

CITY OF SANTA FE

# Restoration of the Arroyo de los Chamisos

Santa Fe, New Mexico



*Design solutions using locally available natural materials help solve urban flash flood problems.*

The Arroyo de los Chamisos emerges from the Sangre de Cristo Mountains above Santa Fe as a small ephemeral creek. As it flows through town, it collects urban drainage from the urban area, grows in size, and becomes more flashy and prone to channel and bank erosion. Further complicating matters is the fact that soils in the watershed are sandy and quite erodible. Over time, the arroyo channel has widened and eroded its banks. Buried utility lines have become exposed and paved pedestrian trails have been undercut. Nearby homes and city parks trails are threatened.

Seeking a cost-effective approach to stabilize the arroyo channel that would emphasize use of natural materials

like timbers and rock over concrete and steel structures, the City of Santa Fe turned to Biohabitats.

Biohabitats performed a field geomorphic assessment and reviewed innovative restoration techniques in use on similar streams in the region. Working with the City and the prime engineering consultant, we selected timber post vanes and boulder toe walls as cost effective methods of stabilizing the channel at the outside of meander bends. We designed boulder drop structures as grade controls.

#### SERVICES

Design  
Public Outreach

*conservation planning  
ecological restoration  
regenerative design*



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