

# Galisteo Creek Phase 2

Galisteo, New Mexico



*A restored reach of Galisteo Creek serves as a natural riparian preserve for the enjoyment of all residents.*



*from top: Post vane structure with willow plantings; Historic "El Puente" wooden bridge over Galisteo Creek*

Galisteo Creek flows out of the southern Sangre de Cristo Mountains in central New Mexico. On its way to its confluence with the Rio Grande it passes through the village of Galisteo. In the late 19th century, the watershed saw a major increase in grazing by cattle, sheep, and horses, which resulted in major changes to vegetation and led to the formation of arroyos and gullies over wide areas. Geomorphically, the trend has been toward channel incision. In terms of vegetation, invasive species like Russian olives and salt cedar have crowded the native cottonwoods in the flood plains of Galisteo Creek. The Galisteo Community Association (GCA) has taken an active role in preserving, restoring, and enhancing the

common areas which include the floodplain and channel of Galisteo Creek through the village. Through the cooperative efforts of 14 different landowners, the GCA created a riparian preserve accessible to all.

For the first phase of the project, Biohabitats surveyed and mapped vegetation communities along a one-mile reach of the creek which flowed through the village. Using the survey data and field inspections, Biohabitats prepared a detailed fluvial geomorphic assessment of the reach and a technical drainage assessment for the work to allow permitting by Santa Fe County. Local restoration contractors removed invasive trees and planted natives along a portion of the reach in 2015.

When the GCA received funding to complete the second phase of the project, they again turned to Biohabitats. This second phase of the project involved removing invasive species,

restoring sections of channel that had been impacted by incision and bank erosion, and breaching an earthen berm which had adversely affected adjacent wetlands. Biohabitats prepared engineering designs for the channel work and for breaching the old berm. The County required comprehensive flood modeling using HEC-RAS. The designed structures include regionally appropriate bioengineered post vanes, post and wattle grade controls, and revegetation of all disturbed areas with native grasses, willows, and cottonwoods. To deal with the challenge of disposing of soil generated by breaching the old berm while preserving the adjacent wetland, Biohabitats design calls for use of the material as fill to cover abandoned car bodies left on the edge of the floodplain.

## SERVICES

Design  
Permitting  
Construction Management

conservation planning  
ecological restoration  
regenerative design



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