LRG Watershed Tour November 19, 2010

Hosted by the 319(h) Clean Water Committee / Paso del Norte Watershed Council

The goal of the watershed tour was to bring together a group of water quality stakeholders to discuss the process of creating a collaborative watershed based plan to address water quality impairments in the lower Rio Grande. The group visited sites along the river and discussed problems associated with nonpoint source pollution in the Rio Grande below Caballo Reservoir downstream to the International Boundary with Mexico.

The morning began at Radium Springs, NM with a presentation given by Chris Canavan (NM Environment Dept.) and Hilary Brinegar



(NM Dept. of Agriculture). This included a general description of the Paso del Norte watershed and nonpoint source (bacterial) pollution in the Rio Grande. Also, a description of the process of developing a watershed plan that will identify causes and sources of pollutants and how this leads to recommending practical measures to mitigation. This led to some good discussions concerning the nature of bacterial pollution including what the "natural" or "background" levels in the river may be, as well as how *Escherichia coli (E. coli)* specifically differs from other pollutants. Presentations were also given by Gary Esslinger and Dr. Phil King on the Elephant Butte Irrigation District's (EBID) water quality concerns. Mr. Esslinger provided a good background on EBID and presented some of their concerns which included salinity and bacteria. Dr. King provided additional information on the *E. coli* issue, and a brief overview of some projects that address *E. coli* pollution in the watershed. Both powerpoint presentations will be available at www.pdnwc.org by the end of December 2010, as well as a short picture slideshow of the event.

The tour began by driving into Selden Canyon which provided a good backdrop to discuss the nature of bacterial pollution in a non-urban environment. The first stop included some roadside discussions on the hydrology of the river, storm water flows, flooding and potential inputs of bacteria in a rural setting.

The second stop was at Broad Canyon Ranch where New Mexico State Parks, in a cooperative effort with the U.S. Fish and Wildlife Service, the Jornada RC&D, and the Sierra Soil and Water Conservation District is implementing a restoration project to restore a portion of the Rio Grande floodplain. The site has responded well from the removal of salt cedar in conjunction with planting willows, and cottonwoods, and natural native re-vegetation. Part of the discussion at Broad Canyon included the role of such restoration in relation to the mitigation of *E. coli* pollution. While the benefits to riparian habitat are obvious, the benefits for mitigation of *E. coli* are not as clear.

The third stop was the Selden Drain Test Bed which is a pilot project implemented by EBID with partial funding from NMED's River Ecosystem Restoration Initiative to address issues of storm water management and the potential to mitigate *E. coli* by modifying the drain's hydrology. Dr. King gave an excellent presentation on the problems with flooding in the area, the overall concept of the test bed, implementation of the project, and preliminary results. The drain was widened, and a control structure was installed to regulate flow. The goal is to capture storm water, slow down the flow, and allow for mitigation of *E. coli* before it returns to the river. While there is no quantification on *E. coli* at this point, from a hydraulic standpoint and the wetland vegetation developing in the drain, it appears to be functioning as designed.

The fourth stop was a restoration site on the Rio Grande within the floodplain. Daniel Borunda with the U.S. International Boundary and Water Commission (IBWC) presented this proposed project to create a small wetland utilizing water from a drain just prior to entering the river. The concept involves diverting water from the drain through a small created wetland on the floodplain. The idea would be to remove some of the potential pollutants in the water while creating some wetland habitat. It is just one part of the IBWC's proposed restoration under their River Management Alternatives for the Rio Grande Canalization Project.

The tour ended with lunch and Peter Bennett providing a good overview of the challenges the City of Las Cruces faces dealing with storm water and Michael Montoya (NMED) discussing the limited role septic tanks may play to bacterial pollution of the Rio Grande in our watershed.

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