



## **A Survey of the Uncertainty in Stage Discharge Rating Curves in the United States**

Julie Kiang, Timothy Cohn, and Robert Mason  
U.S. Geological Survey

The U.S. Geological Survey measures streamflow at more than 8,100 streamgages across the United States. Information on the uncertainty of streamflow records is currently limited - hydrographers make qualitative assessments of the accuracy of the streamflow records for each year based on factors including the stability and sensitivity of the hydraulic control, the range of measurements available to develop the rating curve, and whether any equipment issues were encountered during the year.

In an effort to move towards a quantitative assessment of uncertainty, this study compares a broad sampling of individual measurements of streamflow to the streamflow estimated from the rating curve across the United States. The uncertainty of the streamflow records implied by these results is highly variable across streamgages. More detailed analysis and estimation of uncertainty will be presented for select streamgages.