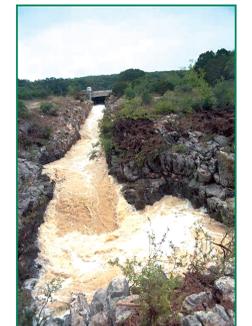


Photograph 1 (P1, looking north) shows intense fracturing of the Devils River Formation (Kdvr) in a tributary of Hondo Creek. As in most areas of the Balcones fault zone, a bimodal orientation of extensional fractures represents the resulting strain from gulfward thinning and fault block deformation of the Edwards aquifer strata. The complex network of an echelon faults and subsequent fracture patterns provide well-connected secondary porosity that enhances surface-water infiltration (aquifer recharge) and ground-water flow pathway development.



Photograph 2 (P2, looking east) highlights the primary factors driving secondary porosity/permeability enhancements (extensional fracturing and dissolution) in the Devils River Formation. The combined effect of fracturing and dissolution (karst development) of the carbonate rocks has created a triple component flow system (matrix, fracture, and karst) that is both highly productive and complex.



Photograph 3 (P3, looking east) shows the man-made channel directing surface water from Seco Creek into Woodard Cave (Valdina Farms sinkhole) after the July 2002 flood event in south-central Texas. The cave (recharge feature) is about 60 feet in diameter at the surface and extends down over 150 feet to the base of the Edwards aquifer.

