United States Department of the Interior
U.S. Geological Survey
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USGS Maryland-Delaware-District of Columbia Water Science Center

Seminar Series

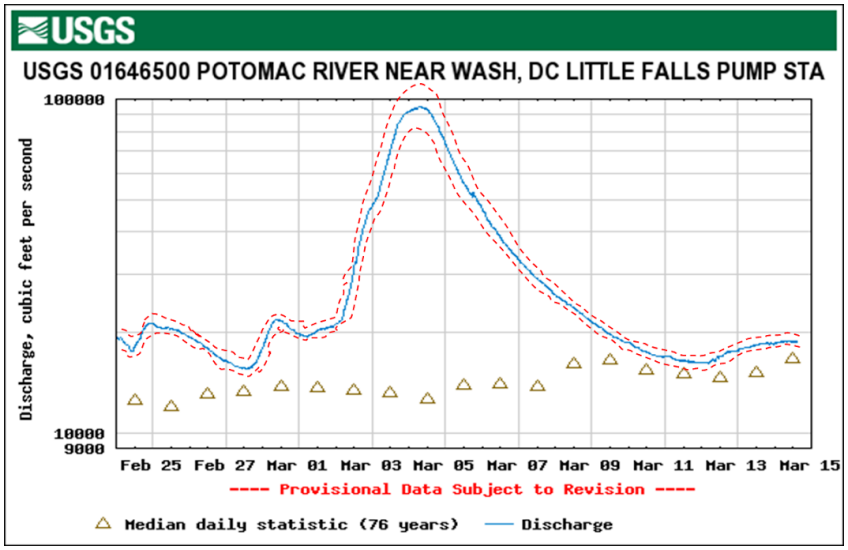
Tuesday, September 20, 2016 11:00 a.m.

Julie Kiang, U.S. Geological Survey Office of Surface Water

Quantification of Uncertainty in USGS Streamflow Information

If our databases could talk, what would they tell us about uncertainty in streamflow records? A broad sampling of individual measurements of streamflow were compared to the streamflow estimated from the stage-discharge rating curve. As implied by these results, the uncertainty in our streamflow records is highly variable across streamgages, particularly when considering the real-time uncertainty.

The uncertainty in USGS streamflow information is currently described using qualitative ratings of excellent/good/fair/poor. Quantification of the uncertainty has proven difficult, but recent progress will be reviewed in this talk. USGS has been engaged in an international experiment comparing several different proposed methods for estimating uncertainty in the stage-discharge rating curve and the time series derived from it.



Julie Kiang is a hydrologist in the Office of Surface Water, as well as the surface water lead for the Water Availability and Use Science Program. Her work at USGS has focused on statistical hydrology, applied to a wide range of topics including flood and low flow frequency, streamflow estimation at ungaged locations, and uncertainty estimation.

This presentation will also be available remotely via Webex:
https://usgs.webex.com/usgs/j.php?MTID=m21645eb303ae061de7ab0d99078239f1

For directions to the USGS MD-DE-DC WSC: http://md.water.usgs.gov/directions/baltimore.html.