



**TEXAS WATER COMMISSION**

**Report 89-02**

**GROUND WATER INVESTIGATION  
AND  
CONTAMINATION POTENTIAL  
OF A  
PORTION OF SOUTHEAST  
VAL VERDE COUNTY, TEXAS**

by  
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February 1989

# TEXAS WATER COMMISSION

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# **GROUND WATER INVESTIGATION AND CONTAMINATION POTENTIAL OF A PORTION OF SOUTHEAST VAL VERDE COUNTY, TEXAS**

## **INTRODUCTION**

### **Purpose and Scope**

The purpose of this report is to present the results of a study that was made to: 1) delineate a protection area for San Felipe Springs which serves as Del Rio's public water supply; 2) assess the future impact to the City of Del Rio's drinking water due to present and future development in and around the City of Del Rio; and 3) review public participation and city actions regarding the San Felipe Springs protection area.

The scope of this project included a limited field investigation, a study of the general geology, occurrence of ground water in the area, land use, a review of selected water wells within the study area, and a written report summarizing the findings. The investigation employed techniques judged likely to produce beneficial information on the questions of potential contamination of ground water in and near the City of Del Rio.

### **Location**

Del Rio, the county seat and principal commercial center of Val Verde County, is 153 miles west of San Antonio and 426 miles east-southeast of El Paso. The area of review (Figure 1) encompasses all of the City of Del Rio; extends north of Del Rio by approximately 27 miles; is bound on the west and south by the Rio Grande and to the east by the Val Verde County Line.

### **Previous Investigations**

The earliest known investigation of ground water in Val Verde County was by Frazier (1940). Frazier reported records of wells and springs, drillers' logs,

chemical analyses of water, and a map showing the well and spring locations.

Local investigations of ground water conditions near Del Rio were made by Bennett (1942) and Bennett and Livingston (1942). Records of water levels in observation wells in Kinney, Uvalde, and Val Verde Counties were tabulated by Follett (1956).

The geology of a 3-mile-wide strip along the Rio Grande was mapped by the International Boundary and Water Commission (1950-51) and published by the Bureau of Economic Geology of the University of Texas. Guyton et al (1964) conducted an investigation of the ground water conditions in the Del Rio area for the Del Rio Utilities Commission. The geology of part of the county has been mapped by Freeman (1964 b,c and 1965) and by Sharps and Freeman (1965).

Chemical analyses of water samples from wells and springs in southwestern Val Verde County and a potentiometric-surface map of the Edwards and associated limestones covering most of the county were prepared and published by the International Boundary and Water Commission (1956). A reconnaissance report on the ground water resources of the middle Rio Grande Basin, including Val Verde County, was prepared by Brown et al (1965).

Reeves and Small (1973) determined the occurrence, availability, dependability, and quality of ground water in Val Verde County.

### **Acknowledgements**

The participation and cooperation of the City of Del Rio is especially appreciated. Without the assistance of Mr. Dan Burr, Del Rio City Councilman, this project would not have been as successful. Cooperation of federal and other state agencies is also gratefully appreciated.

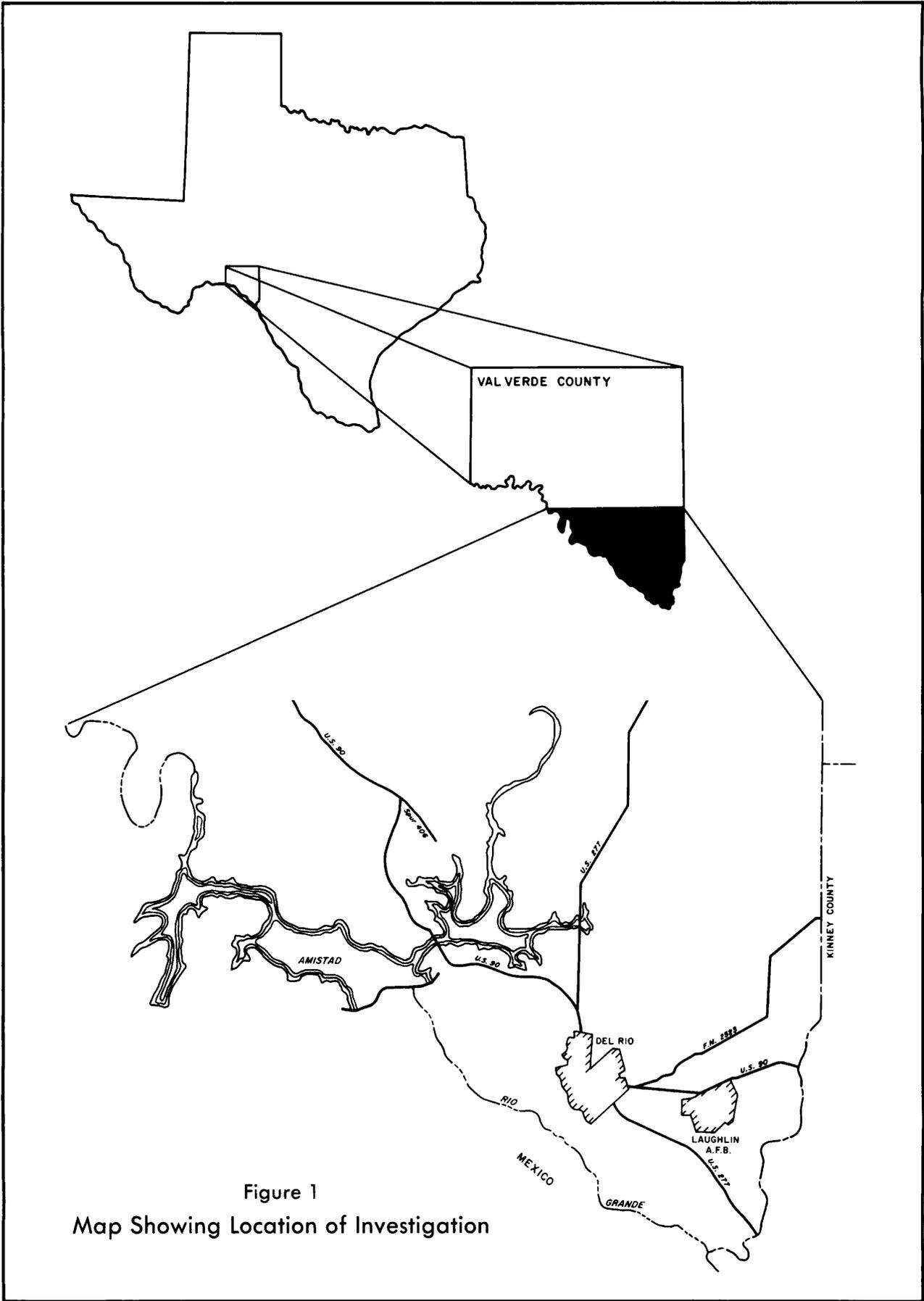


Figure 1  
Map Showing Location of Investigation

The author also thanks Mr. David Terry (University of Miami, Ohio) for his assistance in preparing the public participation section of this report.

## **HYDROGEOLOGY**

### **Stratigraphy**

The surface geology of the study area is composed of very shallow, loamy soils that are cobbly and stony and support little or no vegetation. Most of the soils are of Pleistocene and Holocene age and range in thickness from a few inches up to 50 feet thick in the Rio Grande Valley near Del Rio.

Underlying the surface soils in the area is the Eagle Ford Shale. The Eagle Ford is comprised of dark gray shale interbedded with flaggy limestone. The Eagle Ford does not exceed 25 feet in thickness in the study area.

Underlying the Eagle Ford shale is the Buda Limestone which is comprised principally of white dense limestone. It is absent due to erosion in some part of the area, but where present, it ranges in thickness from 40 to 60 feet. Within the study area, the Buda Limestone occurs above the watertable and is not known to yield water to wells.

Underlying the Buda Limestone is the Del Rio Clay. It is absent in places due to removal by erosion. Its maximum thickness in the study area is greater than 200 feet. The Del Rio Clay is comprised principally of blue clay, which weathers yellow, and some thin sandy limestone beds. The Del Rio Clay does not yield water to wells.

Underlying the Del Rio Clay is the Georgetown Limestone. In the study area, the upper 20 feet of the formation is exposed and consists of a soft, marly, very light gray, pyritic limestone. In the subsurface, the thickness ranges from 400 feet to slightly more than 500 feet.

The Georgetown Limestone is the principal aquifer in the southern part of the county where the Kiamichi separates the Georgetown and Edwards Limestones. Wells tapping the Georgetown yield very small to large quantities of fresh, hard water used for domestic supply, industry, and irrigation. Sinkholes are numerous in outcrop areas. The holes or shafts may open up at depth into small, roughly circular rooms or into a series of long, narrow, nearly horizontal passageways along solution-widened faults, joints, or bedding planes.

Beneath the Georgetown Limestone lies the Kiamichi Formation which ranges from about 50 feet thick (less than 5 miles north of the study area) to about 283 feet thick near Del Rio. The Kiamichi consists chiefly of dark-brown to dark-gray shaly limestone and dark-gray to black, brittle, calcareous shale. In general, the Kiamichi Formation contains a slightly saline to moderately saline water in the study area.

Underlying the Kiamichi are the Edwards and Comanche Peak Limestones. The Edwards and Comanche Peak Limestones are light-gray, dense, hard, massive, cherty limestones that are locally dolomitic. In the northern portion of the study area, the thickness of the Edwards and Comanche Peak Limestone is about 300 feet. Water of good chemical quality from wells tapping this unit is used for irrigation, domestic supply, and livestock in the northern two-thirds of the county. In this area, the Edwards generally is not fully saturated and the water levels are deep.

The Glen Rose Limestone, the oldest formation exposed in Val Verde County crops out along the Pecos River in the extreme northwestern part of the county. The Glen Rose consists predominantly of shale and shaly limestone and averages about 1300 feet thick in the study area but decreases to 380 feet in northern Val Verde County. Generally, the water is too mineralized for domestic use.

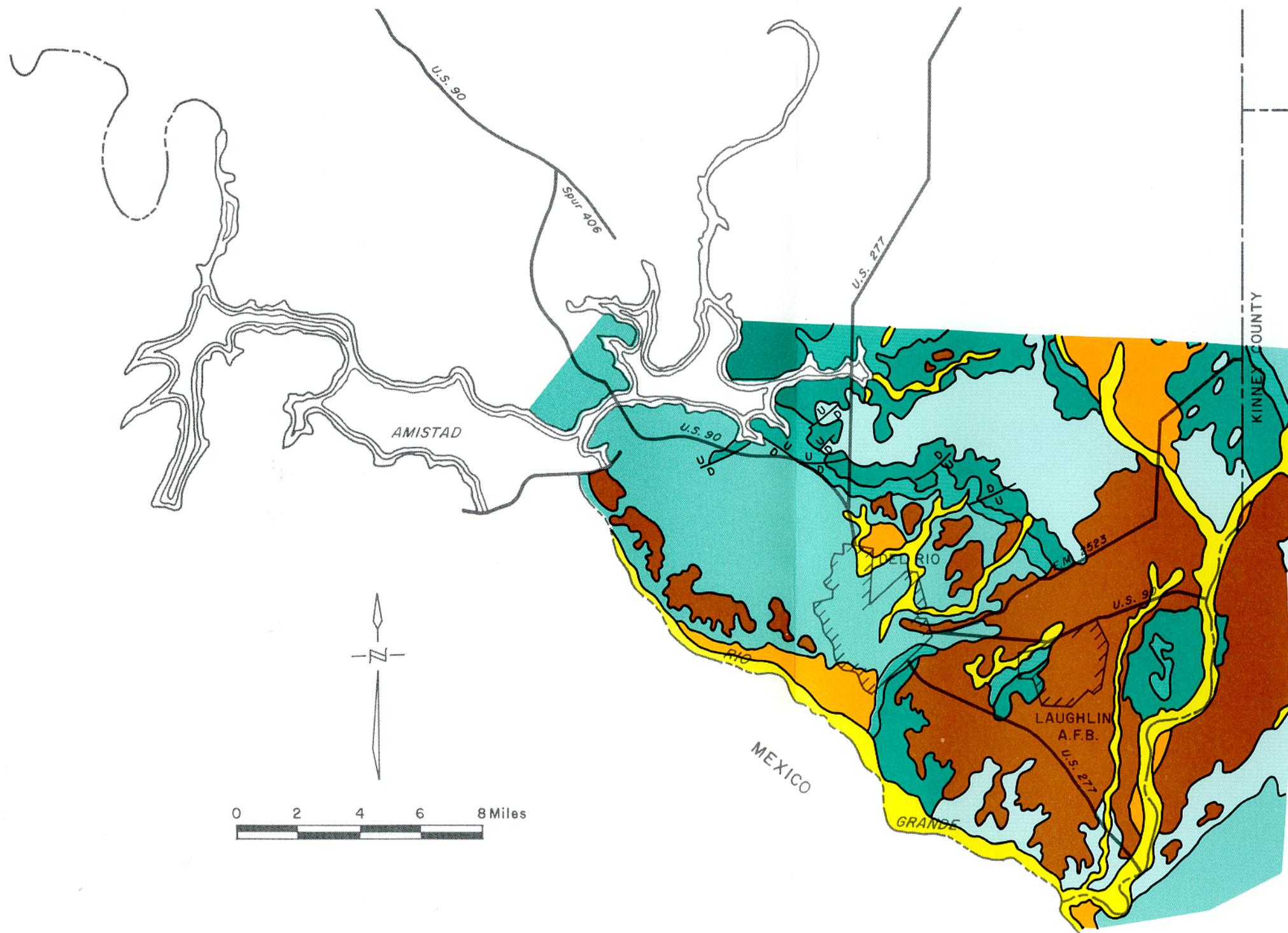
The lowermost Cretaceous rocks penetrated in oil tests in Val Verde County are referred to in this report as basement sands. The basement sands are composed chiefly of sand, sandstone, shaly limestone, and dolomite. Thickness of the unit is variable but is generally less than 50 feet in most of the county. Not enough deep wells have been drilled to determine the water-bearing properties of the unit. Nevertheless, it is likely that the water available in the basement sands would be too highly mineralized for most uses.

In the study area, the basement sands are underlain by limestone, dolomite, shale, sandstone, volcanic rocks, and metamorphosed rocks such as marble, phyllite, slate, and quartzite. The pre-Cretaceous rocks contain water that is too highly mineralized for most uses.

A geologic map of the study area is shown in Figure 2.

### **Water Levels**

Recharge to the aquifers in Val Verde County occurs chiefly by direct infiltration of precipitation,



- EXPLANATION**
- Terrace
  - Alluvium
  - Uvalde Gravel
  - Eagle Ford Group
  - Buda Limestone
  - Del Rio Clay
  - Edwards and associated limestones
  - Contact
  - Fault
- U, upthrown side; D, downthrown side

Figure 2  
Geologic Map

(Surface geology adapted from the Del Rio Geologic Atlas Sheet; Bureau of Economic Geology, The Univ. of Texas at Austin)

streamflow on the outcrop areas, and water contained in Amistad Reservoir. The regional south-southwest hydraulic gradient is shown on Figure 3. The hydraulic gradient is at right angles to the water level contours representing the piezometric surface.

In the study area, ground water is discharged to the surface by springs and seeps, by evapotranspiration where the water table is near the surface, and by wells. The quantity of water discharged by wells is very small compared to that discharged by springs and seeps. The largest of these springs are San Felipe Springs and Cantu Spring. The flow of the springs during drought periods is sustained primarily by underflow into the county and from storage in the aquifer north and east of the springs. During wet periods, part of the discharge of the springs is from local recharge in nearby sinkholes. However, much of this water moves off rapidly and is discharged through the springs.

The average daily discharge of San Felipe Springs and Cantu Springs in 1986 was 90 million and 2.8 million gallons per day respectively. Municipal supply wells have the potential to produce 1.9 million gallons per day. This discharge results in the inferred cone of depression as shown in Figure 3. The contributing area for San Felipe Springs, about 1,000 square miles, is east and northeast of Del Rio. Records of measurements of water levels in the study area are given in Table 1 and on Figure 3.

## **WATER QUALITY**

The chemical constituents of ground water in the study area originate principally from the soil and rocks through which the water has moved. The suitability of any water supply depends upon its intended use and various standards of water quality have been developed for most categories of water use. Water quality problems involving bacterial content and physical characteristics frequently can be handled economically; however, the removal of certain undesirable minerals may be difficult and expensive.

The approximate boundary between fresh and slightly saline water in the Georgetown Limestone in the study area is shown in Figure 4. The exact limit of occurrence of fresh water in the Edwards Limestone is not known but is believed to be north of this line.

Previous studies indicate that the dissolved solids content of water samples in the study area range from 188 to 7898 mg/l with the highest levels occurring in the southern portion of the area. This increase

in the dissolved solids in the southern half probably results from poor circulation of ground water.

Although nitrate levels in East San Felipe Springs are below the established standard set by the U.S. Public Health Service, Texas Health Department records indicate a steady increase in nitrate levels covering the period of record. Increasing sulfate and nitrate levels are shown in Figure 5.

## **POTENTIAL FOR CONTAMINATION**

Table 2 illustrates that man-influenced ground water quality problems are most commonly related to: 1) water-soluble products that are placed on the land surface and in streams, 2) substances that are deposited or stored in the ground above the water table, and 3) material that is stored, disposed of, or extracted from below the water table.

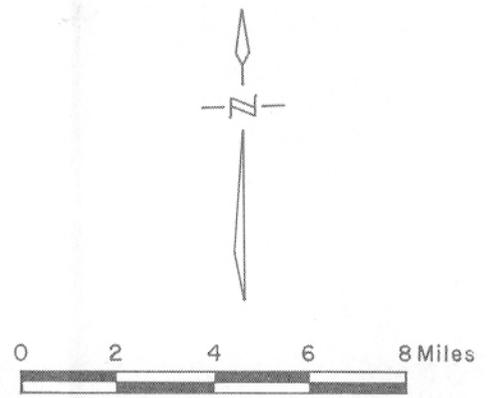
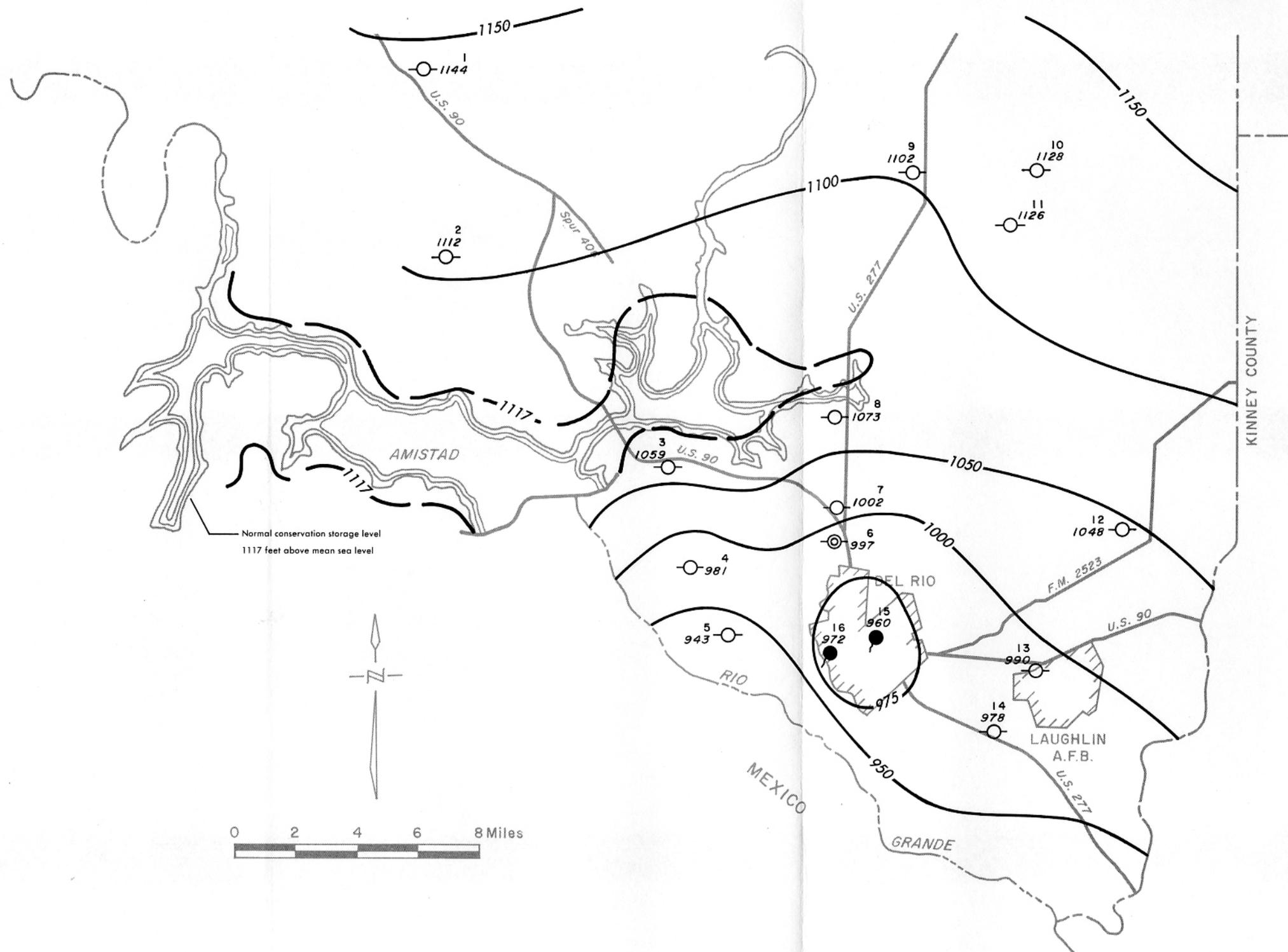
Potential sources of contamination of ground water observed in the study area included: 1) unprotected area surrounding San Felipe Springs, 2) improper solid waste management, 3) abandoned wells, 4) septic systems, and 5) underground storage tanks.

### **Unprotected Area Surrounding San Felipe Springs**

The first possible source of potential ground water pollution is the unprotected area around San Felipe Springs. At the time of the investigation, no fence or other means of protection exists around the west San Felipe Spring and the east San Felipe Spring is protected only to a minimum. Access to both springs is readily available to the public and thus creates a direct avenue of pollution potential.

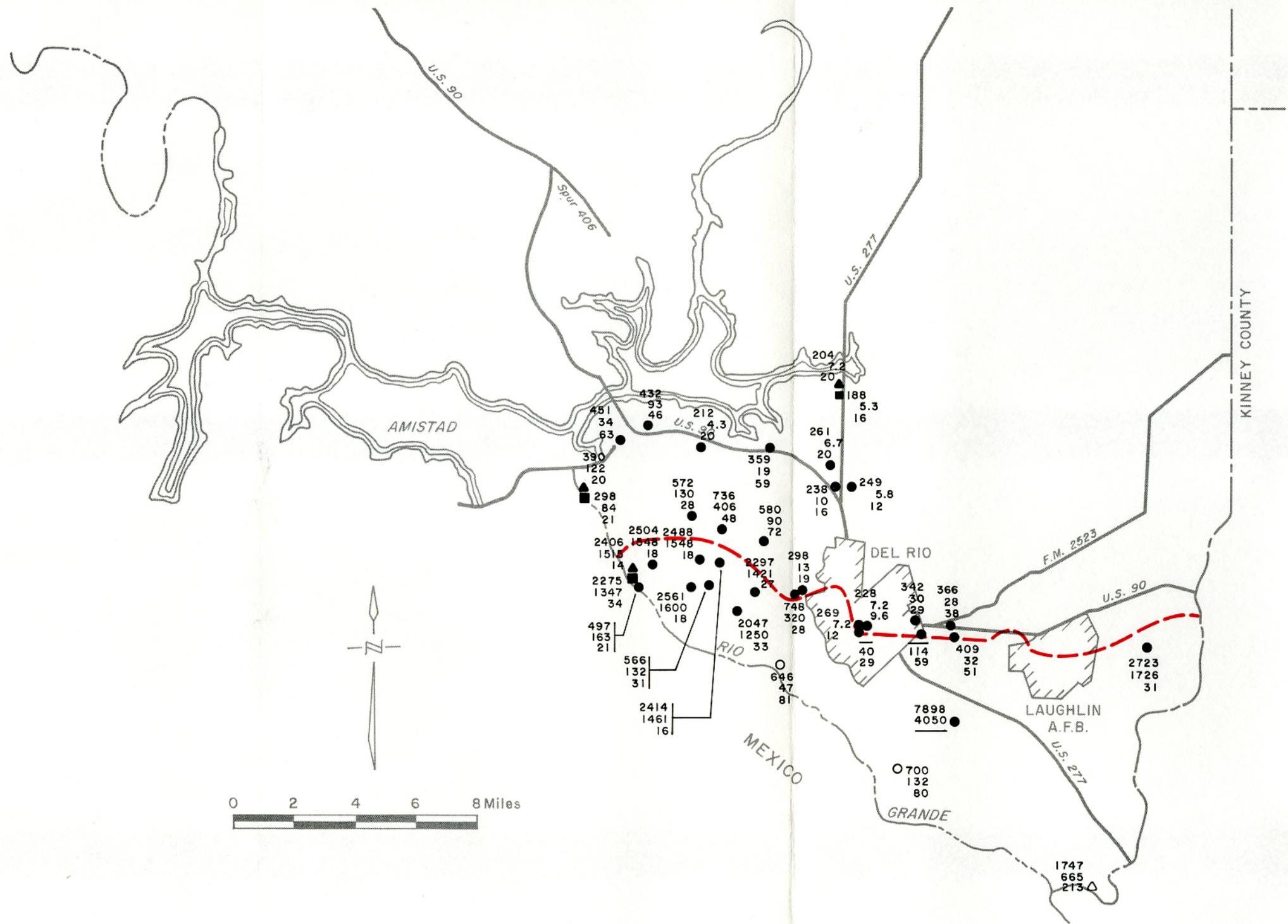
### **Improper Management of Solid Waste**

Another likely source of pollution to ground water in the Del Rio area is improper management of solid waste. Many residences and businesses in the Del Rio area risk contamination of their own water wells by the method of wasting or dumping chemicals, garbage, or old equipment. As rainwater infiltrates through the trash, it accumulates a wide variety of chemical and biological substances. The resulting fluid, or leachate, may be highly mineralized. These same practices present potential harm to surface water in the area. Surface runoff from solid waste disposal areas could affect the quality of water in San Felipe Creek and Springs.



- EXPLANATION**
- <sup>10</sup>/<sub>1128</sub>  
Well used for control  
Top number indicates well identification  
Bottom Number indicates altitude of water level
  - Domestic/Stock Well
  - ⊙  
Municipal Supply Well
  - Spring
  - 1000 —  
Line showing approximate altitude of water level in feet above mean sea level

Figure 3  
Water Levels in Feet Above Mean Sea Level



EXPLANATION

Source of water

- Alluvium
- △ Boquillas Flags
- Edwards and associated limestones
- ▲ Georgetown Limestone
- Edwards Limestone

Sampled well

- 304 Dissolved solids, in milligrams per liter
- 29 Sulfate, in milligrams per liter
- 25 Chloride, in milligrams per liter
- Line indicates no data

— — — — —  
 Approximate boundary between fresh and slightly saline water in Georgetown Limestone

Figure 4  
 Chemical Quality of Ground Water

**Table 1.—Records of Selected Wells**

Well No.	Owner	Depth	Elevation of Land Surface	Water Level	
				Below Land Surface	Date
1	F.H. Whitehead	690'	1480'	336'	10-86
2	W.T.O. Holman Est.	525'	1250'	138'	10-86
3	Amistad Land Co.	—	1195'	136'	10-86
4	Mrs. M.S. Newton	180'	1090'	109'	10-86
5	Mrs. E. Daughtrey	97'	955'	12'	10-86
6	City of Del Rio	431'	1085'	88'	10-86
7	J.C. McReynolds	371'	1091'	89'	10-86
8	C. Kelley	1000'	1170'	97'	10-86
9	Amistad Ranch Co.	500'	1360'	258'	10-86
10	Walter Gillis	1100'	1440'	312'	10-86
11	Walter Gillis	445'	1364'	238'	10-86
12	Bluff Creek Ranch	—	1130'	82'	10-86
13	U.S. Air Force	750'	1057'	67'	10-86
14	T.R. Brite Estate	1200'	1050'	72'	10-86
15	City of Del Rio	Spring	960'	—	—
16	Queen City Realty & Investment Co.	Spring	972'	—	—

### Abandoned Wells

Abandoned wells are considered to be one of the largest sources of nonpoint source pollution of ground water within Texas. Of greatest concern are improperly abandoned high-capacity municipal, industrial, and irrigation wells.

Most wells in this category are old and improperly constructed. In many cases, there is inadequate or a total absence of casing within these holes and most of them have been left uncapped. These wells vary in depths and in many of them, hydraulic communica-

tion is present between more than one water-bearing unit allowing inter-aquifer exchange and water degradation. These conditions also allow an undetermined amount of contaminants to enter the ground water during storm-related events, and from defective storage tanks, septic tanks, etc., via the well's borehole. Additionally, they are a safety hazard to human and animal life.

One abandoned well was observed in an area of the city in which the public was disposing of trash and other potentially dangerous materials.

**Table 2.—Sources of Ground Water Quality Degradation**

**Ground Water Quality Problems that Originate on the Land Surface**

1. Infiltration of polluted surface water
2. Land disposal of either solid or liquid wastes
3. Stockpiles
4. Dumps
5. Disposal of sewage and water-treatment plant sludge
6. De-icing salt usage and storage
7. Animal feedlots
8. Fertilizers and pesticides
9. Accidental spills
10. Particulate matter from airborne sources

**Ground Water Quality Problems that Originate in the Ground Above the Water Table**

1. Septic tanks, cesspools, and privies
2. Holding ponds and lagoons
3. Sanitary landfills
4. Waste disposal in excavations
5. Leaking from underground storage tanks
6. Leakage from underground pipelines
7. Artificial recharge
8. Sumps and dry wells
9. Graveyards

**Ground Water Quality Problems that Originate in the Ground Below the Water Table**

1. Waste disposal in well excavations
2. Drainage wells and canals
3. Well disposal of wastes
4. Underground storage
5. Secondary recovery
6. Mines
7. Exploratory wells
8. Abandoned wells
9. Water-supply wells
10. Ground-water development

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## **Septic Systems**

Many businesses and newly developed residential areas in and around Del Rio produce sewage. The suburban development not served by municipal sewage systems disposes of wastes by septic systems and cesspools. These systems are generally completed in the Georgetown Limestone. The Georgetown Limestone is characterized by honeycombed limestone with numerous caverns formed by the dissolution of limestone by water percolating along joints and faults. Since water is conducted preferentially through this conduit system, the Georgetown is a comparatively poor medium for filtering and absorbing contaminants from wastewater. Additionally, if a residence or small business dumps chemicals, paint thinner, or even bleach down the drain, biological organisms necessary for proper operation of the

septic system will die. Without the organisms, raw sewage and chemical wastes are discharged to drain fields and near surface soils. It is probable that such instances have occurred.

There is a simple, objective approach that can be used to evaluate the pollution hazard involved in the operation of private septic systems (Cartwright and Sherman, 1974). Using the standard percolation test as a measure of permeability, the housing density as an approximation of volume of effluent, and the thickness of earth materials between the discharge zone and the shallowest aquifer as an approximation of attenuation of effluent, a rough estimate of the pollution hazard of a septic system can be made. The housing density is based on the number of septic systems in a given area (area of one-fourth of a

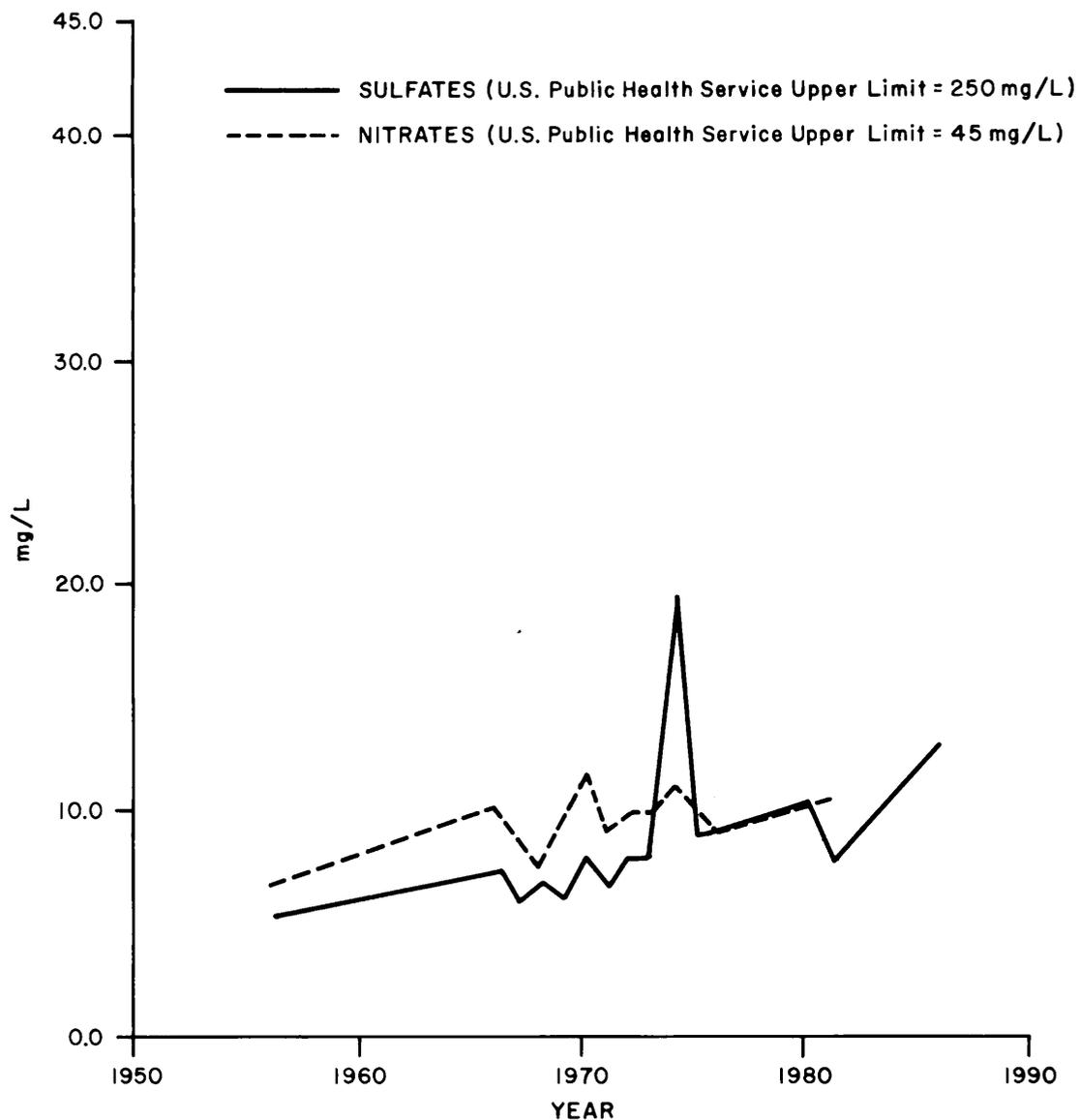


Figure 5.—Sulfate and Nitrate Levels in East San Felipe Springs From 1956 to Present

square mile, or 160 acres). Values of pollution index (Pi) greater than 10 suggest that a potential for pollution exists and that more detailed information about the site should be gathered. If the Pi value is less than 10, the potential for significant pollution of the ground water is probably fairly low. It should be noted that in situations where a thin layer of a slowly permeable material is underlain by more permeable deposits, the pollution index might be low even though some potential for pollution might exist. A pollution index curve has been calculated for the Del Rio area and is presented in Figure 6.

### Underground Storage Tanks

This category covers all underground storage tanks (UST's) and consists of buried tanks and their

associated piping systems, which are used to store not only petroleum products, but a wide range of other products such as acids, metals, industrial solvents, technical grade chemicals, and their wastes.

Underground storage tanks are usually completed in the shallow soil horizons within ten (10) feet of the land surface. In the Del Rio area, these tanks can be hydrologically connected to the municipal aquifer by improperly completed or abandoned wells.

### THE SAN FELIPE PROTECTION AREA

DRASTIC (Aller, et al, 1985), a standardized value system for evaluating ground water pollution using hydrogeologic settings, has been calculated for certain wells in the study area and presented in

Figure 7. Each DRASTIC value incorporates depth to water table, net recharge, aquifer media, soil media, topography, impact of the vadose zone, and hydraulic conductivity of the aquifer. These settings form the basis for the entire system and create units that can be graphically displayed on a map. The relative ranking scheme uses a combination of weights and ratings to produce a numerical value, called the DRASTIC INDEX, which helps prioritize areas with respect to ground water contamination vulnerability.

The DRASTIC contours (Figure 7) were also assumed to be moving intrusion fronts in which transit times were determined for the fronts to reach San Felipe and Cantu Springs. Estimates of the head (Figure 3), porosity, and permeability of the aquifer were used to calculate the velocity of the moving interface (as for example the salt water-fresh water interface in a coastal aquifer). The transit times

resulting from these velocities were then multiplied by a factor of 10 based on Edwards aquifer tracer studies conducted in the San Antonio Region during the early 1970's (Klemt, 1986).

The delineated proposed protection area (Figure 8), for the most part, was derived from the DRASTIC and ground water velocity studies. However, capture-zone type curves, water levels, soil boring data, visual observations of the author, and water quality data were also used.

## PUBLIC PARTICIPATION

Education should be seen as an essential tool in public participation. It is a means for understanding a problem, how it may be identified, its consequences,

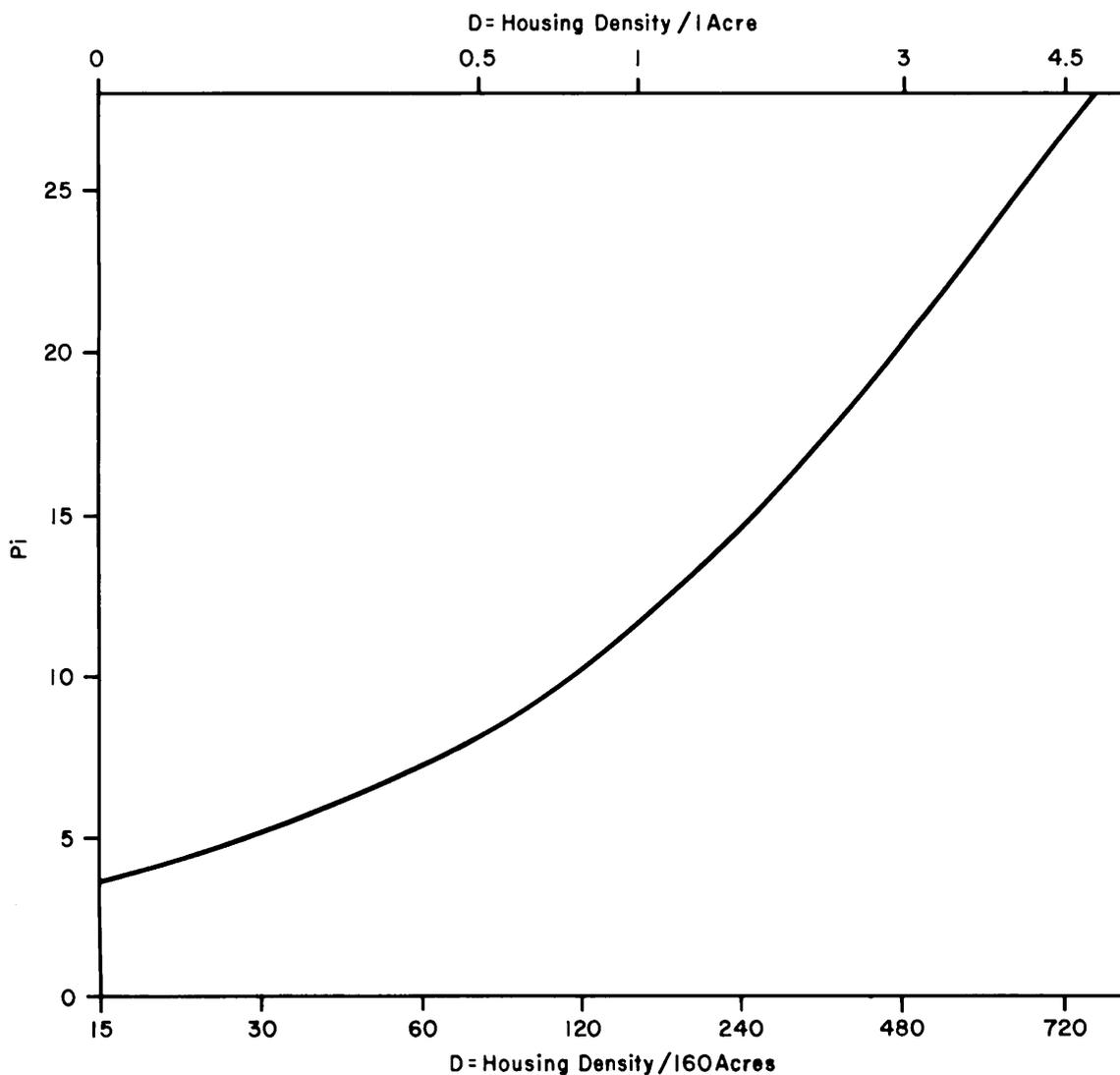


Figure 6.—Potential for Pollution From Septic Tanks in Study Area

and how it may be dealt with. The City of Del Rio's San Felipe Springs Project is a prime example. In the fall of 1986, representatives from the city attended the annual Wellhead Protection (WHP) Seminar conducted by the Texas Water Commission in Austin, Texas. This seminar covered several topics related to local ground-water protection activities. At its conclusion, the Del Rio representatives returned to their city and, armed with their new found information, discovered a situation which they felt was a possible threat to their drinking water supply. Mayor Hugh Williams, Chairman of the Utilities Commission, sent a request to the Texas Water Commission on October 6, 1986, asking that the Commission study the Del Rio area. The city wished to have a technical assessment of the vulnerability of their water supply to contamination. This report was the product of that study.

## LOCAL GOVERNMENT

On December 18, 1986, the author made a formal presentation to a joint meeting of the Del Rio City Council and Utilities Commission. On the same evening of the formal presentation, the City Council adopted a five-point plan of action designed to deal with the situation. This five-point plan included the following:

1. Survey all interested property owners to ascertain their long-term development plans in the watershed and to establish the areas for cooperation in the protection of the San Felipe Springs.
2. Prepare for Council consideration an ordinance which prohibits the issuance of any building permit on land which has not been platted in accordance with the city's subdivision regulations.
3. Prepare a master plan which would serve as a development and subdivision guide in the special interest area.
4. Convene a general meeting of all the land-owners in the special interest area to propose development guidelines within the watershed.
5. Study the advisability of cooperative planned unit development contracts which involved utility extension and land-use design commitments between the city and interested developers in the San Felipe Creek watershed.

The City Council took another major step when they commissioned the independent consulting firm of Hogan & Rasor to conduct a full investigation of the special interest area and make specific recommendations as to any regulatory and land use reforms (Hogan & Rasor, 1987a and 1987b). This decision by the council was both technically and politically astute. By hiring an outside firm, Del Rio was able to prevent any political bias from affecting the investigation, often a perceived threat to in-house projects. However, the decision was also based on a practical reason: the city did not have the qualified planning or engineering staff available to effectively carry out such an investigation. Communities with such qualified staff and resources may wish to attempt their own in-house studies, but they should also be aware of any real or imagined political bias and be prepared to defend their methods and conclusions as being objective and a-political. The council felt it was important to stress to the consultant that the focus of the study should be on the environmental protection and urban planning aspects of the problem. The engineering considerations were to be secondary and only supportive in nature.

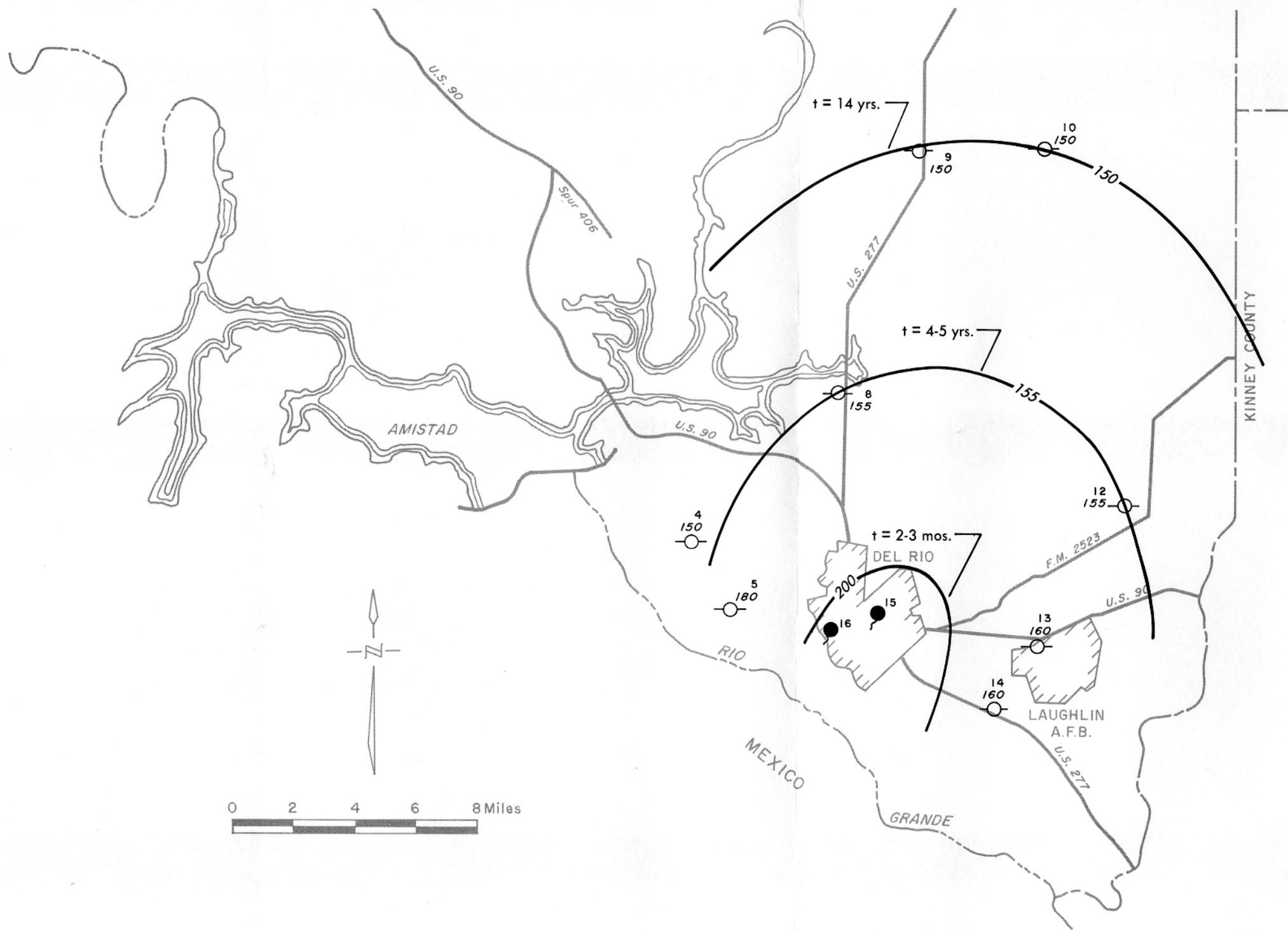
Additionally, the public participation in the reform process was best illustrated not just in the commitment of the council and utilities commission but by the heightened awareness and change in attitude on the part of the general public. Apathy gave way to grave concern. Attitudes of the public changed from "it's our water supply; it's pure; and we take it for granted" to "WOW! something can happen to our water supply and the office holders and city staff better do something to protect it and do it now." This attitude was manifested through anxious letters to the editor of the local newspaper and by comments from members of the public in a wide variety of forums.

Explanatory presentations to civic clubs and service organizations by office holders and the senior city staff were lively events. Council meetings with the protection area on the agenda were well attended.

## Ordinances and Actions Taken

When the Del Rio City Council received interim reports from the Texas Water Commission and the city's private consultants, they began the long policy and ordinance review process.

However, developing permanent regulations was going to require several months of research, deliberation, and public discussion. What the city needed was a means to protect the ground water below the Lowe



- EXPLANATION
- Well used for control  
Top number indicates well identification  
Bottom number indicates DRASTIC value
  - Domestic/Stock Well
  - Spring
  - Line Showing DRASTIC Value
  - $t = 5$  yrs.  
Transport Time to San Felipe Springs

Figure 7  
 DRASTIC Values and Transport Times  
 (Variable Contour Interval)

Estates temporarily while permanent solutions were explored. The Lowe Estates, located in the northeast quadrant of Del Rio, covers 13,500 acres and is situated less than one (1) mile upgradient from San Felipe Springs. Therefore, to prevent further exploitation of the special interest area and to reduce the likelihood for additional damage, the City Council enacted temporary ordinances including a moratorium on construction in the area which effectively halted all construction activities in the area. This out of the way, Del Rio could then turn to the question of long-term management of the land in the San Felipe Springs recharge zone.

In order to provide a more concise illustration of the city's actions, a general description of each ordinance or resolution is listed in the text below while complete unabridged copies can be found in the files of the Texas Water Commission:

1. The Subdivision Ordinance of the Del Rio Code established the framework under which land may be subdivided and developed within the boundaries and Extra Territorial Jurisdictional (ETJ) area of the city. The ordinance had been updated, by coincidence, in January, 1987. However, due to the planning and study efforts throughout 1987, it was necessary again to make major revisions. The final version was adopted on December 2, 1987 (Ordinance No. 0:87-46).
2. Resolution No. R:86-110 announced that the city would not hesitate to use civil litigation as a means of putting a stop to the sale of land by developers who had not submitted their property to the platting process. Although successful, the city saw that it needed additional monitoring and control processes and eventually put a moratorium on all activity in the Lowe region. (Ordinance No. 0:87-51)
3. Ordinance No. 0:87-45 amended Del Rio's zoning regulations according to the recommendations contained in the Hogan & Rasor study. It added new low-density districts to the city zoning categories and stipulated what activities and structures could exist within each district. The ordinance provided heavy penalties for violators.
4. Ordinance No. 0:87-46 revised Del Rio's subdivision regulations broadening the definition of "subdivision" to include *any* partitioning of land into two or more parts. It spelled out how land within the city limits and the ETJ could be subdivided and established

a \$1000.00 per day maximum penalty for violations. The ordinance also mandated that in the future a subdivision must connect with city water and sewer mains if those mains were available or became available at any time. Should city water or sewer be extended to within 1000 feet of a subdivision, the developer would have 54 months to come into compliance.

5. Ordinance No. 0:87-47 basically adopted the TDH Private Sewage Facility Regulations and Construction Standards. However, in some important areas, the standards adopted by the City of Del Rio were more stringent than the TDH standards. For example, it stipulated that no septic system would be permitted to be constructed unless it was designed to be sufficient to handle a house of at least four bedrooms.
6. Ordinance No. 0:87-51 covers two important subjects. First, it officially cancels the moratorium on construction in the Lowe Estates in addition to the extension ordinance. Second, it added a new requirement to the building permit process stipulating that no building permit would be issued without proof of proper platting. It is this point which carries the heaviest impact of the ordinance by effectively plugging what would have been a serious loophole.
7. Resolution No. R:87-136 officially adopted the recommendations resulting from the Hogan & Rasor Report. It further stipulated that the Hogan & Rasor plan should serve as the guiding master plan for all of the city's ordinances which have any bearing on development or any land-use regulation within the protection area.

## **CONCLUSIONS AND RECOMMENDATIONS**

While Ground Water Protection Activities are intrinsically good and should be encouraged, cities should realistically expect some degree of resistance from certain segments in their communities. Quite often, this resistance can be blamed on a lack of knowledge or understanding of the dangers and/or a perceived threat to their activities or livelihoods. Therefore, it is imperative that local governments deal with this resistance as early and as nonconfrontational a manner as possible. This can be accom-

plished by working closely with the media (newspaper, radio, television, news magazine, etc.) by informing them of exactly what is being done. The City of Del Rio did just that by working with the *Del Rio News-Herald* (Appendix A) and radio station talk shows as well as taking advantage of every opportunity to encourage citizen input.

By doing this, information may be disseminated more accurately and to a greater extent and will help build a cooperative working relationship with the news media. Public hearings are also instrumental in allowing the city government to meet with the citizens so that questions may be answered, ambiguities may be cleared up, and to obtain feedback from the community members.

It must be pointed out, though, that there may be members of the community that will still oppose attempts to adopt ground water protection programs despite efforts at gaining their support. This is where the support of the news media and the state becomes indispensable. Endorsement by the local (and possibly even regional) media as well as the state government can be influential by providing the city with the support to effectively counter stiff opposition.

Although the City of Del Rio has successfully enacted ordinances which prohibit or control the potential sources of contamination within their protection area, it is important that the city continue to monitor development within the area. The city should continue site evaluations before approving individual

septic systems, encourage the use of the municipal system for all residents within the protection area, control the use of septic system cleaning solutions, and continue strong enforcement programs to ensure that management programs are working.

The City of Del Rio has done an excellent job in locating abandoned wells within the protection area and assuring that the wells are properly plugged or capped. The city should continue to monitor all active domestic wells within the protection area to assure that when the wells are no longer in use or have been abandoned, they are properly capped or plugged.

The Texas Water Commission is the state agency responsible for the administration of the underground storage tank (UST) program. The city should verify that all active UST's within the WHP areas are registered with the Commission and that all UST's have been checked as to installation, record keeping, and current permits. Moreover, when these active tanks do become abandoned, the city should see that they are removed or otherwise safely abandoned in place.

Finally, the city should re-inventory the protection area for new sources of contamination every two years. The city may wish to contact local service organizations (Lions Clubs, Rotary Clubs, etc.) and solicit their participation in conducting the inventory. A recommended inventory form is included in Appendix B.

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**APPENDIX A**

**NEWS CLIPPINGS**

# Study shows potential pollution of springs

By ANN THOMAS  
News-Herald Writer

In efforts to prevent contamination to Del Rio's drinking source, a study has been released revealing potentials for pollution to the San Felipe Springs.

During Thursday's joint meeting of the Del Rio City Council, Del Rio Utilities Commission and the Planning and Zoning Commission a report was presented by Brad Cross of the Texas Water Commission (TWC).

Cross was in Del Rio Oct. 20-23 to conduct an investigation at the request of the Utilities Commission on the future impact to Del Rio's drinking water due to present and future development in and around the city.

Cross found four potential sources of contamination of ground water: unprotected area surrounding the springs; improper solid waste management; abandoned and improperly plugged wells and septic tanks.

Presently, there is no fence or other means of protection around the west San Felipe Springs and the east San Felipe Springs is protected only to a minimum.

Cross said the springs are thus available to vandalism, sabotage and other sources of potential pollution to remedy this situation Cross said

higher fences could be installed; there could be more police protection or a guard on duty.

The second potential threat is solid waste mismanagement.

This is the result of dumping of washing machines, dryers, and junk car lots which seep oil into the soil.

Cross said he saw numerous places on the north end of the city such as garages, oil and transmission businesses. There is oil being dumped on the ground and "we're not talking about a few people," said Cross.

He said this covers a large area on both the west and east ends of Highway 90 where dumping of this nature is taking place. "People don't think about the car lots, but those cars are leaking oil and this is seeping into the ground and contaminating the water.

"In the subdivision east of Highway 90, I saw cases of people dumping washing machines and dryers north of their water wells. It won't surprise me to hear these people complain of contamination to their water wells and they are at fault," said Cross.

The third potential is from abandoned and improperly plugged wells. Cross said he observed two such wells during his three day

investigation. The significant of unplugged, abandoned wells is that they allow the surface runoff to penetrate the well and create direct avenues of pollution.

Cross observed people dumping trash and other potentially dangerous materials into one of these abandoned wells. "This is a very significant problem in the area," he advised.

It is very probable that other such wells exist providing the avenue for "bad" water to pollute the city's "good" water and thus deteriorate the usable quality ground water.

The fourth potential for contamination is improperly installed or designed septic tanks. Many businesses and newly developed residential areas in and around Del Rio produce sewage. Those that are not served by city water and sewer lines utilize septic tanks which are "generally completed in the Georgetown Limestone," Cross said.

Because this limestone has numerous caverns it is a "poor medium for filtering and absorbing contaminants from wastewater," Cross explained.

He added that if a residence or small business dumps chemicals, paint thinner or even bleach down the drain, biological organisms

necessary for proper operation of the septic system will die. Without the organisms, raw sewage and chemical wastes are discharged to drain fields and near surface soils, Cross said.

Cross recommended a protection area around the San Felipe Springs which would give the city five years to react to a contamination of the water source. After five years, that contaminate would enter the San Felipe Springs.

There are also some holding pens for livestock located above the springs. Cross said during rainy seasons there will be an increase in the total dissolved solids in the water.

A determination was made that there is a slow but steady increase in sulfate and nitrate levels in Del Rio's drinking source, which Cross believes is probably due to the upswing in population growth rather than contaminates.

Sulfate causes hard water and can give a bitter taste in large concentrations.

Nitrates are the result of decaying inorganic matter such as fertilizer. Nitrate levels are responsible for the blue baby syndrome, which can be fatal to infants, whose tolerants for nitrates is low.

Friday, December 19, 1986

# Five point plan presented to prevent pollution of Del Rio's water supply

By ANN THOMAS  
News-Herald Writer

The city has responded to reports of potential contamination to Del Rio's water supply.

Following a presentation from a representative of the Texas Water Commission, which detailed the potentials for polluting the San Felipe Springs, City Manager Jeffrey Pomeranz presented a five-point plan.

The plan contains provisions for growth management in the San Felipe Creek watershed and protecting the San Felipe Springs as the city's water source.

The plan incorporated the suggestions contained in the TWC report.

"Development activity in the San Felipe Creek watershed, if it does not conform to high landuse and construction standards, threatens the integrity of the San Felipe Springs," wrote Pomeranz in the plan.

The Lowe Estates stand as the next development frontier in the San Felipe Creek watershed.

In the early 1980's the city designated the general area of the Lowe Estates as a "special

interest area" by annexing it for the purposes of protecting the San Felipe Springs.

At about this time, the Lowe Estate was fractured into many parcels and distributed among a large number of heirs in a probated settlement.

"The city endorsed this settlement in the spirit of cooperation with the courts to allow the probated case to come to an end. It was understood that any further fracturing of properties or development in that area would have to submit to the city's subdivision ordinance," Pomeranz explained.

The Lowe Estates has still not been brought through the city's subdivision process, even though there is evidence of more intensive use of that land today than when it was probated.

The land is also owned by a greater number of people than the original number of heirs. The property lines and public right-of-ways are not all compatible with the land use design standards that the city would want to enforce through its subdivision code, which can make the laying of city water and sewer lines more expensive.

The general topography of the Lowe Estates lends itself to heavy surface water runoff into the San Felipe Creek and the San Felipe Springs recharge zones.

With these factors in mind, the city staff recommended a growth management plan.

"Without growth management controls guiding development in the San Felipe Creek watershed, the city stands to see the present pattern of landuse continue and thus make increasing difficult the city's chore of establishing proper development standards when this land is eventually brought into the subdivision process.

"A piecemeal development of that area may also deter the city from extracting the necessary landuse design and springs protection features from developers."

Pomeranz added it may be in the city's best interest to encourage the landowners in this special interest area to submit to the subdivision process while the city can still implement a proactive water protection plan.

City council unanimously gave the city staff permission to work towards the implementation

of these five steps:

- Survey all interested property owners to ascertain their long-term development plans in the watershed and to establish the areas for cooperation in the protection of the San Felipe Springs

- Prepare for council consideration an ordinance which prohibits the issuance of any building permit on land which has not been platted in accordance with the city's subdivision regulations

- Prepare a master plan which will serve as a development and subdivision guide in the special interest area

- Convene a general meeting of all the landowners in the special interest area to propose development guidelines in the watershed, and

- Study the advisability of cooperative planned unit development contracts which involved utility extension and landuse design commitments between the city and interested developers in the San Felipe Creek watershed.

Wednesday, January 14, 1987

# City Council approves subdivision rules

By ANN THOMAS  
News-Herald Writer

Del Rio's revised city subdivision regulations have been approved, following 2 1/2 years of motions for further revisions and motions to table.

During Tuesday's city council meeting, the revised regulations were passed by a vote of 5-2, Mayor Hugh Williams and Councilman Al Cervantes cast the dissenting votes.

The new regulation is a relief for some, particularly in light of the recent study conducted by the Texas Water Commission (TWC) which detailed potentials for polluting Del Rio's aquifer. TWC identified the improperly installed or designed septic tanks as one potential pollution source.

Previously, the city had no septic tank regulations.

The revised regulations relied heavily on the report from the TWC, which was instrumental in convincing the council to approve the ordinance, said Councilman Dan Burr.

One of the two major changes in the revised subdivision regulations is the incorporation of the state's stringent standards for septic tank design, installation and density, which will have "a positive fallout for aquifer protection," said Burr.

The subdivision regulations incorporate these septic tank regulations by reference to the private sewage facility regulation which are before the utility commission presently. The utility panel is expected to pass these regulations within the month.

The second major change to the subdivision regulations is an increase in the review procedural requirements for developers. This is important because the city staff will be making a decision as for the merit of a development project in the planning stages.

The utility commission also will play an active role in the developmental stages of a subdivision project. The development must meet utility commission standards.

The majority of the council was in support of the passage of the regulations, citing that guidelines were needed by developers and there had already been numerous delays. Most felt the regulations could be amended if new information indicated a need.

However, Williams and Cervantes thought it would be better to wait until more information was available on how to protect the aquifer. Williams reminded the council that the TWC report was compiled after only three days spent in Del Rio and was only a preliminary finding.

March 11, 1987

# City takes action to protect area's drinking water

By ANN THOMAS  
News-Herald Writer

For the next six months, no construction permits will be issued for septic tanks or water wells in the area around the San Felipe Springs.

It took the Del Rio Council over an hour to reach the decision that the city's drinking water would be in imminent danger of pollution if all construction utilizing septic tanks and water wells around the springs was not halted for the next six months. The council approved the ordinance by a vote of 5-2, with Councilmen Al Cervantes and Eulalio Calderon voting in opposition.

In the meantime, the city will be awaiting the results of a master plan study currently being conducted by Hogan-Rasor consulting firm, which will provide guidelines for construction in the environmentally sensitive area around the springs.

The thrust of the ordinance is to halt the drilling of water wells and septic tanks which could pollute the San Felipe Springs. Councilman Lee Weathersbee cited a 1964 study which revealed that there is a great deal of sulfur water in the areas around the springs. When a water well is drilled and sulfur water is found, there is a chance that this bad water will drain through the unique soil in Del Rio and pollute the springs.

This is a matter of concern for some on the City Council. Citing San Antonio as an example of a city which has had problems with its water supply, Cervantes said: "Time, and time again, various people have told us to protect our water supply. Some towns are becoming ghost towns because of problems with their water supply. We have been—I shouldn't say negligent—but I'm glad this is coming about. This is something that should have been here a long time ago."

Councilman Dan Burr said: "As a result of recommendations of the Texas Water Commission (regarding sources of pollution to the San Felipe Springs), the city staff proposed a five-point plan.

As part of that plan a land use consulting firm has been hired whose job it is to make recommendations for the use of environmentally sensitive land. This ordinance provides for temporary suspension of construction which uses wells and septic tanks, not the sale of any land. This is not intended to cripple free enterprise and sales."

Burr said without this moratorium, the job of the consulting firm would be impossible if not ridiculous.

Councilman Bob Wilson said of the moratorium, "... this is preventive medicine rather than a cure. Let's work on facts and not be late for tomorrow. I want the water supply taken care of."

Referring again to the 1964 study, Weathersbee asked, "Why have we been sitting on our butts for 23 years when there is sulfur water all over this community?" Weathersbee cited Cienegas Terrace and Val Verde Park Estates as areas of Del Rio which have had numerous problems with sulfur water in the wells and pollution of already existing water wells.

Weathersbee said, currently the city has no involvement with water well drilling and no follow-up to ensure bad wells are plugged properly. A study conducted by the Texas Water Commission cited improperly plugged sulfur water wells as possible sources of pollution to the city drinking water.

Councilman Garry Kyle requested that ordinances pertaining to septic tanks and water well drilling be established by the city so guidelines exist for developers.

Two exemptions to the moratorium on construction are included. If a development meets state and local regulations and the protection of the water supply is ensured then a waiver to the moratorium may be granted. The city can also establish a board of adjustment which can give special approval if this ordinance has created undo hardship and there is no threat of pollution.

March 26, 1987

# Council votes to postpone passage of private sewer facility regulations

By ANN THOMAS  
News-Herald Writer

The city will remain without private sewer regulations, at least for the next 90 days.

The Del Rio City Council by a vote of 4-2-1 voted to postpone the passage of private sewer facility regulations. Voting to postpone were Mayor Hugh Williams, Councilmen Al Cervantes, Eulalio Calderon and Garry Kyle.

Councilmen Lee Weathersbee and Dan Burr emphasized the importance of passing the regulations, since currently the city has none in place. They voted against postponing. Councilman Bob Wilson abstained.

The Texas Water Commission presented a report on possible sources of pollution to the city's drinking water, and referenced a lack of sewer facility regulations as a possible problem. The Del Rio Utility Commission has already passed the private sewer regulations, and the subdivision regulations recently passed by the City Council refer to the private sewer facility regulations in setting forth standards for developers.

Some members of the City Council preferred to wait until a study of the environmentally sensitive recharge zone around the San

Felipe Springs is complete before passing regulations on septic tanks. The land use study should provide guidelines for how close septic tanks can be or if they should be allowed in the recharge area at all. This study is expected to be completed in 90 days.

Other council members prefer to wait until the state has passed its revised septic tank regulations, which it is expected to do shortly.

For still other council members, a lack of city regulations on septic tanks places the public health at risk. They insist whatever new regulations are passed by the state will be incorporated in the city septic tank regulations by reference.

Kyle said a regulation passed at this time would only be a "band-aid," which would have to be revised again and again.

"Even though the intent is good, I don't think this is the right time," said Kyle. "Ninety days is going to make a difference in having a good, substantial ordinance."

Burr said a basic misunderstanding exists in the council; "This simply says if you build a septic tank, build it by these standards. This is not directed at the Lowe Estates (which is located in the recharge zone and a moratorium

on any septic tank construction has been placed on this area)."

Burr emphasized that the State Board of Health's new septic tank regulations will automatically be incorporated by reference in Del Rio's ordinance. Burr also said, "This is only construction standards, which take the place of what we have now, which is absolutely nothing. These regulations would allow us to get a handle on sewer construction in Del Rio."

The regulations would not mandate nor prohibit septic tanks, said Burr. "We can gain nothing by continued babble on the subject. People who decide to construct septic tanks can be just as big a menace to the public health as they want to be."

"Right now we have absolutely nothing, and that is the most dangerous position we can put the people of Del Rio in," said Weathersbee. "It may be a band-aid, but it is a step in the right direction."

Burr said that these regulations would be the only legal basis the city would have to control existing septic tanks which threaten the public health. "Currently, there is no legal basis other than the State of Texas Health Regulations."

City Manager Jeffrey Pomeranz said at this time "Detailed inspections by the city inspection department do not exist for septic tanks within the city limits."

"This council is dedicated to doing the right thing," said Kyle. "There will be septic tank regulations—it could be 90 days or 120, but it will be the right ones."

"We've waited quite awhile on this thing," said Cervantes. "I won't vote on this because it is pushing something we know very little about."

Burr maintains that these regulations read like the state approved septic tank regulations adopted by Val Verde County.

While the council elected to postpone the passage of septic tank regulations until the land use study of the San Felipe Springs recharge area is complete and the state has revised its regulations, the council did direct the city staff to prepare an ordinance regulating water well drilling.

Abandoned water wells and wells with sulfur water were another source of pollution to the springs mentioned in the TWC study.

April 15, 1987

# Water well drilling regulations passed

By ANN THOMAS  
News-Herald Writer

In its continuing efforts to protect the city's drinking water, City Council has passed water well drilling regulations.

The council unanimously passed an ordinance regulating water well drilling in the city limits and within 2 miles outside the city limits.

Monitoring wells with bad water and the drilling of wells was a suggestion by the Texas Water Commission (TWC) in its report on protecting the San Felipe Springs from pollution.

The ordinance was passed to promote the health, safety, morale and general welfare of the community, and the safe, orderly and healthful development of the city.

Now, the city will have the authority to require a well with bad water to be plugged within 10 days after the owner is notified. The TWC representative reported some wells were left abandoned and unplugged.

Due to the unique nature of Del Rio's soil, water from bad wells which are left unplugged can travel through the rock and soil and pollute the clean water in the springs.

This ordinance will not apply to wells less than 50 feet deep.

Those wanting to drill wells now must acquire permits from the city. Permit fees are as follows:

- a new well 100 to 150 feet deep—\$10
- a new well 150 to 400 feet deep—\$30
- a new well over 400 feet deep—\$30 and \$10 for each additional 100 feet
- to repair or correct a defective well—\$20
- to abandon or plug a well—\$5

This ordinance will be in effect as of April 24. City employees will be responsible for inspecting the water well. City Manager Jeffrey Pomeranz said employees will need to be trained on how to properly inspect the wells.

This training may not take place for 60 more days, said Pomeranz. In the meantime the city will do the best it can.

Councilman Dan Burr requested copies of this ordinance be sent to all the local water well drillers.

April 18, 1987

# Council awaiting results

By ANN THOMAS  
News-Herald Writer

While the city remains without private sewage regulations, some members of the Utility Commission are disgruntled with its chairman.

During a Feb. 5 Utility Commission meeting, the commissioners unanimously passed a resolution in support of private sewage regulations. The resolution was forwarded to the Del Rio City Council for passage in ordinance form.

Although it was the Utility Commission's recommendation to pass such regulations, City Council voted in opposition. The chairman of the Utilities Commission, Mayor Hugh Williams, who voted for the regulations in the commission meeting, was in opposition when it came before the City Council.

During this week's meeting of the Utilities Commission, Commissioner Dan Burr was requested to provide an update on the regulations. He told the commission; "The Utilities Commission had passed that regulation unanimously. The Chairman of the Utilities Commission took an active role in defeating the regulation, including voting against it, when the matter was placed before the City Council.

"I consider that vote reversal to constitute insubordination to the expressed will of this commission."

Burr then asked Williams to explain his actions. Williams declined to comment at the time.

During a telephone interview Friday, Williams said; "Between the time the matter came before the commission and went to the council, we had gone ahead and requested a study to be made, particularly of the area included in the aquifer. The majority of the council and I decided it would be better to wait to see the results of the study before we passed any regulations.

"We had gone ahead and placed a moratorium on any building in that area (Lowe Estates). We sought expert advice and we intended to follow that, which may or may not be what is included in the resolution passed by the Utilities Commission. It may be that septic tanks are not safe out there as far as protecting the springs from pollution," said Williams in explaining his change of position on private septic tank regulations.

# Council moves toward protection of city's water supply

By ANN THOMAS  
News-Herald Writer

The Del Rio City Council has approved a preliminary draft of land use study for the environmentally sensitive area around the San Felipe Springs.

A stringent set of 58 development guidelines are included in the study, which was prepared by the engineering firm of Hogan and Rasor, Inc. There is a concern for the development of this area because of its close proximity to the San Felipe Springs, the city's main source of drinking water.

Without the proper development guidelines, the San Felipe Springs could become polluted. The spokesman for the engineering firm urged the adoption of these regulations saying that "Once this area is lost, it can never be regained."

The two most controversial provisions of the study are those that regulate septic tank installation and methods to handle storm water drainage, said Joe Pobiner, a planner with Hogan and Rasor.

Some very stringent guidelines are proposed for the installation of septic tanks, including city inspection of the installation and a requirement that they be installed only by licensed personnel. If a home is within 1,000 feet of a city sewer line, the developer will be required to hook up to that city line.

It further away than 1,000 feet, septic tanks will be allowed but there can only be one tank per one to five acres, depending on how close that lot is to the springs.

Because of the regulation requiring residents to use city sewer and water lines if they are within 1,000 feet of such lines, within 30 to 40 years the 13,500 acres included in this land use study should all be connected to city lines, said Pobiner.

To handle storm water drainage, which could contain urban pollution, Pobiner recommended 21 detention ponds. These ponds would total 198 acres. By detaining the storm water drain-

age in the ponds, the water will eventually seep through the soil, where it will be naturally filtered, said Pobiner. Thus by the time the storm water reaches the springs, it will be clean.

Very limited development is recommended for the 13,500 acres surrounding the springs.

Commercial development will be limited to the area along Highway 90. Residential development will be limited within the protection zone, with a minimum amount of thoroughfares to discourage cut-through traffic.

The most dense residential development should be located behind the commercial zone. This will include apartments, townhomes and condominiums.

As developed areas near the floodplain, the amount of single family dwellings should decrease to one to four units per acre.

The area immediately adjacent to the floodplain should be reserved for estate residential development, which would contain only one to two

houses per acre.

No development is recommended for the floodplain area. This area could be used for a park left in its natural state, but no baseball fields or parking lots should be permitted, said Pobiner.

This protection area or buffer zone along the floodplain will extend 100 feet in every direction. This is the most sensitive area, which could pollute the springs. This land can be privately owned, but no permanent structures should be built on it, said Pobiner.

Hogan and Rasor is expected to return at the next regularly scheduled City Council meeting with a finalized version of the land use study and maps to show where streets, sewer and water lines, homes, commercial development and parks should be laid.

# Concerns aired over San Felipe Springs' development

By THERESA NICKOLIN  
News-Herald Writer

Concerns voiced by citizens and City Councilmen over the future development of the area around the San Felipe Springs led council members to the conclusion that a special workshop is needed which will be devoted to that issue alone.

A public hearing took place in the council chambers of city hall Thursday night at 7:30, which included a presentation by Joe Pobiner, who is a planner with Hogan and Rasor. They are the engineering firm hired to do a study on the environmentally sensitive area around San Felipe Springs.

A stringent set of 58 development guidelines are included in the study. There is great concern over development of this area because of its proximity to the San Felipe Springs, the city's main source of drinking water. Without the proper guidelines for developers to follow, the springs could become polluted.

Three provisions of the plan developed by Hogan and Rasor are particularly controversial: one which regulates septic tank installation; one which deals with methods for handling storm water drainage; and one which makes a minimum density recommendation for development.

Strict recommendations are advised for the installation of septic tanks, including city inspection of the installation, a requirement that they be installed only by licensed personnel, and "periodic unannounced inspections by city personnel to assure compliance and proper operation."

If a home is within 1,000 feet of a city sewer line, the developer will be required to hook up to that city line within 54 months, according to the plan.

If further away than 1,000 feet, septic tanks will be allowed but there can be only one tank per one to five acres, depending on how close

that lot is to the springs.

Pobiner explained that there are 13 different types of soil in the area being considered for development, and that septic tanks could only be present in certain areas, due to the properties contained by the different types of soil.

A series of 21 retention ponds is proposed to handle storm water drainage, which could contain urban pollution. These ponds would total an area of about 185.5 acres, which is less than nine acres per pond.

Ben Woodson, a Del Rio citizen who was present at the hearing, said that he didn't think those retention ponds would handle water drainage during a heavy storm.

Pobiner responded that during heavy storms, certain areas would always be flooded, and that those retention ponds were not there to try to contain that water. "The 21 retention ponds will only hold the extra runoff that exists due to driveways and houses that would be built when an area is developed."

Pobiner explained that what these ponds would do, however, is retain the water over a period of time, and that it would eventually seep back through the layers of soil and clay. This natural filtering process would clean the water, so that by the time it seeps back into the springs, no pollutants would be present.

A recommendation in the Hogan and Rasor plan calls for a "minimum density of one dwelling unit per two acres."

Councilman Lee Weathersbee said that he has "a problem with that whole concept. I'd like to see larger parcels of land sold—15 acres with one home." Weathersbee advocated the least amount of development possible.

"Would you agree that the lower the density, the better the chance we'd have in keeping it from being polluted?" Weathersbee asked Pobiner.

Pobiner replied: "I'd say that was a valid point."

Weathersbee said he thinks the City Council needs a special workshop to further study the plan, and councilmen agreed.

Dr. Marshall Wells, a Del Rioan who is trying to build his home in the Lowe Estates—an area affected by this study which has been placed under a moratorium since March—made a plea to the council.

"I've been on hold since March when the moratorium was placed. Interest rates have gone up by three percent; I've had to decrease the size of my house by 250 feet—when will I be able to get a building permit?"

Councilman Cervantes told the man that he could meet with City Manager Jeffrey Pomeranz and Pobiner and probably obtain a variance. Councilman Dan Burr asked the citizen if he would be willing to comply with existing county septic tank regulations.

The man responded: "Give me a set of codes and I'll meet them."

Councilman Bob Wilson pointed out to Cervantes that there were several other citizens present at the meeting that were in the same situation as far as waiting to build. It was decided that they all meet on an individual basis with the city manager and "work something out."

Councilmen did not set a date for the special workshop on the development study, but are planning on doing so.

October 11, 1987

*City Attorney:*

# Del Rio first city in state to adopt certain portion of well ordinance

By **THERESA NICKOLIN**  
**News-Herald Writer**

A previously established ordinance that deals with abandoned wells will be changed as a result of action taken by councilmen at the meeting Tuesday night.

The new statute, which will become effective Nov. 20, modifies wording to ordinance No. 87-19 (passed in April 1987), and re-defines an abandoned well as follows: "a well is considered to be abandoned if it has not been used for six months."

The ordinance passed in April allows for two years of continuous disuse before a well is considered abandoned. The changed wording will comply with the Vernon's Texas Civil Statutes as recently amended by the State Legislature.

The new statute also states that unplugged wells within the city's jurisdiction "which impose an immediate threat and menace to the health, morals, safety or general welfare of the public," be declared a public nuisance, and gives

the City Council or its agents the right to go on property where these wells are located to temporarily rectify the situation, and give notice to the owner.

City Attorney James Bayne said that to his knowledge, Del Rio is the first city in the State of Texas that has acted to adopt language in an abandoned well ordinance, that deals with wells posing a threat or nuisance to the public.

Wednesday, October 21, 1987

# Many abandoned wells pose threat to tots in Del Rio area

By JUDI COOPER  
News-Herald Writer

He was watching the capping of the Midland well in which toddler Jessica McClure had spent 58 1/2 hours, when a picture from 1967 flashed into his mind that "hit me like a ton of bricks," said Del Rioan Sid Humphreys.

Humphreys walked down the street from his North Orbit Street home and, in the open lot there, just feet from a school bus stop, saw the eight inch well opening that he had first discovered 20 years ago when he was considering building on that lot.

Fortunately, that well was also discovered last year during a city-wide search for a young child that disappeared from a Pauline Drive home. A spokesman for the City of Del Rio Water Department said that once the well was found it was filled to just a few feet from the top with dirt and rocks.

The water department employee, who had also been called to the open lot by Humphreys, noted that he was aware of another open well on unfenced property behind the Sul Ross, South West Texas Junior College Extension Center on Wildcat Drive.

After driving to the trash-littered area about 300 yards away from Del Rio High School's student parking lot the water department employee pointed out an open well that appeared to drop at least 20 to 30 feet before it was filled with water.

The well was partially covered by a large tire with brush growing around it.

This abandoned well was discovered some time ago by city workers who were searching for a site to drill a well, the water development employee said.

Jessica McClure's tragedy in Midland has awakened many cities, including Del Rio, to the danger of uncapped abandoned wells. "I think all communities are looking at this now," said City Manager Jeff Pomeranz who said that Councilman Lee Weathersbee has requested the matter be placed on the next city council agenda. Well drilling and uncapped abandoned wells have been discussed by the council in the past.

During a visit to Del Rio by a representative from the Texas Water Commissioner (TWC), at least two abandoned and improperly plugged wells were discovered and reported to the city council.

The council did pass an ordinance on April 14 outlining the procedure for taking care of abandoned wells in the Del Rio city limits.

October 28, 1987

# City seeks citizens' help in locating abandoned wells

By THERESA NICKOLIN  
News-Herald Writer

"The city needs citizens' help in discovering and reporting old abandoned wells," said Assistant City Manager Oscar Rodriguez this morning.

He explained that there are just too many wells "out there that we have no way of knowing about," and if people know about a well, they can call in (anonymously if they wish) the address of the property that the well is on. "This would be of tremendous help," said Rodriguez; not only to the city staff, but in contributing toward the safety of children and the protection of the water supply as well.

People should call the city at 774-2781 and ask for Andy Valdez if they have a well to report.

An ordinance regulating well-drilling and abandoned wells that was passed by the City Council in April was scrutinized by City Councilmen Tuesday night.

Councilman Lee Weathersbee requested the item be placed on the agenda for discussion at Tuesday night's City Council meeting, which took place in the council chambers of city hall.

The ordinance passed April 14 defines abandoned wells as: "a defective well which cannot be corrected to comply with the requirements of the city ordinance, or any well that has been continuously out of use for two years."

Abandoned wells, when reported, will be inspected by members of the city staff who will determine whether the well needs to be plugged.

The filling of these wells is the owner's responsibility, according to Assistant City Manager Oscar Rodriguez, and if the owner does not take care of the well, the city staff will call in a well-driller to plug the well, and bill the owner for the cost of filling it.

Councilmen are considering changing the wording of the existing ordinance, to shorten the length of time a well is out of use before it is considered abandoned. The time may be changed from two years to either six months, or zero to six months. This time constraint will be addressed at a future City Council meeting.

## *Our Views*

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# Protecting the Springs

Don't drink the water.

How many towns have you been in where people—sometimes, the town's residents themselves—advise you not to drink the water? We have been to several such towns, both in the U.S. and in Mexico, where we wish we had heeded that advice. Drinking water in those towns left a very bad aftertaste.

With all the hype these days about the battle for the top between the two leading soft drinks, and the "party animal" promoting a certain brand of beer, one wonders how many of us actually drink water. Do we know what it tastes like? Sometimes we get curious and we have a glass or two. It tastes good, especially here in Del Rio, where the water is clean and sparkling.

The fact that the water is so delicious is a tribute to our city fathers. They realize the importance of protecting the area around the San Felipe Springs—the main source of our city's drinking water. The interest is ongoing: tonight, the Del Rio City Council will meet to consider adopting a protection plan for the Springs.

The meeting tonight is a joint meeting of the council and the Planning and Zoning Commission. The session will begin at 7:30 p.m. in the council chambers of city hall.

Some background on tonight's meeting: The council has been working toward resolution of a protection plan for the springs for over a year.

Potential sources of pollution to the Springs was presented in an outline to the council in December of 1986, by a Texas Water Commission representative. Since that time, there has been much debate as to what kind and how much development should be allowed in the area.

The City of Del Rio hired the engineering firm of Hogan and Rasor to prepare a study and make recommendations on developing the Springs area early this year. The council has been studying the plan and is considering its implementation. A building moratorium has been in effect for this area since March.

If the council approves the comprehensive plan guiding all development and land use regulations in the area surrounding the springs, the moratorium may be lifted. Amendments to the zoning ordinance required by this master plan also will have to be approved.

It will be interesting to see how the council votes on this very important matter; we encourage citizens to attend tonight's meeting.

# City to regulate future development of San Felipe Springs

By ANN THOMAS  
News-Herald Writer

The city has taken concrete steps towards regulating the development in the environmentally sensitive area surrounding the city's main source of drinking water—the San Felipe Springs.

However some have argued that these steps will make development in that area too costly.

"The city hasn't restricted development by forbidding you to develop. They're making it so expensive that you can't develop," said Joe Allen, a land owner in the Lowe Estates.

During Tuesday's regularly scheduled City Council meeting, council members approved a protection study and master plan for development regulations of the San Felipe Springs which had been prepared by the engineering firm of Hogan and Rasor. The council approved the plan by a vote of 6-0-1, with Councilman Al Cervantes abstaining.

Flowing from the adoption of this master plan were necessary changes to the city's zoning ordinance, which created residential districts called "estates," which consist of five acres or more; and low density districts consisting of one dwelling per two acres; and medium density consisting of two dwellings per one acre.

Because of the unique soil in the area surrounding the San Felipe Springs, it is necessary to limit development. A study conducted by the Texas Water Commission in December of 1986 showed that heavy development could result in pollution to the springs, from such things as

septic tanks, run-off, high volumes of traffic, etc.

Additionally the City Council passed all stringent ordinance regulating the installation and maintenance of septic tanks. Again this was necessary to protect the Springs from possible seepage from the tanks.

Both the amendments to the zoning ordinance and the adoption of the septic tank regulations passed unanimously.

However amendments to the subdivision regulations were tabled, allowing the Planning and Zoning Commission more time to deliberate on the changes before making its recommendation to the Council. A special meeting has been called for Dec. 2 at 7 p.m. to vote on these amendments.

Because the subdivision amendments were not approved during Tuesday's meeting, a building moratorium for the 14 square miles comprising the protection zone could not be lifted. It has been in effect since March.

Not everyone in attendance at the meeting was supportive of these changes.

"I'm a big advocate of aquifer protection, but it has gotten to the point where it's ridiculous—a waste of time," said Dr. Marshall Wallace. Wallace and his wife have been trying to build a one-bedroom retirement home in the Lowe Estates for the past year.

One requirement of the septic tank regulation is that the septic tank be large enough to accommodate a four-bedroom house.

This increases the drainage field for a one to

two-bedroom house from 380 feet to 780 feet.

"I'm being penalized," said Wallace. "I'm going to end up with a drainage field that looks like a football field."

Councilman Dan Burr responded that this requirement was already in effect in the county, and was necessary to safeguard for the future. "Houses have a habit of changing hands. Your house may be sold to someone who has six children or adds bedrooms. At the same time septic tanks seem to lose efficiency. Currently there is a problem in both the city and the county with undersized septic tanks. Let's start oversized and push back into the future when that system will become obsolete and undersized."

The new septic tank regulations also stipulate that if your home is within 1,000 feet of a city sewer main you must hook-up to the city line. This applies to all those living inside the city limits and its extra territorial jurisdiction, just as the new zoning ordinance amendments do. The current subdivision regulations demand that a person hook up to city mains if his home is within 300 feet.

Some council members questioned the expenses this would place on both developers and land owners.

"You go out there and build your house, and a subdivision pops up," said Councilman Lee Weathersbee. "Are you going to be required to hook up to city mains?"

City Attorney James Bayne said that the ordinance contains a grandfather clause, which

stipulates if a septic tank is in place when this new ordinance goes into effect 10 days from now, that person is exempt under the grandfather clause, until the septic tank goes bad. When the tank becomes overloaded, then that person will be required to hook onto city lines if those lines are within 1,000 feet.

For those who install septic tanks after the ordinance goes into effect, once city mains come within 1,000 feet that person has 54 months to hook on.

Jim Hester, who works with the Del Rio Community Development Foundation, which has been selling tracks of land from the 700 acres it controls from the Moody Foundation, said that this 1,000-foot regulation will make development extremely costly. "The cost of water and sewer lines would equal or exceed the cost of the land," said Hester.

Hester said the frontage on the lots the foundation is selling are between 600 and 800 feet, so as soon as one person comes within 1,000 feet of city mains and he is forced to hook up, so will everyone on down the line. Hester said this could be cost prohibitive for many, since the lots are so large.

Councilman Dan Burr responded that the ordinance contains some built in appeals process, which come directly before the City Council. If enough of a hardship can be established, then a waiver may be issued, said Burr. Burr also added that this is not a new proposal. It was contained in the subdivision regulations passed in January, which had been in the works for over a year.

## *Our Views*

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# Proper planning essential for future

Planning for the future development of this city is an issue of great importance.

Forethought can prevent such hazardous results as subdivisions with no water supply, no paved roads and no sewage facilities.

Proper planning can also result in well designed neighborhoods, with well planned streets and lots—something the whole community can take pride in.

The area surrounding the San Felipe Springs is not only beautiful, but it is also of extreme importance to the future growth of this city. It is mandatory that the city take steps to protect the future water supply of this area. Without a large supply of clean water future growth would be stunted.

The City of Del Rio and the City Council are to be commended for taking steps to ensure the proper development of this area. Future planning is something that has often been lacking in the past, resulting in roads that haphazardly end and begin again a block later, homes where the water has to be carried in, and neighborhoods without organization.

Although the steps taken by the City Council Tuesday night are bound to receive criticism for some developers and land owners due to added expenses, it also must be remembered that there is a tremendous amount at stake.

Without proper protection of the San Felipe Springs from sources of potential pollution, the city would truly have failed in its duty to future generations.

Proper planning will also result in an area of town in which all can be proud. A well organized neighborhood will yield higher property values for those who live there.

Proper planning will also result in less through traffic in the neighborhoods, making it a safer place for children.

Such planning also designates areas which should not be developed, but rather used for such assets as city parks.

The forethought and planning that the City Council has given to the area surrounding the San Felipe Springs is something that in the future will hopefully be extended to other areas of Del Rio.

December 1, 1987

# Council and planning board to eye changes in subdivision regulations

By THERESA NICKOLIN  
News-Herald Writer

A joint meeting between the Del Rio City Council and Planning and Zoning Commission is set for Wednesday at 7 p.m. They will meet in the council chambers of city hall.

The joint meeting between the two bodies was scheduled so they could make a decision on whether to amend the subdivision regulations ordinance as recommended by the engineering firm of Hogan and Rasor.

This firm was engaged to prepare and recommend certain revisions to the existing subdivision regulations "in order to protect the City of Del Rio's water supply, protect the City from flooding and to insure the orderly development of the City."

Among the revisions advised in the proposed ordinance appears a section amending required water supply and sewage collection systems. This section, according to Utilities Commissioner Dan Burr, forces the developer or subdivider to bear the cost of extending public water systems and sewer supplies within 1,000 feet of the subdivision.

"If you make a subdivision within city limits, you, as the subdivider, must bear the cost of

extending those public water mains into your subdivision," explains Burr.

The proposed decree re-defines several words in the existing ordinance. One such word is subdivision. The changed ordinance defines subdivision as "the division of any tract of land in two or more parts for the purpose of laying out any subdivision of any such tract of land or any addition to the City.

The re-defined version "extends the city's authority to regulate what goes on in the subdividing process," says Burr. Other definitions are also re-worded in the ordinance to be voted on Wednesday.

Under other business, the Gates Apartment/Utility grant is listed as a discussion item requested by Councilman Lee Weathersbee.

Thursday, December 3, 1987

# City Council adopts strict new subdivision ordinance

By THERESA NICKOLIN  
News-Herald Writer

City Councilmen passed strict revisions to the subdivision regulations Wednesday night in a move to protect the area's water supply and to ensure the orderly development of the city.

Councilmen voted unanimously to adopt Ordinance No. 87-46, which amends the subdivision regulations of the Del Rio Code of Ordinances. The new decree becomes effective Dec. 13 and is available for study at the office of the city engineer in city hall.

This decree sets forth numerous additions and amendments to the existing code, extending the city's authority in the subdividing process and requiring the submission of preliminary plats before construction can take place.

The reason for its strictness, says City Councilman Dan Burr, is because particularly in the environmentally sensitive area of the Lowe Estates near the San Felipe Springs, the additional protection is warranted. Subdivisions and dwellings built in this area are so close to the city's main source of drinking water that any mistake could affect or contaminate this water.

"We don't want the slums of tomorrow built in that area today," says Burr. "We placed a building moratorium (in March) on that area with the express intent of heightened constraints in that area."

Do these restrictions go too far? That was the question of one citizen who has been waiting since the beginning of the year to build his "dream home of 1900 square feet on 16 acres of land."

Dr. Marshall Wallace, who has sat in on several of the city's meetings over the last several months, was again present at the Wednesday night Special City Council meeting.

He expressed surprise over the fact that he'd been told by the Board of Adjustments last week that he must now meet the same requirements as those imposed on a developer who plans to divide and sell parcels of land to many different prospective owners.

This includes submission of preliminary plats that show where the builder plans to build roads, where utility easements will be placed, where the drainage problems are and how these problems are going to be dealt with, among other things.

Rodriguez, when contacted this morning, explained the board's position on Wallace's case. "Wallace was granted a variance to the moratorium on Nov. 25 by the Board of Adjustment. This action by the board gave Wallace the right to apply for a building permit," said Rodriguez. "As a condition for this right, the board accepted Mr. Wallace's promise that he would comply with the city staff's proposed septic system regulations, zoning regulations and subdivision regulations."

Councilman Burr explained that Wallace was caught in a transition period between the old regulations and the new, so he has had to wait while city officials iron out the details, some of which they may not even be sure of yet. He said that Wallace's is an unfortunate case, but that the good of the community is at stake.

If Wallace wants a variance to the city code, he must go before the City Council to get it.

This community is not alone in facing these transition problems. "The new residential and subdivision controls are nothing less than enormous," says Burr, adding, "They're so difficult that the Environmental Protection Agency and the Texas Water Commission (TWC) have been scratching their heads for months trying to figure out how to impose these on municipalities. And they're delighted that the City of Del Rio has done it here locally without them coming in here and telling us how to do it."

They must be, in fact, delighted. Brad Cross from the TWC informed Burr Wednesday that they will be using the City of Del Rio as an example for other cities in the state to follow. They will describe Del Rio in detail, along with the problems it faces concerning the water supply and the solutions the city has come up with to remedy the situations.

# Council and Zoning Commission consider variance request tonight

By THERESA NICKOLIN  
News-Herald Writer

The Del Rio City Council and the Planning and Zoning Commission will meet jointly tonight to consider several zoning requests as well as a petition for a variance to the recently subdivision ordinance. The two bodies will meet this evening in the council chambers of city hall.

Mr. Marshall Wallace, who bought land in the Lowe Estates has been waiting since the first part of the year to build his dream house, has requested the council to okay a variance on district subdivision regulations that were passed in Wednesday's special meeting of the City Council.

The new guidelines set forth numerous additions and amendments to the existing code, extending the city's authority in the subdividing process and requiring the submission of preliminary plats before construction can take place.

These preliminary plats set out where the builder or developer plans to build roads, where the drainage problems are and how these will be met, where the utility easements will be placed and a host of other stipulations.

Wallace was caught in a transition period while the city hired an engineering firm to study the Lowe Estates, which borders the San Felipe Springs—the city's main source of drinking water—and make recommendations to protect this natural asset. While this study was taking place, the city issued a building moratorium in the area.

Wallace was issued a variance to the moratorium on Nov. 25, according to Assistant City Manager Oscar Rodriguez, giving him the right to apply for a building permit. Rodriguez explained that as a condition for this right, Wallace promised that he would comply with the city staff's proposed septic system regulations,

zoning regulations and subdivision regulations.

Wallace asked that his request for a variance to the regulations be considered at tonight's City Council meeting, which is the path he must follow in the appeal process.

A petition to rezone 201 E. Bowie St., lots 1 and 2, block 79 of the Blum Addition was requested by Antonio Castellanos. He wants to change the zoning from C-1 (Commercial First Height) to C-2-A (Commercial First Height) and Residential Single Family lots 3, 11, 12 and 13; block 79 to C-2-A.

Guadalupe S. Torres III filed a request for a zoning change at 813 W. Third, Lot 10, block G; 1st Airport Addition. Torres wants the property re-zoned from R-S (Residential Single Family) to C-1 (Local Commercial).

Also appearing on the agenda are ordinances to approve rezoning of 201 E. Bowie St., 815 W. Third St., and the Braddie G. Lowe Estate, as

well as an ordinance to amend the building moratorium ordinance for the Braddie G. Lowe Estate. Lifting of this moratorium will allow construction on the Lowe Estates, which has been placed on hold since March.

Recognition of October's Employee of the Month Ramon Santellanes, and Armando Ortiz, the Employee of the Month for November, is also to take place at the meeting.

Alfonso De La Rosa, who has served the City of Del Rio for many years, will receive a resolution of appreciation.

Other topics on the agenda include:

- A resolution to approve a contract between the City of Del Rio and Joan S. Lee, Youth Counseling Center
- A resolution to approve the tax roll
- A resolution to approve an insurance agreement
- Discussion of the employee Christmas party

# City Council sticks to guns on regulations

By THERESA NICKOLIN  
News-Herald Writer

Del Rio City Councilmen stuck to their guns when faced with their first request for a variance to the recently approved subdivision regulations.

Dr. Marshall Wallace, a landowner in the Lowe Estates who wishes to build a home on his property, appealed for a variance to the regulation at Tuesday night's council meeting. He said that compliance with certain demands levied by the ordinance would cause him "extreme hardship."

"I can meet the septic tank requirement and the water well requirement, but I need relief in the subdivision regulation," said Wallace. The subdivision regulation passed Dec. 2 requires submission of preliminary plats that show where the builder plans to construct roads, where utility easements will be placed and where the drainage problems are and how these will be handled, as well as a host of other stipulations.

In addition, an ordinance passed at Tuesday's meeting, previous to Wallace's request, rescinds the building moratorium that was put into place March 10 for the Lowe Estates, and sets forth platting requirements. The ordinance states that no building permit will be issued for any land within the City of Del Rio, unless a plat is first submitted and approved by the city and recorded with the county clerk's office.

Wallace stated that since he is one individual, building only a single dwelling on his tract of land and has no plans to sell or subdivide any part of his land in the immediate future, he should not be required to meet with the same stringent guidelines as those that a developer with plans to subdivide and sell to many people would have to meet.

Councilman Lee Weathersbee asked Wal-

lace what, specifically, his extreme hardship is.

"If I have to go through all the preliminary plats, it is going to take an engineer. To me, all I'm going to be doing is duplicating the study that was just done.

"In other words," he continued, "what environmental impact is my 1900 square foot house going to have on the runoff on the drainage supply of Del Rio, Texas? The same water that is going to fall on my 15 acres is going to fall whether my house is there or not," Wallace explained.

Councilmen agreed that although Wallace's house by itself would probably not make much difference, if they approved his variance, a precedence would be established, making difficult to refuse similar requests in the future.

Explained Mayor Hugh Williams, "Doc, I don't see where you're any different than other people following you. If we set a precedent now, we'll have to do it for next one and the next one . . . and then we've lost the whole ball game."

Councilman Weathersbee added, "I can't remember exactly when it was—I think about a year ago, we authorized the staff to take whatever steps were necessary to protect that land. We're being challenged tonight. Are we going to protect the integrity of our actions over the past year?" asked Weathersbee.

He continued: "It'll be hard for me, doc, but I'm going to have to vote against you."

Wallace told the councilman that he appreciated his honesty, but that the requirements for building a home in the area were so stringent that "I'm out of the housing market now. What I've got is an expensive picnic area."

Weathersbee said that he hoped that would not be the case and that the council felt it was necessary to take these tough steps now to

ensure that the right decision is made.

Wallace said he hopes he lives long enough to meet with all the subdivision regulation demands.

The City Council voted against Wallace's variance request 6-1, with Councilman Eulalio Calderon voting for.

Ralph Brown, an attorney hired for consultation by the city, was called upon to comment. He explained that the real problem with Wallace's case is that the people who sold him his property didn't go through the normal platting process required when subdividing land. "The ordinance you have now is simply to give the city some kind of minimum of notice."

December 9, 1987

# City Council re-zones area around springs

By THERESA NICKOLIN  
News-Herald Writer

Approximately 2,000 acres near the San Felipe Springs, part of which is considered the Lowe Estates, were re-zoned from "agriculture open district" to "estate residential single family district" at Tuesday's City Council meeting.

Councilman voted unanimously to pass a rezoning ordinance at the regularly scheduled council meeting which took place in the council chambers of city hall.

This is the final regulatory step that the city had planned to take in implementing the protection plan recommended by Hogan and Rasor for the San Felipe Springs. It allows only "agricultural uses, with the exception of livestock/ranching operations, and any incident single-family dwellings on or adjacent to these uses.

This zoning change does not affect current operations of those heirs of land in the Lowe Estates who have retained original ownership, until such time as they sell the land, or change the use of the land, said councilmen at the meeting.

An attorney representing Harriet Dodson Witherspoon opposed the zoning change. He said that it is unnecessary, unreasonable, and will increase the taxes on the land.

"The value of her land is diminished but the tax will go up," said Bill Stroman, Witherspoon's attorney.

The council members informed him that Witherspoon would not be subject to the rezoning until such time as she sold, subdivided, or changed the current use of the land.

In other action Tuesday night, the council recognized October Employee of the Month, Ramon Santellanes and November Employee of the Month, Armando Ortiz, for their outstanding and dedicated service to the City of Del Rio.

Alfonso De La Rosa, who worked with the city for 22 years and retired this year, was asked to come before the council, where he received a plaque of appreciation. City Manager Jeffrey Pomeranz stated that De La Rosa was a highly respected employee that served as everyone's friend within the city during all his years of employment. He also said that De La Rosa was given well deserved increased positions of responsibility during his tenure and his presence would be missed.

Mayor Hugh Williams presented him with a plaque, and the City Council gave him a standing ovation.

December 17, 1987

# Del Rio lauded on water protection measures by Beinke, TWC director

Water: "the liquid that descends from the clouds as rain, forms streams, lakes and seas and is a major constituent of all living things . . ." Webster

Executive Director of the Texas Water Commission Allen Beinke forwarded a letter about water to Del Rio City Manager Jeffrey Pomeranz recently. In his letter, Beinke references the recent ordinances put into place by the City Council and staff, which effect stringent changes to subdividing, building, and installing septic tanks and wells.

Beinke states: *"I want to take this opportunity to commend the City of Del Rio on the steps they have recently taken to further protect the San Felipe Springs.*

*These ordinances ought to greatly enhance your ability to protect Del Rio's water supply. Your efforts exemplify the high professional and unselfish dedication that all Texas cities should have as their standard.*

*My gratitude and compliments are extended to the City of Del Rio for a job well done."*

Del Rio citizens should indeed laud the tough, aggressive and far-reaching steps taken by the city staff and City Council, and their willingness to stand by what they believe is best for the city and the San Felipe Springs—the fourth-largest springs in Texas.

Although these measures may seem harsh now, and expensive to those who are required to follow them when obtaining a permit for building, drilling a well, or installing a septic system, they are necessary steps.

They will help to ensure the purity, cleanliness and quality of Del Rio's drinking water: the San Felipe Springs—one of its most precious assets, and one that cannot be "unpolluted" once that transgression has been made.

**APPENDIX B**

**SUGGESTED INVENTORY FORM**

**APPENDIX B**

**Suggested Inventory Form**

A. Landowners Name \_\_\_\_\_

B. Address \_\_\_\_\_

C. Phone: ( ) \_\_\_\_\_

D. City: \_\_\_\_\_ Zip Code \_\_\_\_\_

E. County: \_\_\_\_\_

See Attached Map No. \_\_\_\_\_

Description of Location: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**Nature of Property**

Residential \_\_\_\_\_ Commercial \_\_\_\_\_ Agricultural \_\_\_\_\_ Industrial \_\_\_\_\_

**Potential Sources of Contamination**

1. Abandoned Water Well: Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, how many?

2. Producing Water Well: Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, how many?

3. Cistern: Yes \_\_\_\_\_ No \_\_\_\_\_

4. Septic Tank: Yes \_\_\_\_\_ No \_\_\_\_\_

5. Cesspool: Yes \_\_\_\_\_ No \_\_\_\_\_

6. Underground Storage Tank: Yes \_\_\_\_\_ No \_\_\_\_\_

Currently in use? \_\_\_\_\_

How many?

7. Above Ground Storage Tank: Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, how many? \_\_\_\_\_

Other related potential sources or Class V Wells: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

(Use additional sheets if necessary)