

**Meeting Summary
Leon River TMDL Stakeholder Group
Comanche Community Center
Comanche, TX**

February 28, 2006

STAKEHOLDERS MEMBERS PRESENT:

Jay	Bragg	Brazos River Authority
Jennifer	Bronson	Texas Parks & Wildlife Department
David	Carrothers	City of Dublin
The Honorable Dickie	Clary	Hamilton County Commissioner
The Honorable Richard	Cortese	Bell County Commissioner
John	Cowan	Texas Association of Dairymen (TAD)
The Honorable Fred	Cox	Hamilton County Judge
Hall	DeBusk	Hamilton-Coryell Soil & Water Conservation District
David	DeJong	Texas Association of Dairymen (TAD)
Richard	Eyster	Texas Department of Agriculture
Bill	Flannery	City of Comanche
Tom	Gerik	Texas Agricultural Extension Service
Bill	Funderburk	City of Hamilton (Proxy for Ronnie Harris)
Royce	Lubke	Cattle Rancher
Norman	Mullin	Enviro-Ag Engineering
Frank	Sprague	Hamilton County Farm Bureau
Genell	Stuteville	City of Gustine
Aaron	Wendt	Texas State Soil and Water Conservation Board
Bob	Whitney	Texas Coop Extension Service - Comanche County

STAKEHOLDERS MEMBERS ABSENT:

Larry	Adams	Cattle Rancher
Bruce	Butscher	City of Temple
Robert	Fleming	Texas Farm Bureau
Clarence	Richardson	Agriculture Research Service
Fred	Weaver	City of Gatesville

SUPPORT TEAM:

Kerry Niemann, Jody Henneke, Tom Weber, Faith Hambleton, John Gillen, Steve Minick (TCEQ-Austin), Frank Espino (TCEQ-Dallas/Fort Worth), Michael Martin & Bill Ross (TCEQ-Stephenville), Cliff Moore & Winona Henry (TCEQ-Abilene), Robert Ozment (TCEQ-Waco) James Miertschin (James Miertschin & Associates),

Others Present:

Larry L	Anderson	Academia
County Judge James	Arthur	Comanche County
Joe	Ballard	
Garry	Barrick	
Chris	Biggs	

Brian	Bingham	Rancher
Carey	Bingham	
G H	Bingham	
George	Bingham	
Jerry	Bingham	
Mike	Bingham	
Clint	Bissott	City of Dublin
Gene	Blackwell	
Billy Edd	Blue	
David	Bohac	Texas Farm Bureau
Matt	Brockman	TX & Southwestern Cattle Raisers Assoc
Monte	Carmichael	
Dwain	Carroll	
Robert	Chaison	Land Owner
Caleb	Chapman	Dublin Citizen/Media
The Honorable Dickie	Clary	Hamilton County Commissioner
Roland	Collins	
Johnny	Conine	
The Honorable Richard	Cortese	Bell County Commissioner
John	Cowan	Texas Association of Dairymen (TAD)
The Honorable Fred	Cox	Hamilton County Judge
July	Danley	TCAA
Hall	DeBusk	Hamilton-Coryell Soil and Water Conservation District
Glenda and Pinke	deGroot	Dairy
David	DeJong	Texas Association of Dairymen (TAD)
Dinah	Densman	
Tom	Dowell	
Monte	Dozier	Texas Cooperative Extension
Jack	Dragoo	Land Owner
Ginger	Dudley	Rancher
Harry	Dudley	9300 Hwy 67
Luke	Easley	
Tommy	Elliott	Beef Farmer
Les	Etherton	Rancher
John	Evrige	
Jim	Farley	Land Owner
Kenneth	Feist	
John	Foster	TX State Soil & Water Conservation Board
Bill	Funderburk	City of Hamilton
Gene	Gilbreath	
Curtis	Giles	
Jeff	Goodwin	NRCS
Tom	Gordon	City of Dublin
Kerry	Haliburton	
Rick	Hansen	Stakeholder
J. L. and Kenneth	Harris	Rancher
Rusty	Harris	Hamilton County Farm Bureau
Ken	Harvick	Land Owner
Bob	Haschke	KSTV Radio Station
Gerard and Himke	Hoekman	

Lloyd	Huggins	Hamilton County Farm Bureau/Rancher
Doug & Marti	Ischy	Agriculture
Gaylon	Jones, Jr.	Land Owner
Jim	Kenton	Land Owner
Larry	Kimmell	Land Owner
Betty	Kirkland	Rancher
Bill	Lane	
Bruce	Lesikar	Texas Cooperative Extension Service
James & Sue	Lester	
Lee	Loeffler	
A. C.	Lowther	Consultant
Quay	McCall	
Mark	McDonald	Comanche County Courthouse
Travis	McKinney	
Larry	McKnight	
Andy	McMullen	Hamilton County Attorney
Ned	Meister	Texas Farm Bureau
Jonas	Miller	U.S. Congressman John Carter/Congressional Affairs
Representative Sid	Miller	Texas House of Representatives – District 59
Wayne	Moenman	Land Owner
Don	Moore	Moore Farms
Joe	Moore	Land Owner
Jerry	Morgan	De Leon Free Press
Roy	Newsom	Land Owner
Richard	Niblett	Agriculture
Leon	Nichols	
Mark	Nowlin	
Robert	Ozment	TCEQ - Region 9 (Waco)
James	Rackley	
Pat	Radloff	Texas Parks & Wildlife Department
James	Richards	
Linda	Rippetoe	
Carrol	Seago	Land Owner
Kenneth	Sears	
Wayne	Sears	Land Owner
James A	Seigars	City of Dublin
Bill	Shipman	
Ted	Simpson	NRCS
Carolyn	Smith	Land Owner
Kenneth	Smith	
Tim	Stallings	
Jeff	Stark	Land Owner
Garry	Steeb	County
Virginia	Stephen	
Rodney	Stephens	Land Owner
Carol	Swinney	
Carol	Teich	Land Owner
Charles	Teninay	
Feije	Terpstra	Mountain View Dairy
Lance	Teten	Farm Owner
Dan	Thatcher	

Lial	Tischler	Consultant, Texas Association of Dairymen (TAD)
Derek	Turner	City of Comanche
Frank	Valleman	Wildcat Dairy
Sjoerd	Van Der Wier	
Kevin	Wagner	Texas Water Resources Institute
Ben	Waldrep	
Whit K	Weems	Texas Cooperative Extension - Hamilton County
John	Weidner	
Rollie	Welty	
Lillian	Wilhelm	Cow/Calf Operator
Randi L	Willis	Dairy Owner
Clint	Wolfe	Texas Water Resources Institute
Blake	Woodall	Senator Fraser's Office
Ronald	Woolley	Texas Cooperative Extension Service
W.W.	Woolsey	
Rex	Plumber	Land Owner
James	Williams	City of Dublin

WELCOME AND INTRODUCTIONS:

The meeting was held at the Comanche Community Center located at the corner of Indian Creek Drive and U.S. Hwy 377 West of Comanche, from approximately 1:30 p.m. to 3:30 p.m. on Tuesday, February 28, 2006. Ms. Jody Henneke, who acted as the Facilitator, introduced herself and gave a brief bio of her education and background. The elected group of stakeholders sat up front, and the general public filled the rest of the room to capacity. Stakeholders and elected officials in the audience were introduced and thanked for their time and work on this TMDL project.

Kerry Niemann, the Project Manager for the Leon River project, addressed the group to report and update the 24-member stakeholder committee. Three new members were recommended and approved following the stakeholder ground rules. The new stakeholder members are Frank Sprague with the Hamilton County Farm Bureau, Judge Fred Cox with Hamilton County, and County Commissioner Dickie Clary also representing Hamilton County.

Kerry gave a brief history of the Leon River TMDL project, and a brief description of the public meetings held to date. The stakeholder advisory committee was formed at the first meeting in 2003; historical data was reviewed and monitoring results were shared at the second meeting in 2004. At the third meeting in October 2005, information discussed at the first two meetings was again reviewed for newcomers, and a discussion of the modeling phase and preliminary Bacteria Source Tracking (BST) results began. The fourth meeting was held in January 2006. The focus was on additional modeling emphasizing results and calibration. After the fourth meeting, TCEQ posted the draft modeling report on its website and invited written comments. The comment period for the *draft* modeling report has been **extended through March 14, 2006**.

Past Leon River project meeting summaries, meeting presentations, etc. can be viewed on the following TCEQ web page:

http://www.tceq.state.tx.us/implementation/water/tmdl/34-leon_group.html

Tom Weber reported the goal of the TMDL Section of the TCEQ was to develop sound and reasonable TMDLs that would address the water pollution in the Leon River. Tom gave a brief

history of his education and work. Tom stressed that one of his primary goals at the meeting was to enable effective two-way communication – listening to the stakeholders concerns about the Leon River TMDL and to explain exactly what the TMDL means and what it does not mean.

Available at the evenings' meeting was a hand-out on frequently asked questions and answers on the Leon River TMDL project. An electronic copy of this hand-out is available on the TCEQ web site mentioned above.

Tom said the TCEQ was mandated to perform the TMDL on the Leon River because the bacteria levels are too high. The U.S. Environmental Protection Agency (EPA) requires that all states develop a TMDL under the federal Clean Water Act when impaired. He added that if the TCEQ does not develop the TMDL, then the EPA will do it for the state of Texas. Tom said that the TCEQ is very committed to a stakeholder involvement process to develop the TMDL, whereas the EPA normally does not take stakeholder participation into the process.

Tom stated that there are two phases to the Leon River TMDL project. In the first phase, we are working with the stakeholders, using available science and data, and then will develop the draft TMDL. There is about four years of data available from the Leon watershed that has been reviewed and is the basis for the model, which will be used to estimate the amount of bacteria that can enter the river and be assimilated (meet standards). When the model is completed, a TMDL report is developed that documents what amount of bacteria (the daily “load” of bacteria) can be discharged and still allow for contact recreation, such as swimming, to safely occur in the river.

Another hand-out at the meeting was a map showing the area or portion of the Leon River (indicated by a bold red line) where data results showed bacteria was exceeding the 200 colonies mg/liter. This hand-out was developed with data that had been collected since 1996. The other areas of the river are below the 200 mg/liter and considered as “meeting the contact recreation standard.” The levels indicated in red on the map are not considered safe for contact recreation and are triggering the need for the TMDL. There was a lot of discussion about the map, and some questioned its accuracy. Rep. Miller asked that a correct map be disseminated next time. Faith Hambleton committed to checking the map's accuracy and making sure correction were available on the web.

Tom then discussed the second phase of the TMDL, called the implementation phase. This phase begins after the TMDL is finished and adopted by the TCEQ Commissioners. The TCEQ and the Texas State Soil and Water Conservation Board (TSSWCB) would be the lead agencies in developing the implementation plan. A balanced stakeholder group that is representative of the watershed is formed to begin the development of the implementation plan. In developing this plan, Tom stated that the TCEQ would work with the dischargers to determine what practical and economically feasible reductions of bacteria could be implemented to achieve the goal for the Leon River's water quality and bring it into compliance under the Clean Water Act. The Governor of Texas has adopted a non-point source program that will also be implemented and reductions in bacteria levels addressed through voluntary and incentive based measures.

Continued monitoring of the Leon River will also be a part of the implementation plan and will tell us if the goal of meeting the contact recreation standard is being met – or not met. Tom re-emphasized that he was committed to recommending to the agency’s leadership a reasonable course of action for the project that was based on the best available science and data.

Faith Hambleton was the next speaker and presenter and covered the model development. Faith (FH) and James Miertschin (JM) (TMDL Consultant) answered questions. Highlights of the presentation are presented below.

Re-Cap of Handout: Possible controls that could be seen through the TMDL Implementation phase might be (Point Sources): improving sewage collection systems to minimize leaks and overflows and improve disinfection processes at wastewater treatment facilities; (Non-Point Sources): stakeholders and group to look at run-off from these areas, compliant or non-compliant septic systems could be factored in.

Questions (Q), Answers (A), and Comments (C) are noted below.

(Q): Faith, can you tell me what kind of water we are inheriting into this watershed – Lake Proctor? What kind of quality it is? And explain how that is incorporated into this TMDL formula?

(A): (FH) Sure, the water that is coming out of Lake Proctor was looked at in terms of how much fecal material was coming out. In table 6-2, this shows what is input into the model. It says there is a loading of bacteria coming out of Lake Proctor. That load is therefore taken into account. Look at Figure 5-24, that is a pie chart – the upstream release from Lake Proctor is 4.87%. Approximately five percent of the total load is coming out of Lake Proctor. Five to six sampling stations were in the lake and sampled over the course of about 5 years. I recall fecal coliform numbers of 32 and 6 cfu/100ml, very small.

(C): (FH) While there is a contribution to the downstream part of the Leon River, Lake Proctor is in compliance with the water quality standards and contact recreation. While it is a contributor, the load that is coming into the stream, from Lake Proctor itself and its discharge, is not out of compliance. The Lake is not impaired.

(Q): Was the testing or monitoring taken as seriously, as frequent, and for the same constituent as the Leon River? (Referring to Lake Proctor again)

(A): A certain number of samples, time, and data are required in order to make a determination if a water body is meeting its standard.

(Q): At the Hwy. 281 Junction, from that point downstream, it (Leon River) is in compliance. What happens at that point? Does it just get polluted and maybe I need a lesson here on bacteria. Once it (the bacteria) is in the water, is there things that make it grow? Are there things that kill the bacteria? What would make it change at that point?

(A): (JM) There isn’t any sharp change in conditions at Hwy. 281. That is a sampling station where the data results show that the stream is impaired (very high at 281). The next station is probably 30 miles downstream – is not impaired (does not drop instantaneous, but slowly); that is a historical station (County Road 394). The fecal coliform bacteria and the other bacteria die

off through natural causes (sunlight). As they are in the stream, they could be killed by UV radiation or settle out.

(Q): The reason I asked that question about Lake Proctor is because that water body could potentially fall right below the threshold for contact recreation use. My question is, over time, does this model give us the ability to take changing water conditions in Lake Proctor into account? How does this model react to that?

(A): (JM) Yes, the model can react.

(Q): Are those numbers per unit area or what? What are the units?

(A): (FH) Those are concentrations of organisms per 100 milliliters (ml) – which is a conventional way to state bacteria concentrations.

(Q): (referring to the bacteria numbers) That is not really a sampling. That is a calculated figure based on the amount of livestock, wildlife, and animals that are out there based on your studies. You did not take any actual run-off samples, did you? This would be based on the estimated numbers of animal units in those areas.

(A): (JM) We took samples from the receiving streams under run-off conditions but we did not go to a single land use and collect samples (event mean run-off in second column). No, it is developed through the calculation procedures that do not really depend on the number of animals.

(C): (FH) It is the amount of fecal matter that comes out of the back-end of a given animal.

(Q): Do those numbers (under your column under reach 60) do those represent actual measurements taken in that reach 60 or is it an estimate based upon model input?

(A): (JM) Those are estimates, not actual measurements. Those are the numbers that are in the model to represent what is in the real world.

(Q): You have forest land and range land – what is the basis for separating those types and what do you attribute that change to?

(A): (JM) They are available in the land use classification. We can call it range land – or pasture. These are U.S. Geological Survey (USGS) definitions. We keep them separate because they can have different characteristics in run-off.

(Q): Do we have forest land in this watershed?

(A): (JM) Yes

(Q): Why do you see a significant difference and other studies do not show a change between forest-land and range-land?

(A): (JM) We had different loading rates on the two categories, with slightly different concentrations.

(Q): The main question is how does the impaired section of the stream change from the un-impaired as far as land-use treatment goes?

(Q): (JM) Do you mean, is there a land-use change as we move downstream?

(Q): Yes, what conditions are different in the impaired section versus the un-impaired?

(A): (JM) The land-use is mixed (I have not compared it to the upper or lower) – it is fairly consistent proportion of range-land and forest land throughout. We have more waste application fields in the upper portion of the watershed.

(Q): How about point sources?

(A): (JM) We have point sources in the upper and lower reaches.

(Q): How did you determine the estimates for each of these ranges? How did you draw the ranges for the model?

(C): (stakeholder) They appear to be very conservative estimates.

At this point, the Facilitator interacts with some other stakeholders.

(A): (FH) Let me reiterate your questions. The first part asks how we determined the numbers shown next to the range (on the screen). The second part is how does the number of animals factor in or don't factor into this. The numbers that were chosen are not conservative. James can explain animal numbers.

(A): (JMA) This is all part of the calibration exercises that we went through. Initial values are adjusted or the rates changed to get a bacteria result that matches the in stream numbers. The Facilitator asked about the word calibration, and JM replied, that's what's done in a model, calibration.

At this point, John Cowan addressed the floor and said that this was an opportunity to better understand the TMDL process. He stated that there was misunderstandings and a definite lack of understanding of how the TMDL process works. He commented that the livestock industry is in support and wants to partner with the municipalities and county government, to look at the Leon watershed to find a meaningful resolution to the process. He also recognized the role of the TCEQ need for partnering the point sources and the TSSWCB for non-point sources and Senate Bill 503. He suggested that everyone look at the watershed from a holistic point of view and encouraged a Watershed Protection Plan (WPP) concept to assist the Leon River water quality and to get it off the 303 (d) list. He petitioned the group to embrace the concept of working in tandem – with every agency involved.

(C): One of my greatest fears on this watershed is that whatever we do would not be based on sound science. Whatever we do, it has to be based on sound science – not wags, guesses, and models. It has to be accurately gathered information. This looks suspect to me. Your waste application fields, which you would think would have high concentrations of fecal coliform bacteria, are half the minimum of the other studies. My common sense meter just goes off.

(Q): Has septic tank information been gathered and figured into the model?

(A): (FH) Yes

Bacteria Source Tracking (BST)

James Miertschin presented BST data on work that was done by the Agricultural Resource Center, a branch of TX A&M located in El Paso. Water samples were collected in lots of 10 at time intervals of 2 minutes at each station over the period of February 2005 – July 2005. Observed bacteria counts were generally higher at FM 1702 compared to US 281. The highest daily event geometric mean was observed at FM 1702 in May 2005 with a mean value of 991 org/100ml. The second highest mean value was also observed at the same location, with a mean value of 890 org/100 ml in July 2005. It was pointed out that human sewage was identified as the largest source of bacteria during the May sampling event.

A chart was shown up on the screen. The predominant source identified was wildlife (43%) and the next two most prevalent sources were humans (18%) and cattle (14%). Unidentified sources were (12%). These numbers add up to approximately (75%). The loading sources matched up well with the model. The waste application field run-off, which is a non-point source, is in with the other non-point sources that are wildlife or livestock

(Q:) What are you going to do about the wildlife contribution?

(A): (FH) The TCEQ management does not have the intent of rounding up all wildlife, exotic or otherwise. We are discussing this issue with EPA, and hope that bacteria from native species can be considered background – its just there.

County Commissioner Dickie Clary asked Representative Miller if he could check into something to help and assist in combating the feral hog problem.

(C): Because this is such an important thing for the City of Hamilton and the dairymen in Hamilton County, I want this to be right.

Facilitator noted time and started to wrap up meeting, noting that some folks had left.

Tom Weber wrapped up the meeting by emphasizing a couple of points. All comments due to the TCEQ by **March 14** on the draft modeling report can be turned in to Kerry, the address is on the back of the FAQ handout. Comments made at the meeting are also to be considered. The TCEQ is sincere in wanting to ground-truth the numbers in the model. The TCEQ believes the stakeholders have a lot to add and welcome the stakeholder participation and input.

After March 14, the TCEQ will host a technical modeling meeting and figure out how to address all the comments. After that, the TCEQ will be at a decision making point on how to proceed. There is not a firm deadline even though there is a project schedule – the original goal was to have this adopted by August 2006. Through these discussions we hope to improve the stakeholder comfort level by addressing the comments and desire to move forward together. If it is determined that additional data collection is needed to remove the uncertainties that the public is concerned about, the TCEQ would commit our resources and program to do that. Your participation is greatly appreciated.

ACTION ITEMS:

1. Stakeholders would like more explanation on if the land types are similar – why do we have different numbers? In Reach 60 – different numbers for each of the reaches.
2. Stakeholders from the Hamilton area would like a better understanding of the actual impairment areas, where it begins and ends in the Leon River. Map may need revision. (MDLs on page 3.2)
3. The City of Hamilton asked the the TCEQ would re-evaluate Hamilton’s contribution to the bacteria load in the Leon River.
4. City of Dublin asked for a corrected map of the impaired reach.
5. There is no state agency that seems to be able to help with the hog problem – can you help us address this? (Directed at Representative Miller).

The meeting adjourned at 3:30.