

**Fourth Meeting of the  
OSO CREEK/OSO BAY BACTERIA  
TMDL PROJECT  
Meeting SUMMARY  
1-17-06**

**Present at Meeting:**

Carl	Crull	HDR Engineering
Chad	Ahlgren	TCEQ Corpus Christi Region Office
Cliff	Beaber	Wastewater Department
Craig	Giggleman	USFWS
Craig	Reynolds	Sam Kane Beef Processing Plant
David Z	Conoly	Property Owner/Citizen
Don	Ocker	Bar D River Ranch / D & C Ocker Farms
Gene	Seaman	Congressman, Texas House of Representatives
Gerald	Book	Corpus Chapter of TX Kayak/Fisherman
Gerardo	Arrambide	TCEQ
Greg	Hilde	TAMU-CC Student
Guy	Watts	Stakeholder
Jennifer	Bronson	Texas Parks & Wildlife
Jim	Boyle	Stakeholder
Joanna	Mott	TAMU-CC / Center for Coastal Studies
John	Newsom	Barney Davis Power
Johnny	Cotton	Stakeholder
Johnny	French	Retired - US Fish & Wildlife
Karl W	Schuler	Corpus Christi Windsurfing Assoc (CCWA)
Ken	Faughan	Robstown Area Development Commission
Krystal	Alvarado	TAMU-CC Student
Lawrence	Jones, R.S.	Corpus Christi-Nueces County Public Health
Leslie	Smith	Center for Coastal Studies, TAMU-CC
Lionel	Lopez	South Texas Colonia Initiatives
Liz	Smith	Texas A&M University-Corpus Christi
M. Brent	Ocker	Landowner
Olga	Beaber	City of Corpus Christi
Owen	Hitt	Stakeholder
Patrick	Thomas	Fisherman/Property Owner Pelican Bay
Peggy	Glass	Alan Plummer Assoc, Inc.
Peggy	Sumner	City of Corpus Christi
R. Jay	Reining	City of Corpus
Ray	Allen	Coastal Bend Bays & Estuaries Program, Inc.
Richard	Eyster	Texas Department of Agriculture
Rick	Hay	Center For Water Supplies
Robert	Payne	City of Corpus Christi
Rocky	Freund	Nueces River Authority
Ron	Massey	City of Corpus Christi
Sue & Fred	Mavrer	Stakeholder
Zandra	Zuniga	Offices of Senator Juan Hinojosa-District 20

**Project Staff Present:**

Sandra Alvarado – Texas Commission on Environmental Quality

Earlene Lambeth – Texas Commission on Environmental Quality

Faith Hambleton – Texas Commission on Environmental Quality

Rick Hay – Center for Water Supply Studies, Texas A&M University Corpus Christi

Joanna Mott – Texas A&M University Corpus Christi

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## Stakeholder Meeting Agenda

SPONSORED BY THE  
**Texas Commission on Environmental Quality**  
REGARDING  
**Oso Creek/Oso Bay Bacteria**  
**Total Maximum Daily Load (TMDL) Project**

**January 17, 2006**  
**7:00 – 9:00 p.m.**

Carlos Truan Natural Resources Center, Room 1003 on the Texas A&M  
University Corpus Christi campus located at 6300 Ocean Drive

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The purpose of the meeting includes an update on the progress of the project and receive input from the stakeholders.

- 7:00 Welcome and Introductions
  - Review purpose of meeting and agenda - Sandra Alvarado
- 7:10 Oso Creek/Oso Bay Watershed Model – Rick Hay
- 7:35 Septic Systems presently in the Watershed – Lawrence Jones, R.S.
- 8:00 Brainstorming Session – Sandra Alvarado
  - Discuss sources of bacteria based on the available information
  - Identify measures to control bacteria from those sources
- 8:45 Open Discussion
  - Other on-going projects
  - Questions
- 9:00 Adjourn

**CALL TO ORDER/WELCOME:**

Sandra Alvarado, TMDL Project Manager with the Texas Commission on Environmental Quality (TCEQ) opened the fourth in a series of meetings for the on-going Oso Bay/Oso Creek total maximum daily load (TMDL) bacteria project. A special thank you was given to Ray Allen of the Coastal Bend Bays & Estuaries Program for their continued support to the project and providing refreshments for the attendees. Sandra also thanked Texas A&M University Corpus Christi for the use of their facility to hold the meeting. Sandra recognized Ms. Zandra Zuniga with Senator Juan Hinojosa's office for attending the meeting and providing comment and support for the project.

**Lawrence (Larry) Jones, R.S. –**

Larry with the Corpus Christi-Nueces County Public Health District presented information about on-site sewage facilities in Oso Bay and Oso Creek. He reported that to prevent surface and ground water contamination from occurring, only surface application systems are being permitted in areas where surface and subsurface migration could occur. He spoke about the growth of the area and how the septic systems were regulated.

A question was asked about when a house is sold, who is responsible for the inspection on the septic system. Larry reported that would be up to the homeowner. If they hired an inspection company they would be responsible. The county however, does not certify or inspect septic systems.

Another question asked was about flood zones. He said there were some areas where colonias were not in the flood zone but they were still flooding. Larry agreed and said they received many calls. Larry reported that about four or five years ago the county went out and looked at colonias regarding flooding problems. The county took into consideration the soil and felt the flooding in the colonias was attributed to poor drainage. The county reported that a low-pressure pump septic system would cost around \$4,200 - \$4,700 surface application systems would cost around \$6,000, and an irrigation system could cost around \$10,000. It depends on the area (soil), the size of the system, and all of the components.

C:-(LL) We have colonias being developed that will flood (being developed). We inherited areas that were beyond our control. We have control now through regulation. Any subdivision that is out there now that has substandard water or drainage is called a colonia. We have a lot of communities that we have to deal with. We will not allow a subdivision to be platted unless it is permitted and we determine the type of system. We still have raw sewage in areas when it floods. The colonias are already suffering enough. In some areas we can see raw sewage on the ground.

A: (LJ) - We did take samples and all I can say is that the samples came back OK, we even had a reporter with us that wanted to do an article.

Q: How do you decide if the septic system is just malfunctioning or fate of where it is placed?

A: (LJ) - There is going to be overflow. We call it hydraulic overload. We cannot push the soil – we have to look at the soil and see if it is clay or sandy loam. Unless you have a surface application system you will probably have problems.

Q:- SA Does your agency seek grant funding for upgrades?

A:- Ray Allen through the CBBEP has helped us a lot in the past years but there has not been any continuing effort. The TCEQ has also helped but there are so many communities' applying for the grants funding it is hard to secure them (funds).

Q: Where does the fee application fund for septic systems go?

A: The revenue goes into the counties general fund.

C: Sometimes money or application fees are waived on certain areas or subdivisions.

C: It definitely sounds like we have some problems and we can address this through the Implementation Plan of this TMDL.

Q: Is it possible to build one septic system for one colonia?

A: No, it would not be a legal system. The best thing to do is to build a municipal water system.

**Modeling – Rick Hay:**

Next on the agenda was Rick Hay who is the modeler for the Oso project. He reported that in Sept., Oct., and Nov., the routine sampling was performed monthly. In Dec., due to the amount of birds migrating in the area, the sampling was performed weekly. Some rainfall events were monitored in October and at the end of Nov. (2 rain events).

Q: Do you have any idea why that occurred on the southern part down by the bay? Isn't that abnormal?

A: These site assessments are not being used to access the actual segment. We differentiated those monitoring stations in the bay and the creek. Those stations are monitoring the flow to the bay and creek.

Rick reported that he back calculated the event mean concentration for the model and re-ran the model. He said that now, particularly in the upstream areas of the watershed the model is very close to actual conditions.

Rick discussed the handouts that had been prepared and given to the stakeholders. One was a map and all the sub-basins to help with the bacteria loadings. The pie charts showed relative amounts of land use (residential, urban, cropland, rangeland, and not classified (water or wetlands)). The bar charts show how much bacteria is in the run-off. All charts are  $10^{12}$ . Self-reported data was received from the city.

Q: There is a new landfill right by the creek for concrete. Does concrete have asbestos?

A: Concrete is recycled and you have to be careful. It could be a recycling operation.

Q: Is it going to be feasible to ever walk the creek and take grab samples?

A: It is expensive to do the testing. Maybe taking samples and concentrating on one segment that might be a problem or more isolated. We might also think about doing bacteria source tracking (BST) (human, cow, bird, etc.) but it is also very expensive.

C:- SA We are trying to get an idea of what happens throughout the year, through the seasons, looking at ambient and target stations before we use BST.

Q: The last time you spoke about birds. Any further thoughts?

A: We have gone about as far down that road as we can. There is not enough hard data to build into the model. We have tried to make some estimates and calculate the load whether it was bird or an animal.

Q: Are you seeing any correlation among land use and the high monitoring results?

A: With the point sources we are not seeing much influence. We could think about septic tanks, cows, horses, etc. There is not a good hydraulic conductivity in the soils here. How close would a septic tank have to be to the creek to be an influence?

The model is running well for what it is designed to do (model run-off). But the model is hungry – and it is not telling us the source of the contamination. That is why we have it broken into sub-basins, etc. to try and break it up.

Sandra reported to the group that the Coastal Impacts Assistance Program (CIAP) would have funds becoming available through an energy bill from oil and gas revenue from offshore. Texas will be receiving approximately 60 million dollars for the next four years. She is

hopeful that some of the brainstorming that would be done at the Oso meeting might be a good lead-in into accessing some of the funding to use in the Oso watershed addressing some of the bacteria issues. Ray Allen reported that Nueces County would be receiving hundreds of thousands of dollars through this program over the next four years.

There is also a TX DOT grant (water quality abatement run-off) that could prove to be a source of funding for the Oso watershed.

Through input from past meetings and work on the model, Sandra had compiled a list of bacteria sources and asked the group to brainstorm bacteria sources in the Oso watershed. Additional sources the group came up with were the following:

- Septic
- Illegal dumping
- Broken/leaking sewer
- Overflows
- Organic fertilizer
- Urban run-off/storm run-off
- Manure
- Feral Hogs
- Wildlife
- Sediment Loads
- Avian

Some of the actions that the group discussed were:

- Settling basins
- Wetlands
- Renew Regional Stormwater Management Plan
- Keep Barney Davis flowing
- Seek funding to address septic/drainage
- Implement city TPDES permit

Note: After the meeting the following suggestions were received:

- Coastal Bend Regional Park (by Rocky Freund, NRA)
- Compare principal characteristics of the two watersheds (i.e. Petronila Creek and Oso Creek) in terms of total area, land use, and bacteria measurements to see if there might be a reasonable explanation of why very similar areas don't reflect the same bacterial level problems.
- Investigate discharges from Cuddy Hayfield

The meeting was adjourned.