

**Meeting Summary for the  
Copano Bay Bacteria  
Total Maximum Daily Load (TMDL) Project  
SPONSORED BY THE  
Texas Commission on Environmental Quality  
Wednesday, April 26, 2006**

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**Attendees:**

Alex	Nunez	TPWD
Alton O	Martin	
Arthur L & Jeanytte	Bluntzer	Texas Farm Bureau/Rancher
Barbara	Buck	Coastal Bend Bays & Estuaries Program, Inc.
Bob	Edwards	SCBI
Bobby	Nedbalek	
Charles	Smith	
Denis	Carnes	
Don	Sugarek	Texas Farm Bureau/Landowner
Don & Cheri	Sheets	Cape Veleuo
Donald	Swann	San Patricio Soil and Water Conservation District
Donna	Long	TSSWCB
Duane	Campion	Sherwin Alumina Co.
Earl	Matthew	Texas Committee on Natural Resources
Elizabeth	Smith	Texas A&M University-Corpus Christi
Eulie	Ray	
Evelyn	Kuhn	
Frank	Reilly	City of Rockport
Gay	Hejtmancik	
Gerardo	Arrambide	TCEQ Reg. 14
Glenn	Guillory	Aransas County
Howard	Murph	
Hugh	Jameson	Key Allegro Homeowners
J.	George	Jalco
J.D.	McGuill	CBSWCD
Jim	Bowman	Coastal Bend Bays & Estuaries Program, Inc.
Joanna	Schmermund	Key Allegro Homeowners
Joel	Hall	Copano Bay SWC
Jose	Garcia	
Karen	Meador	TPWD
Kenda	Ray	TSSWCB
Kevin	Wagner	TWRI
Kirk	Feuerbacher	McFaddin Ent. Ltd
Leroy	Wolff	USDA-NRCS
Linda	Collins	
Lonnie	Matthew	

**TMDL Meeting 3 Summary - Copano Bay Bacteria  
Wednesday, April 26, 2006**

Lynn	Drawe	Welder Wildlife Foundation
Lynn	Edwards	Save Cedar Bayou Inc
Michael	Heffemon	
Nancy	Arispe	Town of Fulton
R C	Allen	Ford Ranch
Ray	Allen	Coastal Bend Bays & Estuaries Program, Inc.
Richard	Bianchi	
Richard	Eyster	TDA
Richard	Heidland	
Richard	Thomes	
Rocky	Freund	Nueces River Authority
Ron	Helmke	Rockport Water Quality Committee
Russell	Carden	TAMU - Center for Water Supply Studies
Thomas	Blazek	City of Rockport
Will	Blackwell	USDA-NRCS

**Project Staff:**

Sandra Alvarado - Texas Commission on Environmental Quality  
Faith Hambleton - Texas Commission on Environmental Quality  
Joey Anderson - Texas Commission on Environmental Quality  
Earlene Lambeth - Texas Commission on Environmental Quality  
Carrie Gibson - UT-Center for Research in Water Resource (CRWR)  
David Maidment - UT-Center for Research in Water Resource (CRWR)  
Mary Jo Kirisits - UT-Center for Research in Water Resource (CRWR)  
Elizabeth Smith – Texas A&M University - Corpus Christi

**Stakeholder Meeting *Revised* Agenda  
for the  
Copano Bay Bacteria  
Total Maximum Daily Load (TMDL) Project**

**SPONSORED BY THE  
Texas Commission on Environmental Quality**

**Wednesday, April 26, 2006  
Saltwater Pavilion  
810 Seabreeze Drive  
Rockport, Texas  
6:30 PM – 8:30 PM**

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The purpose of the meeting is to inform the public of the status of an on-going TMDL Project in the Copano Bay Watershed (Copano/Port/Mission Bay (segment 2472), Mission River Tidal (segment 2001), and Aransas River Tidal (segment 2003)). The TCEQ will provide an opportunity for stakeholder input to the project, modeling and the formation of a Copano Bay Watershed Advisory Group. This meeting will focus discussions only on the Copano Bay Bacteria TMDL Project. If other issues arise that are not pertinent to this project, we will see that they are passed along to the appropriate individual(s).

- 6:30 Welcome, Introductions and Purpose  
Sandra Alvarado, Project Manager
- 6:40 Formation of Copano Bay Watershed Advisory Group  
Earlene Lambeth, TCEQ Outreach Coordinator
- 6:50 Bacteria Loadings Watershed Model Updates  
Dr. David Maidment, Director and Professor of Civil Engineering  
Ms. Carrie Gibson, Graduate Research Assistant  
University of Texas Center for Research in Water Resources
- 7:30 Bacteria Source Tracking  
Dr. Joanna Mott, Associate Professor of Biology  
Texas A&M University Corpus Christi
- 8:00 Open Discussion
- 8:30 Wrap-up and Next Steps

**Introduction** - Sandra Alvarado, the Total Maximum Daily Load (TMDL) Project Manager, opened the third meeting for the Copano Bay bacteria project with introductions. She thanked the City of Rock Port for providing a meeting place and also a thank you to the Coastal Bend Bays & Estuaries Program for providing refreshments for the stakeholders.

**Modeling Presentation – Carrie Gibson**

Carrie Gibson with the Center for Research in Water Resources at the University of Texas at Austin, under the advisement of Dr. David Maidment, presented the Copano watershed up-dated model.

Carrie's model presentation can be viewed on-line at the following address:

<http://www.tceq.state.tx.us/implementation/water/tmdl/42-copano.html#documents>

Carrie presented a brief summary of the presentation she made at the prior meeting along with changes that resulted from comments received at the previous stakeholder meeting. Changes to the model included wastewater treatment plants not disinfecting the effluent properly; livestock loadings should be reconfigured because they were over estimated; and the last item was to take into consideration feral hogs into the model. She answered each of the items independently and in detail. Her conclusions were as follows:

- WWTP loadings were largely overestimated.
- Livestock loadings
  - Bacteria/pathogens can survive in fecal paddies.
  - Even if we don't account for bacterial loadings from pasture runoff and only include bacterial loadings directly discharged in the streams (based on EPA assumptions), livestock are still a major bacteria source.
- Difficult to quantify number of feral hogs in watershed.
- Correlations between fecal coliform and the other bacterial indicators have been determined.

Stakeholder concerns were expressed regarding the following:

- even distribution of cattle census data throughout the applicable land use types within the watershed,
- method used to calculate loads from OSSFs,
- appropriateness of water quality standard,
- shallowness of the areas in the bay closed to oyster harvesting,
- insisted on the use of runoff bacteria data from USGS study in the watershed (Ockerman, 2002),
- integration of water well data from the counties within the watershed
- better definition for point and nonpoint sources of pollution
- use of limited WWTP effluent monitoring data

Dr. Joanna Mott made the next presentation on the Bacteria Source Tracking (BST). She presented the details of her study and here is her summary:

- Fecal coliform levels elevated after rainfall at stations near river mouths (TDSHS)

- BST results suggest mixed sources with rainfall, (wind direction) and location affecting relative contributions

Sources: Human/sewage contribution, Livestock contributions - especially during elevated river flow/rainfall (as per model), duck in areas colonized by ducks, wildlife and gulls had little contribution.

Joanna also reported that the TDSHS data shows fecal coliforms high after rainfall i.e. runoff from land/marshes etc. rather than direct-stream sources which would be seen when no rainfall has occurred.

Stakeholder concerns were expressed as follows:

- What is the level of uncertainty with the methods used?
- Why were horses more predominant than cattle in the bay?
- Why weren't other animals (i.e. feral hogs, nutria, alligators, swallows, insects, etc.) considered in the library

### **Copano Bay Watershed Advisory Group (WAG)**

Earlene Lambeth reported that there were more than 24 people that had indicated their interest in serving as one of the Copano Bay Watershed Advisory Group members. She will work to revise the group and have a more detailed watershed stakeholder group at the next meeting. She said the group would be a balanced representation of the watershed stakeholders. Earlene reminded the group that the goal of the WAG will be to assist during implementation.

The stakeholders present expressed their concerns about the project and the model results. The agency will work with the stakeholders and various offices involved in the project to assist in a better understanding of the work and TMDL processes. The agency wants to assure the public that the most up to date scientific approach and data are being used and that it is the goal of the agency to involve the stakeholders in the TMDL process.

The web site for the Copano Bay project is located at:

<http://www.tceq.state.tx.us/implementation/water/tmdl/42-copano.html>