channel west through the city and end at Maske Road. The proposed project area extends approximately 1.5 miles and varies in characterization. The channel has been improved at Elbel Road, but consists of only a small ditch near Maske Road. West Deitz Creek would be excavated to a 224-foot-wide flat bottom with 3 to 1 side slopes. Velocity dissipaters would be installed at intervals to facilitate water drainage from surrounding areas. The current bridge at Elbel Road would be replaced with a larger bridge with 16 10-foot by 8-foot box culverts. These improvements have been designed to accommodate a 100-year storm event. A map showing the locations of the proposed project is attached.

Please direct any comments and information directly to me at the letterhead address. If you have any questions please feel free to contact me at (301) 670-3387.

Sincerely,

URS Group, Inc.

Ryan Thompson

Environmental Planner

Enclosures as noted

cc: Dennis Lee, FEMA Region VI

URS Corporation 200 Orchard Ridge Drive, Suite 101 Gathersburg, MD 20878-1978 Tel: 301.266.9780 Fac: 301.869.2043



Mr. James Mirabal Texas Natural Resources Conservation Commission P.O. Box 13087 Austin, Texas 78711-3087

RE:

Request for Project Review, City of Schertz, Texas

Channel Improvements on West Deitz Creek and the Associated

Replacement of Culverts at Elbel Road.

Dear Mr. Mirabal:

The City of Schertz, Texas has applied for finding from the Federal Emergency Management Agency (FEMA) to improve West Deitz Creek (intermittent creek) and replace the culvert at Elbel Road. Consequently, URS Group, Inc. (URS) has been retained by FEMA to prepare an Environmental Assessment for the improvement of West Deitz Creek and the associated replacement of culverts at Elbel Road within the City of Schertz, Texas. The purpose of the improvements is to provide greater flood protection for the City of Schertz. The City of Schertz initiated correspondence with the Texas Natural Resources Conservation Commission in March of 1999. However, the City was unable to provide URS with an official response on this project.

On behalf of FEMA, and in compliance with the National Environmental Policy Act of 1969, as amended, URS requests that your agency review the proposed action and provide comments and any available information on resources under your agency's jurisdiction within the project area.

The improvements start at Bast Deitz Creek and follow the West Deitz Creek channel west through the city and end at Maske Road. The proposed project area extends approximately 1.5 miles and varies in characterization. The channel has been improved at Elbel Road, but consists of only a small ditch near Maske Road. West Deitz Creek would be excavated to a 224-foot-wide flat bottom with 3 to 1 side slopes. Velocity dissipaters would be installed at intervals to facilitate water drainage from surrounding areas. The current bridge at Elbel Road would be replaced with a larger bridge with 16 10-foot by 8-foot box culverts. These improvements have been designed to accommodate a 100-year storm event. A map showing the locations of the proposed project is attached.

Please direct any comments and information directly to me at the letterhead address. If you have any questions please feel free to contact me at (301) 670-3387.

Sincerely,

URS Group, Inc.

Ryan Thompson

Environmental Planner

Enclosures as noted

cc: Dennis Lee, FEMA Region VI

URS Corporation 200 Orchard Ridge Orive, Suite 101 Gaithersburg, MD 20878-1978 Tel: 301.258.9780 Fax: 301.869.2043 Robert J. Huston, Chairman R. B. "Ralph" Marquez, Commissioner John M. Baker, Commissioner Jeffrey A. Saitas, Executive Director



Texas Natural Resource Conservation Commission

Protecting Texas by Reducing and Preventing Pollution August 28, 2001

Mr. Ryan Thompson Environmental Planner URS Corporation 200 Orchard Ridge Drive - Suite 101 Gaithersburg, MD 20878-1978

Re: City of Schertz

> Channel Improvements on West Deitz Creek and the Associated Replacement of Culverts at Elber Road

Dear Mr. Thompson:

This is in response to your August 17, 2001, letter concerning the referenced project. It has been determined from a review of the information you provided that an Application for Approval of Reclamation Project need not be filed for the referenced project.

Our findings indicate that the City of Schertz is a participant in the National Flood Insurance Program (NFIP). The City by virtue of its participation in the NFIP, and in accordance with Section 16.236 (d) (4) of the Texas Water Code, has approval authority for projects in the floodplains of the City. If you have not already done so, you should insure that all proposed construction within the City's floodplains will be in compliance with the City's Flood Damage Prevention Ordinance, this includes acquiring engineering data that demonstrates the impact the project will have on the 100-year flood flows, elevations, velocities, etc. The City will use this data to file for revisions to its flood map.

Thank you for bringing this matter to our attention.

ne Mirakal

Sincerely,

ames Mirabal, P.E.

State Reclamation Engineer



Ms. Melissa Parker Texas Parks and Wildlife Department 4200 Smith School Road Austin, Texas 78744

RE:

Request for Project Review, City of Schertz, Texas

Channel Improvements on West Deitz Creek and the Associated

Replacement of Culverts at Elbel Road.

Dear Ms. Parker:

The City of Schertz, Texas has applied for funding from the Federal Emergency Management Agency (FEMA) to improve West Deitz Creek (intermittent creek) and replace the culvert at Elbel Road. Consequently, URS Group, Inc. (URS) has been retained by FEMA to prepare an Environmental Assessment for the improvement of West Deitz Creek and the associated replacement of culverts at Elbel Road within the City of Schertz, Texas. The purpose of the improvements is to provide greater flood protection for the City of Schertz. The City of Schertz initiated correspondence with the Texas Parks and Wildlife Department in March of 1999. However, the City was unable to provide URS with an official response on this project.

On behalf of FEMA, and in compliance with the National Environmental Policy Act of 1969, as amended, URS requests that your agency review the proposed action and provide comments and any available information on resources under your agency's jurisdiction within the project area.

The improvements start at East Deitz Creek and follow the West Deitz Creek channel west through the city and end at Maske Road. The proposed project area extends approximately 1.5 miles and varies in characterization. The channel has been improved at Elbel Road, but consists of only a small ditch near Maske Road. West Deitz Creek would be excavated to a 224-foot-wide flat bottom with 3 to 1 side slopes. Velocity dissipaters would be installed at intervals to facilitate water drainage from surrounding areas. The current bridge at Elbel Road would be replaced with a larger bridge with 16 10-foot by 8-foot box culverts. These improvements have been designed to accommodate a 100-year storm event. A map showing the locations of the proposed project is attached.

Please direct any comments and information directly to me at the letterhead address. If you have any questions please feel free to contact me at (301) 670-3387.

Sincerely,

URS Group, Inc.

Ryan Thompson Environmental Planner

Enclosures as noted

cc: Dennis Lee, FEMA Region VI

URS Corporation 200 Orchard Ridge Drive, Suite 101 Galthemburg, MD 20878-1978 Tel: 301.258.9780 Fer: 301.869.2043



October 30, 2001

COMMITTEE

CHARRIST AMORTROWS ESSAL

индет Аменій, Ля. Укарскияман, Мариан

SCHOOL THESE

CAROL E. SHOOM HOUSTON

James G.C. Prizament

ALVON L. HENRY

PHILIP O'B. MONTGOMERT, W CALLAG

DOMATO D. SAMON

MARK E. WATEON, JR.

LEE M. BARE CHARMAN ENGINTUR FORT WORTH

ANDREW SAMPON EXECUTIVE DIRECTOR

Give Thanks for the Memories...



Lone Star Legacy.

Give to the Long Star Legacy Endowment Fund Mr. Ryan Thompson URS Corporation 200 Orchard Ridge Driver, Ste. 101 Galthersburg, MD 20878-1978

Re:

Hazard Mitigation Grant Program Proposal for Channel Improvements on West Deitz Creek and the Associated Replacement of Culverts at Elbel Road—City of Shertz, Texas

Dear Mr. Thompson:

Thank you for the opportunity to comment on the proposal. Because the areas have already been cleared, impacts to fish and wildlife habitats will be minimal. You should be aware of issues relating to the effectiveness of using concrete for permanent stabilization/drainage structures:

Recent studies from the Texas Transportation institute have found that biotechnical approaches such as vegetated banks may be better for long-term stabilization than armored surfaces such as concrete and stone rip-rap. Enclosed is a summary of these findings for your reference. In addition, properly designed vegetated drainage canals are less costly than concrete and do not involve routine dredging maintenance, while allowing for enhanced erosion control and increased stormwater infiltration rates. The presence of a more natural, sesthetically pleasing setting, in addition to providing some limited wildlife habitat, allows for increased property values along grass-lined as opposed to concrete canals. Canal design should follow fluvial geomorphological principles, including appropriate sinuosity and terracing, to provide efficient flow and sediment transport, and to minimize maintenance.

Any improvements to the existing canals should implement the following recommendations:

- Soil erosion and sedimentation should be minimized by utilizing haybales, sitt screens, or other similar soil erosion prevention techniques.
- The construction site should be revegetated with native grasses and forbs to stabilize exposed soils after construction is complete.
- 3) If concrete is authorized as the method of improvement, energy dissipaters should be placed at the downstream end of the canals to minimize damage to the receiving channel.
- Native trees and shrub should be left intact or mitigated for.

Sent: Monday, June 25, 2001 11:52 PM

To: watertalk@twri.tamu.edu

Subject: News from Texas Transportation Institute/Erosion Control

Research

Streambank erosion near bridges and roads threatens the stability and dependability of highway structures. As urban development increases, so does water runoff into streams. As a result, streambank erosion speeds up. This erosion can be costly and dangerous, so preventing erosion by stabilizing streams is a vital step in maintaining the country's highway infrastructure.

Texas Transportation institute (TTI) recentchers are investigating the use of vegetation, particularly trees, as en effective and attractive way to tackle such erosics. Their study is supported by the Texas Department of Transportation.

We are rethinking stabilization techniques in terms of using nature to treat itself," said Ming-Han Li, TTI assistant transportation researcher and leader for the project. To the United States, we have relied on hard armored surfaces such as concrete and stone ripraps (embankment protection formed by chunks of concrete or stone) because we thought they would be more durable than planted. streambanks. Now we're finding that biotechnical approaches may work better for long-term stabilization as well as provide environmentally triendly solutions."

Harvesting dormant tree cuttings and plenting from for erosion control is a technique that started in Europe and was introduced to Canada and the northern United States, Li said. "Texas winters, however, normally are warmer and minier than the rest of the country," he said. "That leaves a very short period for plants to be dormant, which is when roots become established in new plantings. If cuttings are harvested while they are growing or breaking dormancy, there will not be a root system available to support the increased water demand."

Researchers with the TTI project aim to adapt the method to warmer climates. "We are running a series of experiment at Texas ALM's Riverside campus with water-loving trees such as willow and cottonwood," Li said. "We are working to extend the planting period in warm regions by enforcing the dormancy, and by other treatments." In addition to the Riverside experiments, a test sie in under construction in the Dallas area. The site will demonstrate streambank stabilization techniques in operation and will be monitored after construction. Technical data will be collected as the first step in developing selection criteria for different biotechnical mulhods.

These techniques combine the use of vegetation with grading operations and manmade materials such as geotextiles to help prevent soil from being washed away in the first year.

"The root systems incorporate the geosynthetics and grow over them," Li said. "In two or three years, a tree is mature enough to stabilize

the streambank."

Ed. Note: This article is adapted from a story by Rhonda Brinkmann in TTI's Texas Transportation Researcher, on the Web at tti.tamu.edu/researcher.



Lynn Starnes, Geographical Regional Director U.S. Fish and Wildlife Service Regional Office P.O. Box 1306 Albuquerque, NM 87103

RE:

Request for Project Review, City of Schertz, Texas Channel Improvements on West Deitz Creek and the Associated Replacement of Culverts at Elbel Road.

Dear Ms. Starnes:

The City of Schertz, Texas has applied for funding from the Federal Emergency Management Agency (FEMA) to improve West Deitz Creek (intermittent creek) and replace the culvert at Elbel Road. Consequently, URS Group, Inc. (URS) has been retained by FEMA to prepare an Environmental Assessment for the improvement of West Deitz Creek and the associated replacement of culverts at Elbel Road within the City of Schertz, Texas. The purpose of the improvements is to provide greater flood protection for the City of Schertz. The City of Schertz initiated correspondence with the U.S. Fish and Wildlife Service in March of 1999. However, the City was unable to provide URS with an official response on this project.

On behalf of FEMA, and in compliance with the National Environmental Policy Act of 1969, as amended, URS requests that your agency review the proposed action and provide comments and any available information on resources under your agency's jurisdiction within the project area.

The improvements start at East Deitz Creek and follow the West Deitz Creek channel west through the city and end at Maske Road. The proposed project area extends approximately 1.5 miles and varies in characterization. The channel has been improved at Elbel Road, but consists of only a small ditch near Maske Road. West Deitz Creek would be excavated to a 224-foot-wide flat bottom with 3 to 1 side slopes. Velocity dissipaters would be installed at intervals to facilitate water drainage from surrounding areas. The current bridge at Elbel Road would be replaced with a larger bridge with 16 10-foot by 8-foot box culverts. These improvements have been designed to accommodate a 100-year storm event. A map showing the locations of the proposed project is attached.

Please direct any comments and information directly to me at the letterhead address. If you have any questions please feel free to contact me at (301) 670-3387.

Sincerely,

URS Group, Inc.

Ryan Thompson
Environmental Planner

Enclosures as noted

cc: Dennis Lee, FEMA Region VI

URS Corporation 200 Orchard Ridge Drive, Suite 101 Gelthersburg, MD 20879-1978 Tel: 301,258,9780 Fee: 301,869,2045



United States Department of the Interior

FISH AND WILDLIFE SERVICE

10711 Burnet Road, Suite 200 Austin, Terms 78758 (512) 490-0057

October 2, 2001

Ryan Thompson URS Corporation 200 Orchard Ridge Drive, Suite 101 Gaithersburg, MD 20878-1978

Cons.# 2-15-01-I-0879

Dear Mr. Thompson:

Thank you for your August 17, 2001 inquiry regarding information on resources under the jurisdiction of the U.S. Fish and Wildlife Service in the area of your proposed project. We understand the city of Schertz, Texas has applied for funding from the Federal Emergency Management Agency to improve West Deitz Creek and replace a culvert at Elbel Road. The creek improvements would start at East Deitz Creek and follow the West Deitz Creek channel west through the city and end at Maske Road.

Threatened and Endangered Species

The proposed project site is not located within designated critical habitat of any federally listed threatened or endangered species. In addition, our information does not indicate the presence of any federally listed species occurring in Guadalupe County, however, the mountain plover (Charadrius montanus), a species proposed for listing, has been documented to occur in Guadalupe County. Mountain plovers are found in dry upland prairies and plains and semi-desert habitats. In winter, they are usually found on bare dirt fields and shortgrass prairies. In addition, breeding habitat is almost exclusively shortgrass prairie. We note that recent aerial photographs of the project site do not indicate the presence of suitable habitat for this species. Therefore, we do not anticipate impacts to this species occurring as a result of the proposed project.

Candidates for Listing and Species of Concern

We also recommend that you review the potential for your project to affect the following species that are either candidates (C) for addition to the threatened and endangered species list or other species of concern (SOC).

Common Name	Status	Scientific Name
Cagle's map turtle	(C)	Graptemys caglei
Big red sage	(SOC)	Salvia penstemonoides

Candidate species are species that are being considered for possible addition to the threatened and endangered species list. There is sufficient information on biological vulnerability and threat(s) to support issuance of a proposal to list, but higher priority listings currently preclude issuance of a proposed rule for those species. Species of Concern are species that have not yet been fully evaluated. These may eventually require listing, particularly if populations are not adequately surveyed for or protected.

Candidate Species and Species of Concern currently have no legal protection. If you find you have potential project impacts to these species the Service would like to provide technical assistance to help avoid or minimize adverse effects. Addressing these species at this stage could better provide for overall ecosystem health in the local area and may avert potential future listing.

The State of Texas provides legal protection for additional species of plants and animals (Texas Parks and Wildlife Code Chapters 67, 68, and 88). We recommend you contact the Diversity Program of the Texas Parks and Wildlife Department, 3000 IH-35 South, Suite 100, Austin, Texas 78704 (512-912-7011) for information concerning animals and plants of State concern.

Wetlands and Native Habitats

Wetlands provide valuable fish and wildlife habitat as well as contribute to flood control, water quality enhancement, and groundwater recharge. We recommend contacting the Fort Worth District Corps of Engineers, Permits Section, CESWF-OD-O, P.O. Box 17300, Fort Worth, Texas 76102-0300, (817) 334-2681 for permitting requirements under Section 404 of the Clean Water Act if it appears that proposed activities on the project site could impact wetlands or other waters of the United States such as streams, rivers, etc.

Construction activities near riparian zones should be carefully designed to minimize impacts. If vegetation clearing is necessary in riparian areas, these areas should be revegetated with native wetland and riparian vegetation to prevent erosion or loss of habitat. We recommend minimizing the area of soil scarification and reestablishing herbaceous vegetation at the proposed work sites. Denuded and/or disturbed areas should be revegetated with a mixture of native legumes and grasses. Species commonly used for soil stabilization are listed in the Texas Department of Agriculture's (TDA) Native Tree and Plant Directory, available from TDA at P.O. Box 12847, Austin, Texas 78711.

We also urge you to take all precautions to prevent sediment from entering streams in the project area and to prevent and/or minimize soil erosion and compaction associated with construction activities. We recommend that you avoid any unnecessary clearing of vegetation and follow established rights-of-way whenever possible. In addition, all machinery and petroleum products should be stored outside floodplain and/or wetland areas during construction to prevent possible contamination of water and soils.

If after reviewing the enclosed information, you need additional advice, guidance, or information, please contact us again. If you determine your project may impact resources that are of concern to the Service, or that have legal protection and require Service permits or consultation, please contact Jessy Wilson of this office at 512/490-0057, extension 231 or the above address.

Sincerely,

bestoth med . 8

David C. Frederick Supervisor



Mr. John Kelly Texas Department of Transportation San Antonio District P.O. Box 29928 San Antonio, TX 78229

RE:

Request for Project Review, City of Schertz, Texas

Channel Improvements on West Deitz Creek and the Associated

Replacement of Culverts at Elbel Road.

Dear Mr. Kelly:

The City of Schertz, Texas has applied for funding from the Federal Emergency Management Agency (FEMA) to improve West Deitz Creek (intermittent creek) and replace the culvert at Elbel Road. Consequently, URS Group, Inc. (URS) has been retained by FEMA to prepare an Environmental Assessment for the improvement of West Deitz Creek and the associated replacement of culverts at Elbel Road within the City of Schertz, Texas. The purpose of the improvements is to provide greater flood protection for the City of Schertz. The City of Schertz initiated correspondence with the Texas Department of Transportation in March of 1999. However, the City was unable to provide URS with an official response on this project.

On behalf of FEMA, and in compliance with the National Environmental Policy Act of 1969, as amended, URS requests that your agency review the proposed action and provide comments and any available information on resources under your agency's jurisdiction within the project area.

The improvements start at East Deitz Creek and follow the West Deitz Creek channel wast through the city and end at Maske Road. The proposed project area extends approximately 1.5 miles and varies in characterization. The channel has been improved at Hibel Road, but consists of only a small ditch near Maske Road. West Deitz Creek would be excavated to a 224-foot-wide flat bottom with 3 to 1 side slopes. Velocity dissipaters would be installed at intervals to facilitate water drainage from surrounding areas. The current bridge at Hibel Road would be replaced with a larger bridge with 16 10-foot by 8-foot box culverts. These improvements have been designed to accommodate a 100-year storm event. A map showing the locations of the proposed project is attached.

Please direct any comments and information directly to me at the letterhead address. If you have any questions please feel free to contact me at (301) 670-3387.

Sincerety,

URS Group, Inc.

Ryan Thompson Environmental Planner

Enclosures as noted

cc: Dennis Lee, FEMA Region VI

URS Corporation 200 Orcherd Ridge Orive, Suite 101 Galthersburg, MD 20678-1978 Tel: 301-258,9780 Fer: 201-869,2043



P.O. BOX 29928 • SAN ANTONIO, TEXAS 78229-0928 • (210) 615-1110

November 19, 2001

Mr. Ryan Thompson URS Corporation 200 Orchard Ridge Drive, Suite 101 Gaithersburg, MD 20878-1978

Dear Mr. Thompson

We have reviewed the request from URS Group, Inc. in the letter dated August 17, 2001. The request was for TxDOT to provide any information to assist URS Group, Inc. in conducting an Environmental Assessment for a channel improvement project, on West Deitz Creek in the City of Schertz, to be funded by FEMA. We have determined that the limits of this project do not affect our highway system. Any necessary improvements to the channel of West Deitz Creek at FM 3009 were already incorporated in the reconstruction of the roadway.

Also, we have reviewed the request from URS Group, Inc. in the letter dated August 20, 2001. The request was for TxDOT to provide any information to assist URS Group, Inc. in preparing a Categorical Exclusion for the replacement of two bridges in Guadalupe County, to be funded by FEMA. The first bridge is on Santa Clara Road crossing Santa Clara Creek. This location is not on the State's Highway System and there is not an off-system bridge replacement project currently scheduled by the TxDOT. The second bridge is on Gembler Road crossing Santa Clara Creek. This location is not on the State's Highway System, but there is currently an off-system bridge replacement project scheduled for September 2004. We have contacted Guadalupe County to determine if they are still wishing to replace this bridge under TxDOT's off-system bridge replacement program. They have advised us that they no longer wish TxDOT's assistance in replacing this bridge. We have informed them to send their official response to us in writing and we are expecting the letter in the near future.

If you have any questions, please contact Brien Hocher, P. E. or myself at P. O. Box 349, Seguin, Texas 78156-0349 or via telephone (830)303-0130.

Sincerely,

rank P. Holzmann, P. E.

Area Engilheer

SCS



The State Agency for Historic Preservation

GEORGE W. BUSH, GOVERNOR

JOHN L. NAU, III. CHAIRMAN

F. LAWERENCE OAKS, EXECUTIVE DIRECTION

April 5, 1999

Mr. Larry Stevenson 1400 Schertz Parkway P.O. Drawer I Schertz, Texas 78154-0890

Re: Project review under Section 106 of the National Historic Preservation Act of 1966 and the Antiquities Code of Texas
Schertz Drainage Channel Improvement Project
FEMA

Dear Mr. Stevenson:

Thank you for your correspondence describing the above referenced project. This letter serves as comment on the proposed federal undertaking from the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission. As the state agency responsible for administering the Antiquities Code of Texas, these comments also provide recommendations on compliance with state antiquities laws and regulations.

The review staff, led by Mr. Ed Baker, has completed its review. Although no archeological sites are recorded within the boundaries of the project area, very little professional survey has been conducted in the project area. After reviewing our files, we believe that some of the area, particularly (but not limited to) the area nearest Cibolo Creek and the confluence of East and West Dietz Creek, has potential for containing sites that may be eligible for inclusion in the National Register of Historic Places.

Prior to construction, an archeological survey of portions of the project area that are likely to contain sites should be conducted by a qualified professional according to Archeological Survey Standards for Texas (copy enclosed). These include floodplains, alluvial deposits, and drainage margins within approximately 200 feet of channel centerlines that will be, or could be, affected by construction. Within these zones, the survey should include shovel tests and/or backhoe trenches sufficient to identify subsurface cultural materials. Any cultural materials recovered should be curated according to 36CFR79. A report of investigations should be produced in conformance with the Secretary of the Interior's Guidelines for Archeology and Historic Preservation, and submitted to this office for review.

We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this federal and state review process, and for your efforts to preserve the irreplaceable heritage of Texas. If you have any questions concerning our review or if we can be of further assistance, please contact Ed Baker at 512/463-5866.

Sincerely,

William a Thousand

for

F. Lawerence Oaks, State Historic Preservation Officer

FLO/clb

enclosure: Archeological Survey Standards for Texas



Archeological Survey Standards for Texas

The State Agency for Historic Preservation

These minimum survey standards have been developed by the Archeology Division of the Texas Historical Commission in consultation with the Council of Texas Archeologists. The standards identify the least amount of work that will be considered acceptable for intensive archeological surveys of areas 200 acres or less. These standards are not intended to limit additional work (i.e., more shovel tests or backhoe trenches) that may be deemed necessary to identify archeological sites on the basis of the Area of Potential Effect, anticipated impacts, or the likelihood of encountering significant cultural resources. Survey methodologies for project areas larger than 200 acres should be discussed with the Archeology Division prior to implementing the survey.

MINIMUM SURVEY STANDARDS

for Project Areas of 200 Acres or Less

Transect Interval¹

30 m

Shovel Tests/Acre ²	Project Area Size 1-10 acres 10-100 acres 100-200 acres	Shovel Tests/Acre 1/acre 1/2 acres 1/3 acres	
No. of Shovel Tests to Define Site Boundaries 3		6	
Average Rate of Survey (Acres/Person/Day)		20	
Backhoe Trenches/3 Acres 4		. 1	

 $^{^{\}dagger}$ Transect intervals should be reduced to 15 m in far West Texas (from the Pecos River west to El Paso).

² Shovel tests must be dug whenever vegetation obscures surface visibility (except on slopes greater than 20%). Much of the eastern half of Texas is covered with vegetation, requiring shovel tests, whereas much of the western half has good ground surface visibility. However, any area in the state that has less than 30% ground surface visibility requires shovel tests.

³ Shovel tests are only necessary to define boundaries on sites with less than 30% ground surface visibility.

⁴ Backhoe trenches are required in alluvial settings in addition to shovel tests (trenches are estimated to have a length of 5 m).



DEC 1 4 2001

TEXAS HISTORICAL COMMISSION

December 13, 2001

Mr. Ed Baker State and Federal Reviewer Texas Historical Commission Archeology Division 108 West 16th Street Austin, Texas 78701

Draft Report, Phase I Archaeological Survey, West Dietz Drainage Re: Improvement Project, City of Schertz, Guadalupe County, Texas FEMA-1257-DR-TX Texas Autiquities Permit No. 2785

Dear Mr. Baker:

At the request of the Federal Emergency Management Agency (FEMA), URS Group. Inc. is submitting two (2) copies of the above referenced report for your review, pursuant to Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended. The report has been prepared in accordance with applicable state and federal standards by investigators who meet the Secretary of Interior's (Historic Preservation) Professional Qualification Standards for the discipline of archaeology.

If you have any questions, please feel free to contact Mr. Justin Patton, who conducted the fieldwork and is the primary author of this report, at (301) 670-5470, or myself, at (301) 670-3358.

Sincerely. Thomas W. Bodor, RPA Senior Archaeologist

Enclosure

Kyle Mills, FEMA Region VI Co:

NO HISTORIC PROPERTIES AFFECTED PROJECT MAY PROCEED

for F. Lawerence Cake State Historio Preserva

Please aubmit 20 final report copi

for F. Lawelinee Oale State Historic Freen

200 Orohard Ridds Drive. Bulle 101

2、想象必要的。

URS

Telephone Conversation Record

Date:	8/27/01		Time:	N/A
Project	Texas Unmet Needs - Ci	ity of Schertz West Dietz	Creek Drain	nage Improvement Project
	. MIL 12	171-1-		
From:	Affiliation	Telephone		Location
Recorded By:	Ryan Thompson		URS	CORPORATION
SUBJECT:	Edwards Aquifer R	echarge Zone		,
			,	
	<u> </u>			

Record: I spoke with Jon Mauser of the Texas Natural Resource Conservation Commission. He works in the Edwards Aquifer Protection Program Group. He verbaly confirmed that the project in Schertz would have no effect on the Edwards Aquifer System. I asked him if any permits would need to be obtained by the applicant in order to do the improvements with respect to the Aquifer, he answered no. In addition to my project I also asked him if any project in Guadalupe County would have an effect on the aquifer, he answered no. I asked him if projects in the City of La Vernia, Cuero, or Wharton would effect the aquifer, he answered no. I asked him if any permits with respect to the aquifer would need to be obtained by the applicants in those cities, he answered no. He also referred me to the TNRCC web page for future reference. It is http://www.tnrcc.state.tx.ue/EAPP.

Pour Thompson

Appendix D Public Notice

PUBLIC NOTICE

Environmental Assessment for Construction of the West Dietz Creek Channel Improvements, in the City of Schertz, Guadalupe County, Texas. FEMA-1257-DR-TX

Interested persons are hereby notified that the Federal Emergency Management Agency (FEMA) is proposing to assist in the funding of the construction of the West Dietz Creek Channel Improvements in the City of Schertz in Guadalupe County, Texas. In accordance with the National Environmental Policy Act of 1969, the CEQ regulations implementing NEPA (40 CFR Parts 1500-1508), the National Historic Preservation Act, and the implementing regulations of FEMA (44 CFR Part 9 and 10), an Environmental Assessment (EA) is being prepared to assess the potential impacts of the proposed action on the human and natural environment.

The EA evaluates alternatives that provide for compliance with applicable environmental laws. The alternatives to be evaluated include (1) No Action; (2) Construction of the West Dietz Creek Channel Improvements- 100-Year Design; and (3) Construction of the West Dietz Creek Channel Improvements- 50-Year Design.

The draft EA is available for review between August 5, 2002 and August 25, 2002, at the Schertz Public Library, 608 Schertz Parkway, City of Schertz, Texas 78154 between the hours of 8 a.m. and 5 p.m.

Written comments regarding this action should be directed no later than 5 p.m. August 25, 2002, to Ryan Thompson, URS Group, Inc., 200 Orchard Ridge Drive, Suite 101, Gaithersburg, MD 20878. Telephone (301) 670-3387.



Appendix E Public Comments No public comments were received.

