

**Lerma River Water Quality and Public Health  
DEVELOP National Program at Wise DEVELOP and Monterrey, Mexico  
Earthzine/DEVELOP Virtual Poster Session, Fall 2011**

**Video Transcript**

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[SCENE/SHOT] *Lindsey and Rebecca, team members of the Lerma River Project, stand in front of the DEVELOP National Program poster in the DEVELOP office in the Wise, Co. courthouse.*

[REBECCA] Hello, everyone! My name is Rebecca Tate.

[LINDSEY] And I'm Lindsey Honaker.

[REBECCA] We are part of the NASA DEVELOP Applied Sciences National Program, and we conduct research from here in Wise, Co. Virginia as part of the Lerma River Team.

[SCENE/SHOT] *Opening PPT slide*

[LINDSEY: voice over] Our project for the Fall 2011 term is focused on water quality in Mexico's Lerma River and Lake Chapala and how it relates to the agriculture and public health of the area.

[SCENE/SHOT] *2<sup>nd</sup> PPT slide – showing community concerns, project partners, etc.*

[REBECCA: voice over] Our goals for this project include...

[SCENE/SHOT] *Lindsey and Rebecca in front of DEVELOP poster*

[LINDSEY] We are assisted in our research by our science advisor, Dr. DeWayne Cecil, and would like to thank him and our local project managers, Giovanni and Yanina Colbert, for their support and guidance.

[REBECCA] This term, we also collaborated with students at Mexico's Monterrey Tech. Now, we're going to hand it over to Mexico's Lerma River team and let Dante, Martha, and Armondo explain what they've been working on.

[SCENE/SHOT] *Tec de Monterrey Facilities*

[MARTHA] Hello. We are the Lerma River Team at Tecnologico de Monterrey in Mexico.

[SCENE/SHOT] *Martha, Dante, and Armondo together in Mexico*

[MARTHA] Mexico is currently facing inefficiency in its irrigation systems. The current systems provoke the dissolution of pollutants from the soil, which are transported to the River and other water bodies.

[DANTE] Our objective is to correlate agricultural activities in the states of interest with the pollution levels in the Lerma River.

[ARMONDO] We have been working on statistics regarding water management for agricultural purposes with the aim of comparing the total crop production with the water demand to obtain a water usage efficiency factor for the study region.

[SCENE/SHOT] *Lindsey and Rebecca in front of DEVELOP poster*

[REBECCA] Thanks guys!

[LINDSEY] Meanwhile, here in Wise, we've been researching agricultural trends, such as which crops are more prevalent and how irrigation has changed the land. Increased agricultural activity and runoff from impractical irrigation practices are main contributors to the increase of harmful pollutants in Lake Chapala and the Lerma River. In recent years, there has been a very noticeable decrease in the production of beans, green chile peppers, and red tomatoes. It is believed that this change could be associated with a loss in usable water for irrigation.

[REBECCA] We've also observed a rise in population in the area. Certain regions in our study area have experienced an increase in urbanization, which can contribute to overuse of water and unsanitary conditions.