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FIELD MONITORING AND ANALYSIS

ENGINEERING RESEARCH CENTER
FORT COLLINS, COLORADO
Colorado State University has a full time, experienced staff engaged in analysis and monitoring of field conditions. Projects range in scope and complexity from a one-time site specific analysis to multi-year watershed monitoring and evaluation. CSU has the personnel and equipment to collect field data including: site surveys, sediment samples, flow velocity and depth measurements and qualitative field analysis. Field data can then be processed and evaluated to determine hydraulic, geometric or sedimentary parameters of interest. CSU also has experienced staff in Environmental Hydraulics and Fluvial Geomorphology. Picture below are examples of personnel assessing bank stability, collecting geometric data and sediment samples from various sites in the field.

Field data can be analyzed by a variety methods including use as input to numerical hydraulic models. Numerical hydraulic models can be used to compute hydraulic forces or quantities of interest or estimate sediment transport. CSU utilizes HEC-2, HEC-RAS, HEC-6, WMS, SMS and SAM to determine hydraulic and sediment transport parameters.

The synthesis of laboratory data, field data and numerical modeling provides the most comprehensive evaluation of any hydraulic or sedimentation scenario. CSU has faculty and staff to conduct all three elements of the research effort. Using a combination of field data and numerical modeling, CSU provides a sound approach utilizing state-of-the-art tools.