

Bacteria study looks for sources of contamination in the Río Grande

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The U.S. International Boundary and Water Commission's Texas Clean Rivers Program (USBWC CRP) carried out a two-day sampling bacteria study of the Río Grande in the Laredo sector from May 19 to 20.

Seven individuals from the USBWC CRP, Texas Commission on Environment Quality (TCEQ), and TAMU took water samples from almost 40 different stations designated as areas of interest along the Río Grande on both the U.S. and Mexico sides of the river.

The purpose of the study was to identify potential sources of bacteria contamination in the river in order to create a final report of data analysis and possible recommendations for action. The area of focus for the study was from the Jefferson Street water plant's intake area through the International Bridge #2 and downstream to the confluence of Zacate Creek.

The Laredo/Nuevo Laredo area of the Río Grande has had high levels of bacteria, specifically E. Coli and fecal coliform, for decades. Segments of the river, which run from the Jefferson Street water treatment plant to International Bridge I, have been listed as impaired for contact recreation by the Texas Surface Water Quality Standards.

Río Grande E.Coli bacteria values from 2009-10 ranged from 1,300 to over 1,800 colonies per 100 milliliters at certain sites of the river, more than 10 times the Texas standard for E.Coli

Tom Vaughan, Ph.D., TAMU biology professor and co-founder of the Río Grande International Study Center, was one of the participants of the study. He has conducted monthly testing of the river for the past 17 years but said that the study is a historic and significant first step for the area.

"This stretch of the river has not met its designated use because of high bacteria levels. We know where some of the sources of that bacteria are, but we don't know all of them," said Vaughan. "This will be the first step at stopping the inflows."

A majority of the 40 proposed sampling stations were sites that haven't been sampled in the past and will be



Tom Miller moves to the next testing site on the Río Grande

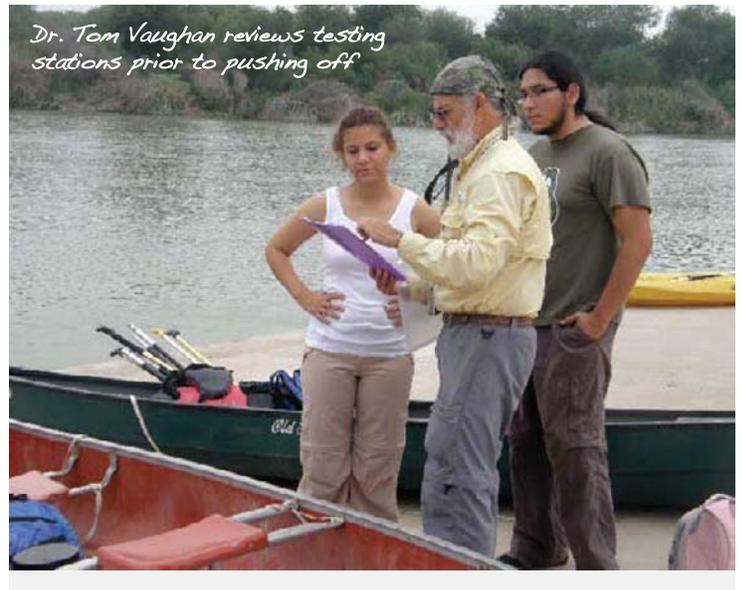
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compared to previous samples from the TCEQ database. The study will also survey structures along both banks of the river in order to identify the areas at which inflows of the bacteria are taking place.

The study mimics a similar study carried out in the Río Grande in the Brownsville/Matamoros area in 2010. The Laredo/Nuevo Laredo area bacteria issue is very similar to the Brownsville problem.

According to the study's problem statement and proposed solution, the City of Laredo Health Laboratory will analyze both fecal coliform and E. Coli bacteria samples. Results will be sent to the USBWC CRP for "quality assurance review and assessment" and they will collaborate with other participating entities to create a final report of the data.

If some of the sources on the U.S. side are in outfalls, then the city of Laredo would be obliged to remedy the problem, said Vaughan. ♦



Dr. Tom Vaughan reviews testing stations prior to pushing off