

Cumbre Binacional Recursos Hídricos / Binational Water Summit

MESA DE TRABAJO CALIDAD DE AGUA Y M. AMBIENTE / WATER QUALITY AND ENVIRONMENT WORKTABLE

The *Water Quality and Environment Worktable* approached the discussion centered on two main topics: assessment of water quality in streams, and the current state and impacts of preserving in-stream flows.

The assessment of water quality in streams was illustrated by three excellent presentations: a project to apply Water Quality Indices (ICA, in Spanish), particularly the one adopted by Mexico's CONAGUA, in the Río Conchos, by Sergio Saúl Solís (UACJ); groundwater quantity and quality assessment effort through digital piezometers that monitor water quality as well in the Paso del Norte Region, shared by Alfredo Granados Oliva (UACJ); and the efforts of the Texas Clean Rivers Program (CRP) along the Rio Grande presented by Leslie Grijalva.

The **MAJOR CONCLUSIONS AND RECOMMENDATIONS** on the subject of **instream water quality** include:

- The need to concurrently monitor hydrologic variables from different land uses and environments throughout the watershed
- To maintain a complete and updated census of water users and perform water mass balances in several spots throughout the watershed
- Complement water quality studies with dye trace dispersion studies to determine dispersion coefficients so to develop flow and transport models.
- Consider spatial and temporal variability of water quality measures of each site measured, as well as the differences in the sources of nutrients and pollutants
- The need to correlate groundwater quality with quantity and issues of overdraft in aquifers, as well as with surface soils and water quality
- How to jointly map aquifers in both countries and standardize spatial scales. The need for proper data warrants in-depth studies that call for substantial financial resources
- Substantial benefits may be derived from unifying stream water quality criteria and a unifying water quality indices

The issue of providing **instream flows for environmental enhancement and protecting ecosystem integrity** was emphasized in three presentations by Mark Briggs (WWF), Hudson DeYoe (UTPA), and Hector Arias (IGICH). Recommendations based on these presentations and related discussion includes:

- Greater information sharing and communication between both governments and societies on what type of river we want to see

- Issues of instream flows involve changes to sensitive habitat, impacts to the health of ecosystems, as well as narrowing of stream beds due to sediment deposit which in turn represent risks to communities along the streams and flood plains.
- The issue of instream flows requires a solid scientific base regarding environmental and ecosystem health as well as an assessment of habitat value
- Legislation in both countries must advance so to consolidate the legal standing to make environmental flows enforceable through government regulations. Proper economic valuation of benefits can become the basis for making funds available for securing in-stream flows, as well as promoting water conservation and greater efficiencies in agricultural areas and cities.

In general, there is a concern for securing funding to provide continuity to monitoring programs and for enabling a sharing of information across the basin so to prevent “institutional vulnerability” and provide security for long term water governance. There is also a need for raising awareness among the public and environmental education, especially regarding economic benefits associated with environmental values.