

Victoria County Groundwater Conservation District



Directors:

Mark Meek
President

Jerry Hroch
Vice-President

Barbara Dietzel
Secretary

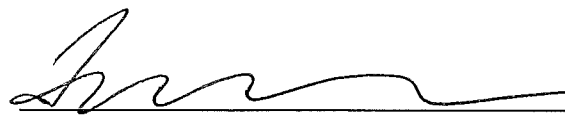
Thurman Clements
Kenneth Eller

AMENDMENT TO NOTICE OF SPECIAL CALLED MEETING CHANGING MEETING LOCATION

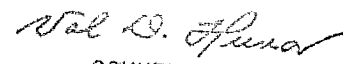
VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT
BOARD OF DIRECTORS
NOTICE IS GIVEN IN ACCORDANCE WITH CHAPTER 551-Government Code (V.T.C.A.) Texas Open Meetings Act that the Victoria County Groundwater Conservation District Board of Directors will hold a meeting on
**Friday, March 6, 2009 at 9:00 a.m. at the
Dr. Pattie Dodson Health Center, Suite 210
2805 N. Navarro St, Victoria, Texas.**

AGENDA

1. Call to Order and Pledge of Allegiance
2. Welcome Guests.
3. Public Comment
Consider and/or take action on:
4. Legislative Representation by Attorney Jim Allison
5. Task Order Authorization for Scientific Evaluation of Property Line Spacing Requirements for New Wells
6. Closed meeting (If Necessary) pursuant to V.T.C.A. Government Code 551.071 to conduct private consultation with VCGCD attorney regarding matters protected by the Attorney-Client privilege or V.T.C.A. Government Code regarding personnel.
7. Return to Open Meeting (If Necessary) pursuant to V.T.C.A. Government Code 551.102 return to open meeting and take any action deemed necessary based upon discussion in closed meeting.
8. Discussion and Action Related to Closed Meeting (If Necessary)
9. Adjourn.


Tim Andruss, General Manager

FILED
by Ronnie Dusan Deputy
2009 MAR -3 AM 10:32


COUNTY CLERK
VICTORIA COUNTY, TEXAS

72 Hour Notice 3-03-09

(In Accordance with Title III of the Americans with Disabilities Act, we invite all attendees to advise us of any special accommodations due to disability. Please submit your request as far as possible in advance of programs you wish to attend.)

Victoria County Groundwater Conservation District



Directors:

Mark Meek
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NOTICE OF SPECIAL CALLED MEETING

VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT BOARD OF DIRECTORS

NOTICE IS GIVEN IN ACCORDANCE WITH CHAPTER 551-Government Code (V.T.C.A.) Texas Open Meetings Act that the Victoria County Groundwater Conservation District Board of Directors will hold a meeting on

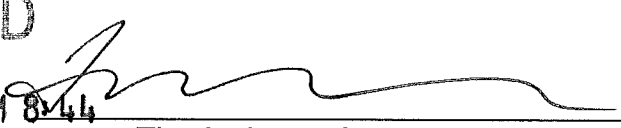
**Friday, March 6, 2009 at 9:00 a.m. at the
Dr. Pattie Dodson Health Center, Classroom A #108
2805 N. Navarro St, Victoria, Texas.**

AGENDA

1. Call to Order and Pledge of Allegiance
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3. Public Comment
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9. Adjourn.

FILED

2009 MAR -3 AM 8:44


Tim Andruss, General Manager

3/3/09


COUNTY CLERK
VICTORIA COUNTY, TEXAS

By:  Shanna Stasny, Deputy

72 Hour Notice 3-03-09

(In Accordance with Title III of the Americans with Disabilities Act, we invite all attendees to advise us of any special accommodations due to disability. Please submit your request as far as possible in advance of programs you wish to attend.)

Meeting Management - Pre-Meeting Detail View

Meeting Item Details	
Item ID:	1
Item Title:	Call to Order
Management Discussion:	
Management Recommendation:	
Financial Details:	
Related Documents:	

Meeting Management - Pre-Meeting Detail View

Meeting Item Details	
Item ID:	2
Item Title:	Welcome Guests
Management Discussion:	
Management Recommendation:	
Financial Details:	
Related Documents:	

Meeting Management - Pre-Meeting Detail View

Meeting Item Details	
Item ID:	3
Item Title:	Public Comment
Management Discussion:	
Management Recommendation:	
Financial Details:	
Related Documents:	

Meeting Management - Pre-Meeting Detail View

Meeting Item Details			
Item ID:	4		
Item Title:	Legislative Representation by Attorney Jim Allison		
Management Discussion:	In order to reasonably ensure that the interests and concerns of the Victoria County Groundwater Conservation District are adequately represented at the Texas State Legislature, I have asked the District's legal counsel, Jim Allison of Allison, Bass and Associates to provide a professional services contract that specifies a scope of services which includes legislative representation.		
Management Recommendation:	Move to authorize the execution of the contract between Allison, Bass and Associates and Victoria County Groundwater Conservation District.		
Financial Details:			
Related Documents:	<table border="1" style="width: 100%;"> <tr> <td style="text-align: right;"><i>Document Title:</i></td> <td>Professional Services Contract - Allison, Bas...</td> </tr> </table>	<i>Document Title:</i>	Professional Services Contract - Allison, Bas...
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ALLISON, BASS & ASSOCIATES, L.L.P.

Attorneys at Law

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402 WEST 12TH STREET
AUSTIN, TEXAS 78701
law@allison-bass.com
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ROBERT T. BASS
r.bass@allison-bass.com

March 3, 2009

VIA REGULAR MAIL

AND EMAIL: tim.andruss@vcgcd.org

Tim Andruss, General Manager
Victoria County Groundwater Conservation District
2805 N. Navarro St., Suite 210
Victoria, Texas 77901

RE: Contract for Professional Services

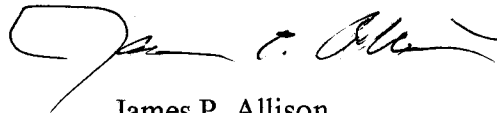
Dear Mr. Andruss:

Pursuant to your request, enclosed please find a Contract for Professional Services between the Victoria County Groundwater Conservation District and Allison, Bass & Associates for consultation and representation with the duties, responsibilities, and activities of the District, including any legislative proposals affecting the District. This agreement will authorize our representation of the District at legislative hearings if members of the Board or the General Manager are not available.

If this Agreement is approved by the Board of Directors, please return an executed original for our file.

Please call if you need any further assistance or have questions.

Sincerely,



James P. Allison

JPA/afb

RETAINER AGREEMENT

AGREEMENT made and entered into this _____ day of _____, 2008, by and between the Victoria County Groundwater Conservation District, hereinafter referred to as "Client", and Allison, Bass & Associates, L.L.P. hereinafter referred to as "Attorneys".

Recitals

The Client is a political subdivision of the State of Texas. The Attorneys are duly licensed to practice law in the State of Texas and desire to render their professional services for the Client as provided herein.

THEREFORE, the Client hereby engages the services of the Attorneys, and in consideration of the mutual promises herein contained, the parties agree as follows:

Services of Attorney

1. The Attorneys will advise and represent the Client in legal matters as requested by the Client, by and through a majority vote of the Board of Directors, pertaining to the duties, responsibilities, and activities of the District, including any legislative proposals affecting the district.
2. This Retainer Agreement shall serve as the basis for understanding regarding fees and costs to be charged to the Client, but the subject matter for legal services may only be authorized by action of the Board of Directors.
3. Fees will include any and all necessary research, drafting and reviewing of documents, briefing, and consultation required for the proper disposition of any and all matters entrusted to the Attorneys pursuant to this retainer agreement.

Compensation

4. For the services described in Paragraph 1, the Client agrees to pay the Attorneys the sum of \$240.00 per hour for services rendered by partners of the firm and \$210.00 for services rendered by associates of the firm. The client will be billed at the rate of \$100.00 per hour for

services rendered by any paralegal of the firm. A travel time fee of \$50.00 per hour will be charged for all time actually in transit, in lieu of any hourly charge normally attributed to the timekeeper. The Client will also be billed for all direct out-of-pocket expenses including travel expenses, telephone, photocopy, facsimile costs, reports, studies, and exhibits incurred by Attorneys in this matter. Attorneys will provide Client with an itemized billing each month stating services rendered.

Devotion of Time

5. The Attorney shall make themselves available for consultation with the Client at reasonable times, at the request of the Client.

Term

6. This agreement shall be effective on the execution hereof by Client and shall continue in effect until the matter has been finally concluded or upon 30 days written notice by either party. The Client shall send notice to the Attorneys' office at 402 West 12th Street, Austin, Texas 78701, and the Attorneys shall send notice to the Client care of Tim Andruss, General Manager, Victoria County Groundwater Conservation District, 2805 N. Navarro St., Suite 210, Victoria, Texas 77901.

Prior Agreements Superseded

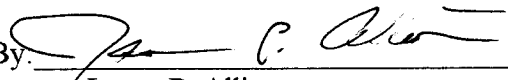
7. This agreement constitutes the sole and only agreement of the parties hereto and supersedes any prior understandings or written or oral agreements between the parties respecting the within subject matter.

EXECUTED on the _____ day of _____, 2009.

CLIENT
VICTORIA COUNTY GROUNDWATER
CONSERVATION DISTRICT

ATTORNEYS
ALLISON, BASS & ASSOCIATES, L.L.P.

Tim Andruss, General Manager

By: 

James P. Allison

Meeting Management - Pre-Meeting Detail View

Meeting Item Details																						
Item ID:	5																					
Item Title:	Task Order Authorization for Scientific Evaluation of Property Line Spacing Requirements for New Wells																					
Management Discussion:	<p>Based on the Board's instructions regarding the review of rules related to well spacing from property lines, Dr. Uddameri has prepared a research proposal to aid the Board in considering potential changes to related rules. I have drafted a task order related to this proposal.</p> <p>The proposal would follow a logically similar approach to evaluating Director preferences as the approach used in the establishment of the estimate of available groundwater.</p> <p>Note: Current Balance of 405-Research and Consultation includes expenses authorized on February 20, 2009.</p>																					
Management Recommendation:	Move to authorize the General Manager, Tim Andruss, to initiate VCGCD DU Task Order 3.																					
Financial Details:	<table border="1" style="width: 100%;"> <tr> <td colspan="2">Total Account Impact:</td> <td style="text-align: right;">\$6,500.00</td> </tr> <tr> <td style="text-align: center;"><i>Account Name:</i></td> <td colspan="2">405 - Research and Consultation</td> </tr> <tr> <td style="text-align: center;"><i>Original Budget:</i></td> <td colspan="2">\$75,000.00</td> </tr> <tr> <td style="text-align: center;"><i>Current Balance:</i></td> <td colspan="2">\$61,235.00</td> </tr> <tr> <td style="text-align: center;">Account Impact:</td> <td colspan="2">\$6,500</td> </tr> <tr> <td style="text-align: center;"><i>Remaining Balance:</i></td> <td colspan="2">\$54,735.00</td> </tr> <tr> <td style="text-align: center;"><i>Percent Remaining:</i></td> <td colspan="2">91.3</td> </tr> </table>	Total Account Impact:		\$6,500.00	<i>Account Name:</i>	405 - Research and Consultation		<i>Original Budget:</i>	\$75,000.00		<i>Current Balance:</i>	\$61,235.00		Account Impact:	\$6,500		<i>Remaining Balance:</i>	\$54,735.00		<i>Percent Remaining:</i>	91.3	
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VICTORIA COUNTY GROUNDWATER CONSERVATION DISTRICT TASK ORDER

TASK ORDER NO.	DU-3	DATE:	3/6/09
CONTRACTOR:	Dr. V. Uddameri		
TASK DESCRIPTION:	Provide support to District regarding District Rules on well spacing		

SCOPE
<ul style="list-style-type: none"> See Attached Proposal Payment(s) based on acceptance of deliverables by the District

BUDGET ESTIMATE		
Labor/Employee	Hours	Total \$
Dr. Uddameri	50	\$6,000
Labor Total		\$6,000
Travel Expenses		\$500
Direct Expense Total		\$500
Project Total		\$6,500

DELIVERABLES
<ol style="list-style-type: none"> 1. Written Report about Findings 2. Meeting Presentation of Report Findings

SCHEDULE
45 Days – constrained by availability of District Directors

APPROVALS
Approved by (Signature): _____ Date: _____ Approved by (Printed): _____

**Development of Well-Spacing Guidelines for Consideration by the
Victoria County Groundwater Conservation District**

Proposal Submitted to:
Victoria County Groundwater Conservation District

Proposal Submitted by:
Venkatesh Uddameri, Ph.D.

Submission Date:
03/04/2009

Introduction

Water well spacing requirements are common regulatory instruments that are primarily used to minimize well interference effects and avoid deterioration of water quality at production wells. Water well spacing regulations typically establish minimum spacing distances between water wells producing groundwater from a particular water-bearing zone. These regulations result in a cap on the number of wells that can be drilled and operated in a given area and as such have the secondary effect of limiting the amount of groundwater that can be produced in a given area. In particular, water well spacing regulations are necessary near property boundaries to minimize associated (negative) impacts that groundwater production by one entity has on the adjacent property owner. For example, adequate spacing requirements, in combination with production limitations, could be established to minimize drawdown at adjacent properties and assure equitable distribution of groundwater.

Goals and Objectives:

The primary goal of this study is to develop a modeling-based protocol for quantifying minimum well spacing requirements and use it with available site-specific information to develop well spacing guidelines for consideration by the Victoria County Groundwater Conservation District.

Conceptual Model

Consider a basic scenario depicted in Figure 1 (Plan View). Two production wells are located on either side of a property boundary and are at a distance, $2 \times r$ ft, from each other. Figure 2 depicts the cross-sectional view and the drawdown effects due to pumping.

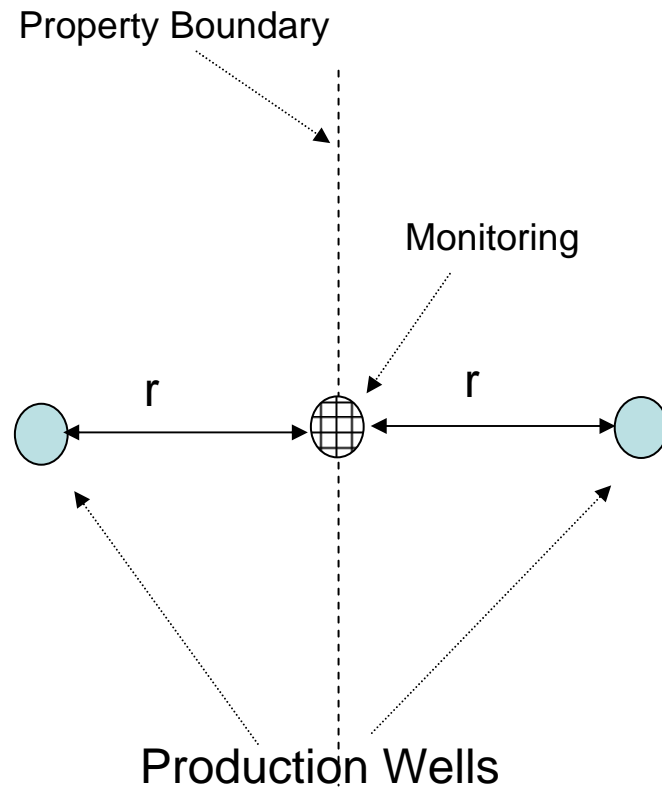


Figure 1: Plan-View of the conceptualization of two wells near a property boundary

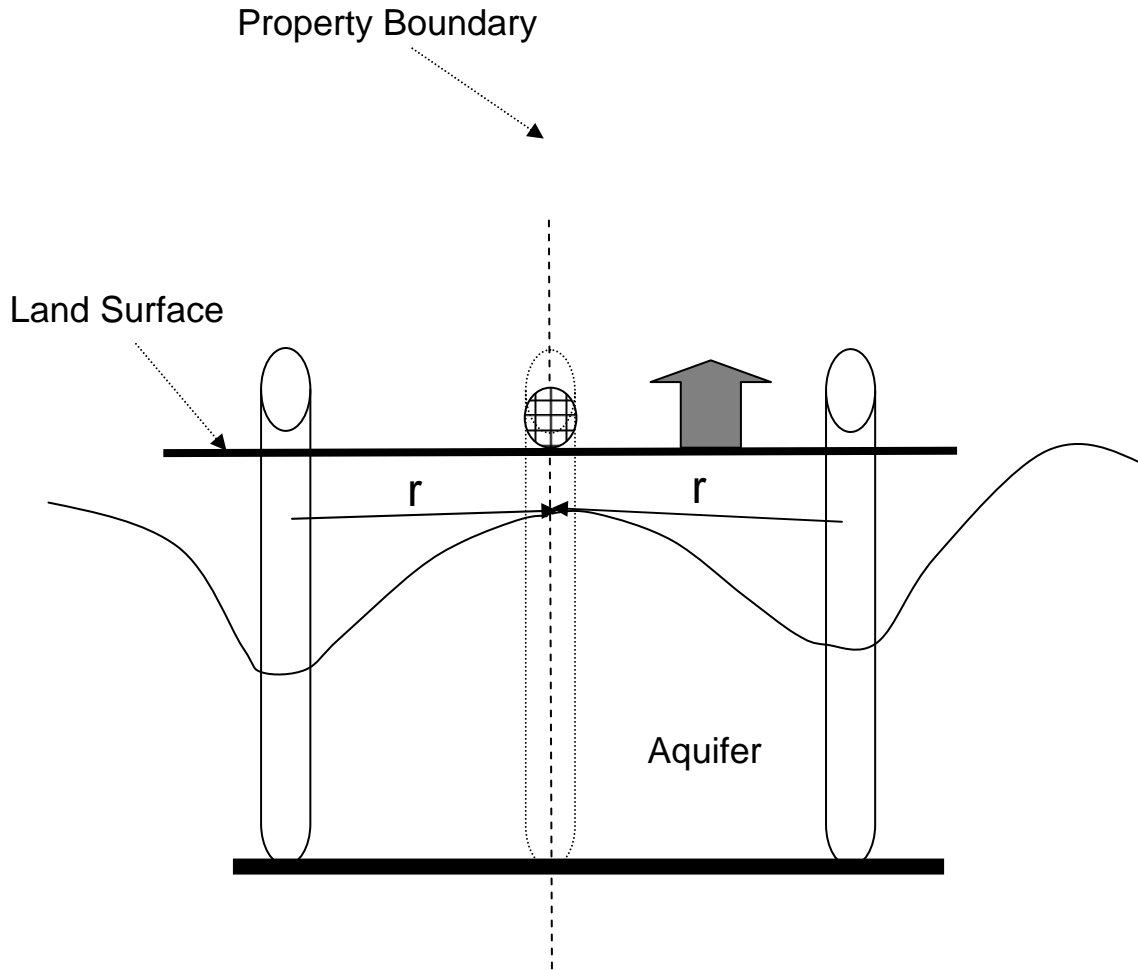


Figure 2: Cross-section view of the conceptualization of two production wells near a property boundary

The goal of properly designed well spacing requirements is to ensure that the radius of influence (r) of each well terminates within the property boundary (Note: an actual well is not present at the property boundary and assumed to exist for conceptual purposes only.). These requirements will ensure that the pumping effects are not spilled over into the neighboring property. While extremely larger well spacing requirements would ensure that the radius of influence is contained within the property, it would simultaneously limit the amount of land that is eligible for placement of a well.

Using the above conceptualization as the basis, identification of optimal well spacing requirements can be viewed as finding the minimum distance between the well and the property boundary such that there is minimal interference at the property boundary. In other words, the well is placed such that the drawdown at the property boundary is below some pre-defined preference value of acceptable drawdown. This acceptable drawdown value depends upon the preferences of decision makers. Making the acceptable drawdown value larger would allow the wells to be placed closer to the boundary and would indicate an increased tolerance on part of the decision makers to accept well interference when all other conditions are held to be same. Mathematically, the idea can be expressed as:

$$\text{Min: } r \quad (\text{Minimize the distance between the well and the property boundary}) \quad (1)$$

Subject to:

$$dd_p \leq dd_{acc} \quad (\text{Drawdown at the boundary is below some acceptable value}) \quad (2)$$

$$Q_w = Q_{req} \quad (\text{The well pumps at a required rate}) \quad (3)$$

$$r \geq 0 \quad (\text{non-negativity constraint}) \quad (4)$$

The drawdown at the property boundary (dd_p) depends upon several factors such as the type of the aquifer formation (confined or unconfined); thickness of the aquifer strata; and the hydraulic conductivity and aquifer storage characteristics. In addition, the drawdown also depends upon the distance between the well and the property boundary as well as amount of water extracted from the well. For a given set of hydrogeological

conditions the goal of this optimization program is to search for a suitable, radius r , such that the constraints (acceptable preference values) are all met. Given the nonlinear nature of the model, the implementation will likely require commercial optimization programs similar to the SOLVER add-in in EXCEL.

The above idea can be extended to a situation where there are multiple wells in each property as depicted in Figure 3.

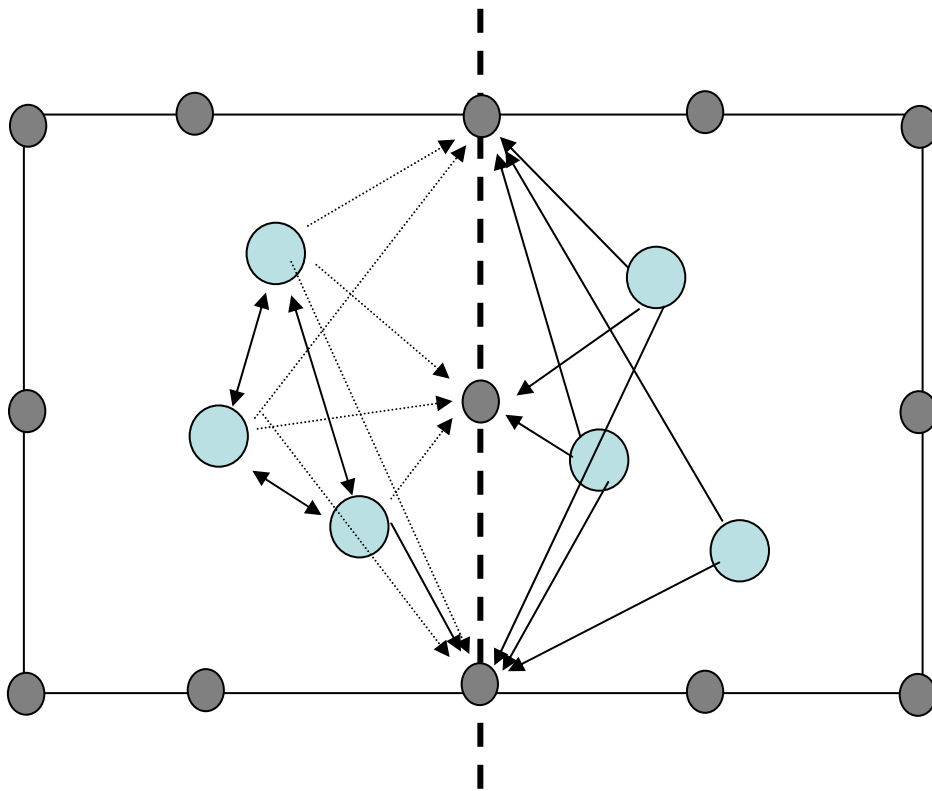


Figure 3: Extension of Well Spacing Problem with Multiple Wells and Multiple Boundaries.

Although arrows are only shown for one boundary, the distances from other fictitious monitoring wells along other boundaries will have to be considered as well. The

mathematical problem is then to find optimal well locations (and therefore the distance between the wells) such that the interference at the property boundaries (indicated by light arrows) as well as interferences between the production wells is minimized while ensuring that the wells produce the required amount of water.

Model Development

As well spacing requirements regulate local scale placement of wells (i.e., near property boundaries) the use of regional-scale groundwater models are not appropriate for this purpose. To model near well (local-scale) effects, analytical models such as the Theis solution will be used. However, hydrogeological information obtained from the TWDB Central Gulf Coast Aquifer Groundwater Availability Model (GAM) will be used to parameterize the model. GAM data to be used will include estimates of hydraulic conductivity and aquifer thicknesses. Groundwater statutes in Texas presented in Chapter 36 of the Texas Water Code require that where ever possible, GAM information be used for policy making. The optimization model will be developed in the MS-EXCEL environment. The Victoria County Groundwater Conservation District Board of Directors (BOD) will be interviewed to obtain estimates of acceptable preference values (i.e. drawdown) at the boundaries as well as to develop and refine the conceptual model for multi-well scenario. Input from well drillers and other knowledgeable stakeholders may also be sought for this purpose.

Deliverables

A presentation will be made at a District meeting highlighting the methodology and the results. A written report detailing model equations, salient assumptions and results will

also be developed and presented to the District. The MS-EXCEL optimization model files will also be made available to the District.

Timeline and Costs

It is anticipated that the project can be completed in a period of 45 days. The total project cost is estimated at \$6,500. The labor expenses are estimated at \$6,000 (50 hrs x \$120/hr = \$6000) and travel expenses are estimated at \$500 (4 trips for interviews, presentation and project discussions).

Meeting Management - Pre-Meeting Detail View

Meeting Item Details	
Item ID:	6
Item Title:	Closed Meeting (If Necessary) pursuant to V.T.C.A Government Code 551
Management Discussion:	
Management Recommendation:	
Financial Details:	
Related Documents:	

Meeting Management - Pre-Meeting Detail View

Meeting Item Details	
Item ID:	7
Item Title:	Return to Open Meeting (If Necessary) pursuant to V.T.C.A Government Code 551
Management Discussion:	
Management Recommendation:	
Financial Details:	
Related Documents:	

Meeting Management - Pre-Meeting Detail View

Meeting Item Details	
Item ID:	8
Item Title:	Discussion and Action Related to Closed Meeting (If Necessary)
Management Discussion:	
Management Recommendation:	
Financial Details:	
Related Documents:	

Meeting Management - Pre-Meeting Detail View

Meeting Item Details	
Item ID:	9
Item Title:	Adjourn
Management Discussion:	
Management Recommendation:	
Financial Details:	
Related Documents:	