

RECONSTRUCTING FORMER LEVEE AND BACKCHANNEL LANDSCAPES IN URBAN SETTINGS

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Non-invasive and minimally invasive field methods were employed to reconstruct the former landscape within a heavily modified urban setting in downtown Sacramento, California. This was achieved using several datasets, including coarse-grained near-surface measurements of apparent conductivity and magnetic susceptibility, vertical profiles of fine-grained electrical conductivity, CPT soundings, and direct-push bore samples. Interpretations relied upon sequence stratigraphic analysis, grouping together related strata into Landform Sediment Assemblages providing environmental context, delineated primarily on stratal stacking patterns. Correlations between stratal sequences were made using observations of lateral continuities and key markers within specific sequences. In this manner, a three-dimensional working model of the project area was conceptualized. Cross sections suggest a shallow channel ran through the project area bordered by two pronounced natural levee deposits believed to represent consecutive back-to-back flood events in the 1860s. This work was conducted to assess the suitability of remnant landforms to host archaeological deposits possibly impacted by planned development.