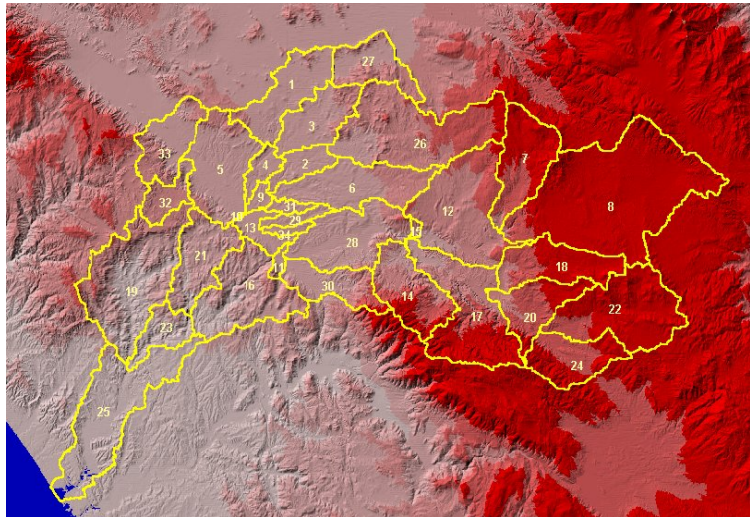




IDIQ for Los Angeles District Corps of Engineers

During this IDIQ contract for hydrology and hydraulics with the Los Angeles District WEST completed multiple work orders. A spillway inundation study was conducted for Carbon Canyon using HEC-RAS. A two-dimensional link node model was applied to Mission Creek in Santa Barbara to evaluate flooding. In the Santa Margarita River watershed study HEC-1, HEC-2, HEC-RAS and HEC-6 were used to evaluate flooding and sedimentation problems in the river. Extensive use was made of a Geographic Information System (GIS) to prepare meteorological and land use data for hydrologic modeling. GIS was also used with digital terrain information to develop cross sections for the hydraulic model and to aid in floodplain delineation. A sediment yield analysis was completed for the entire watershed, also involving the use of GIS.



Two channel restoration and environmental enhancement plans were developed in Phoenix for the Tres Rios and Rio Salado projects. Tres Rios involved HEC-2 and HEC-6 modeling for baseline and future without project floodplain delineations. Rio Salado had both HEC-RAS and HEC-6 models developed for low-flow channel design for the Salt River. HEC-6T sediment transport modeling was conducted to: 1) evaluate grade-control structure locations; 2) estimate impacts of the 25-, 50-, and 100-year discharge events on channel stability; and 3) determine average annual excavation volumes required for maintenance of the low flow channel.

A flood map revision study was conducted and a levee analysis report prepared for the Los Angeles River and Compton Creek. During this study numerous HEC-2 models were modified to reflect levee system changes made by the Los Angeles District. Overbank models were also modified to analyze split flow conditions. The purpose of the study was to revise the 100-year water surface elevations and 100-year floodplain limits based on updated hydrology and recent improvements to the channel, levees, and bridge crossings in the Los Angeles River, Compton Creek, and Rio Hondo Diversion Channel. Over 20 miles of constructed channel were analyzed. Map revisions affected 14 different communities in Los Angeles County.



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