



United States Department of Agriculture
Natural Resources Conservation Service

National Water Management Center

Website: <http://wmc.ar.nrcs.usda.gov/>
Keith Admire, Director

STREAM GEOMORPHOLOGY and RESTORATION

The stream geomorphology and restoration workgroup focuses primarily on the hydrologic and hydraulic characteristics of the effective channel forming (bankfull) discharge and the balance between the moving water and sediment loads. Timing (return interval, annual duration), quantity (peak, mean daily discharges, and mean daily loads), bankfull channel dimensions (regional curves and regime curves), channel planform, profile, stream power, geology, sediment size and distribution, along with stream classification are all evaluated. Sediment loads are associated to discharges, probabilities, stream type, land uses and land management.

Staff is available to assist with the technical aspects of applied geomorphology; stream classification, assessments, bank stabilization, and restoration efforts. Applications to NRCS programs range from CO-01 work to PL-566 watershed projects.



The group can also provide assistance and training in hydrologic and hydraulic models and regional gage analysis in order to produce quantity, timing, and probability of flow volumes for ungaged sites in similar hydro-physiographic provinces. Regional gage analysis can provide probable peak discharges, flood frequency relationships, flow duration curves, hydraulic geometry relationships, and effective sediment loads to produce sediment power functions and probable annual loads. Regional gage analysis can also be used in conjunction with calibrating hydraulic and hydrologic models or for comparison of results to other probabilistic or deterministic methods.

The staff is also available for consultation and coordination with other disciplines, review of models, and to present hydrologic and hydraulic information in a format more easily understood by those who don't have expertise in these areas.

Core Team

Hydraulic Engineers

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