

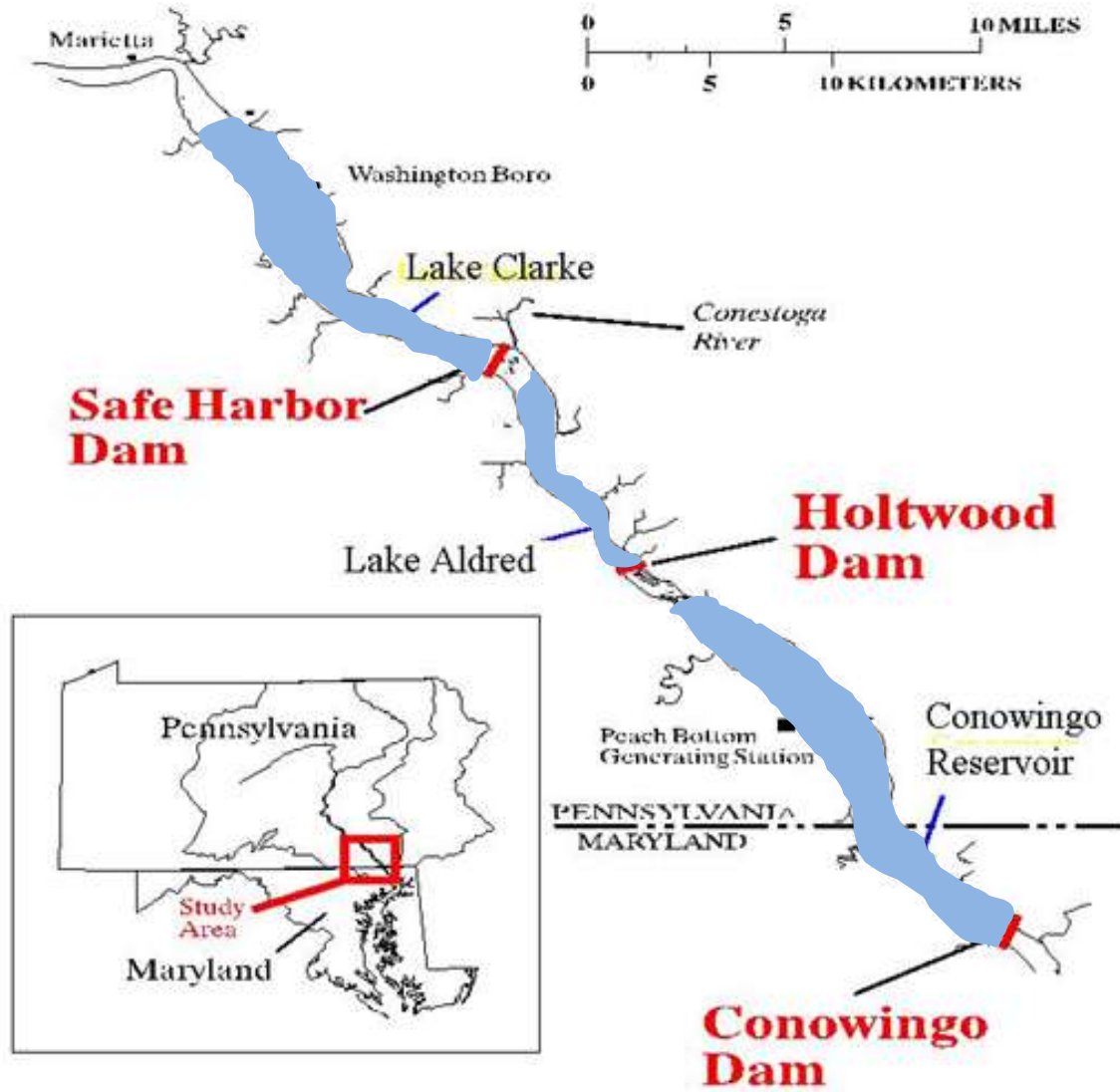
Update on the HEC-RAS Reservoir Transport Simulation

Mike Langland and Ed Koerkle
03/30/2012

Topics

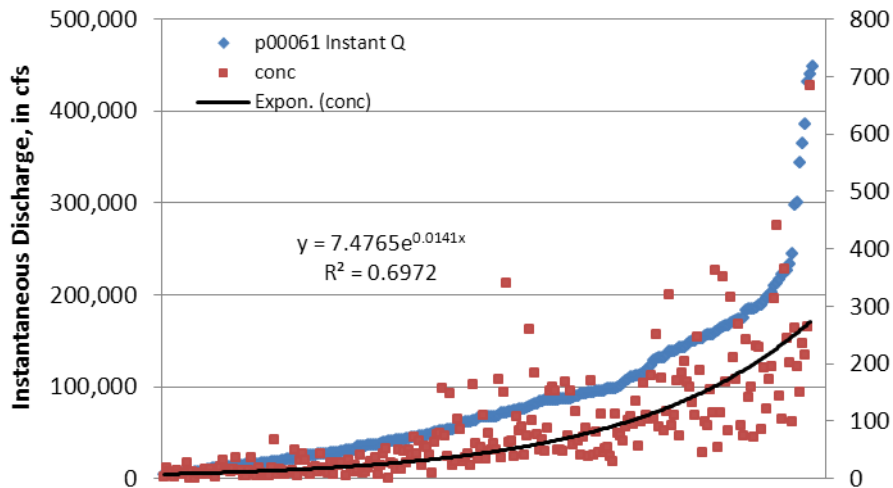
- Sediment Input Data
- Model Geometry and Hydraulics
- Model Sediment Transport

Susquehanna River Reservoirs

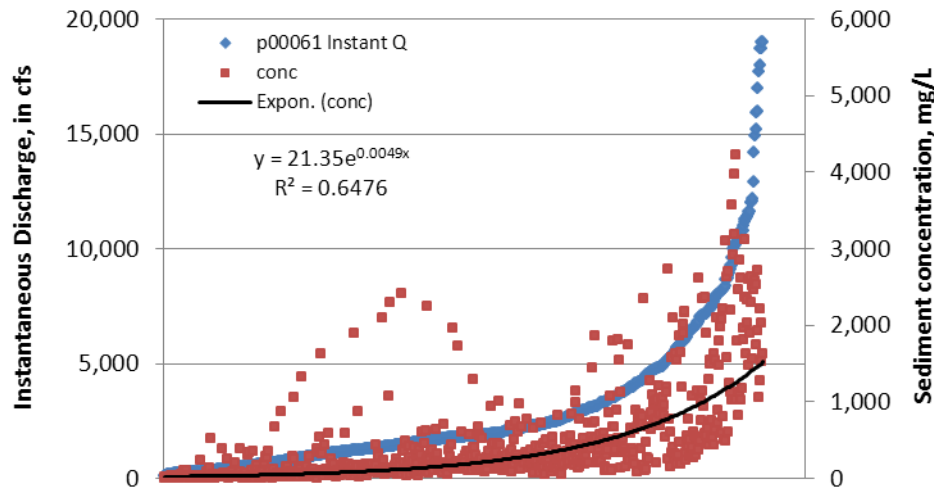


Transport Curves

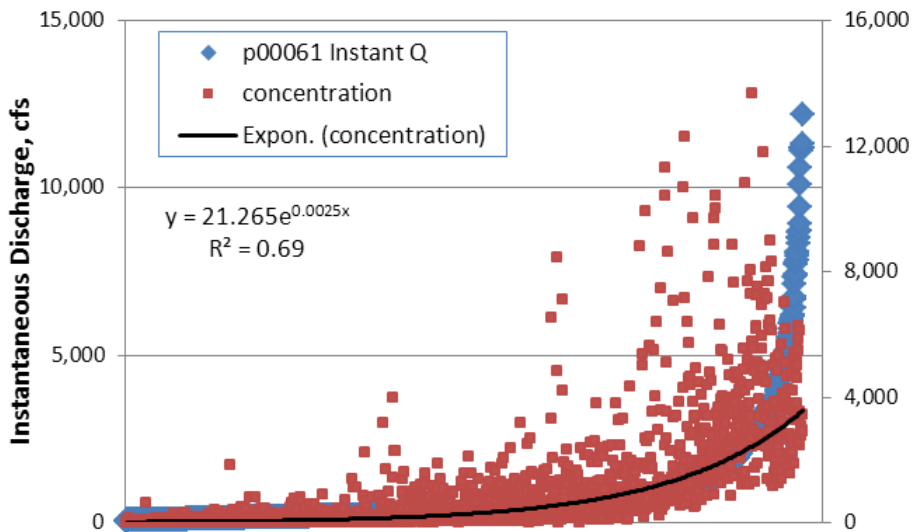
Susquehanna R at Marietta Transport Curve



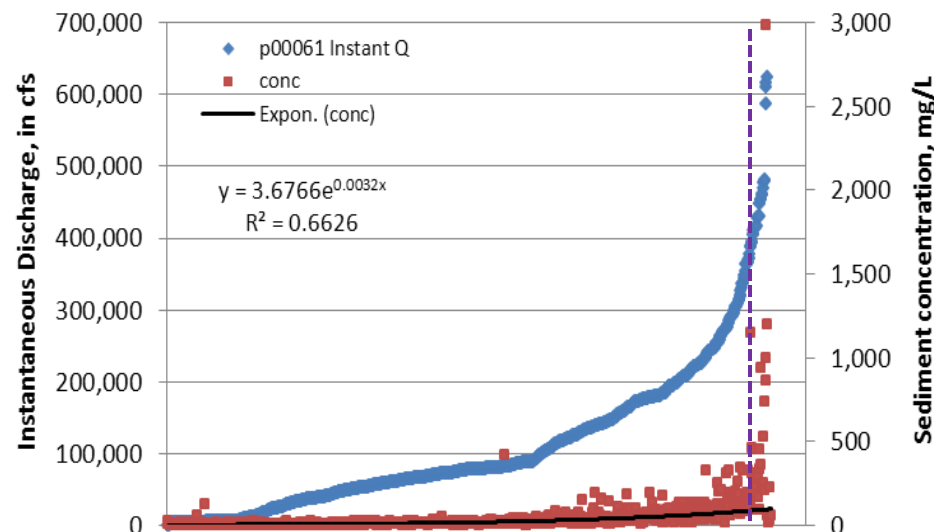
Conestoga R at Conestoga Transport Curve



Pequea Ck near Martic Forge Transport Curve



Susquehanna R at Conowingo Transport Curve

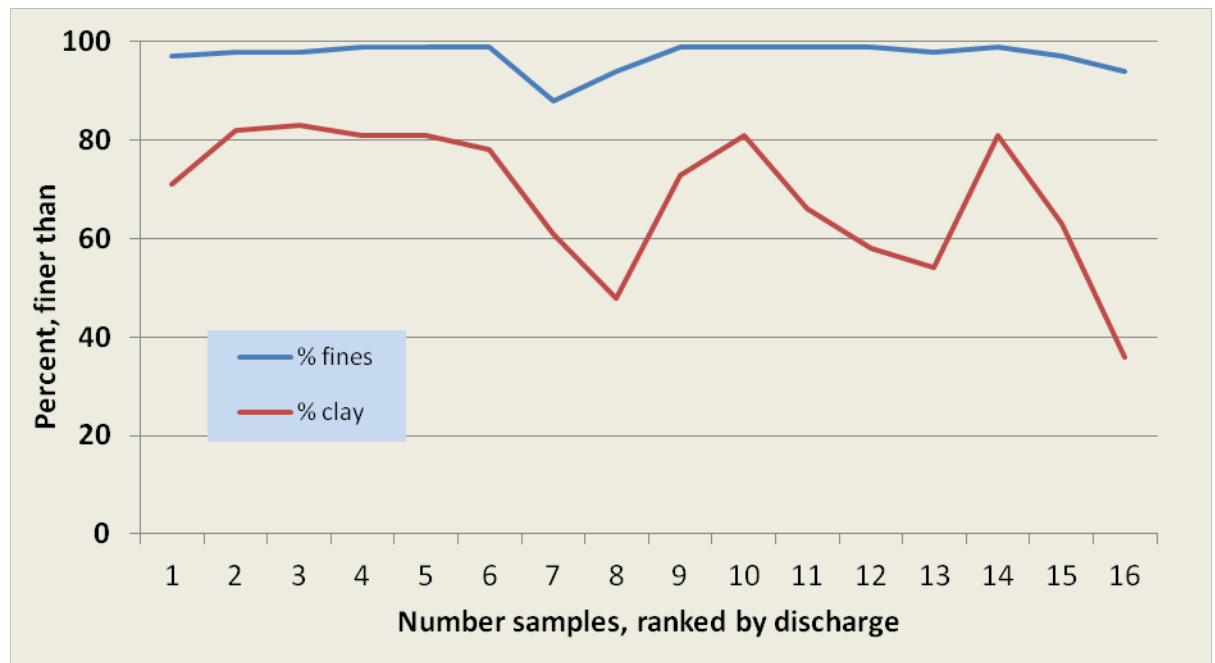
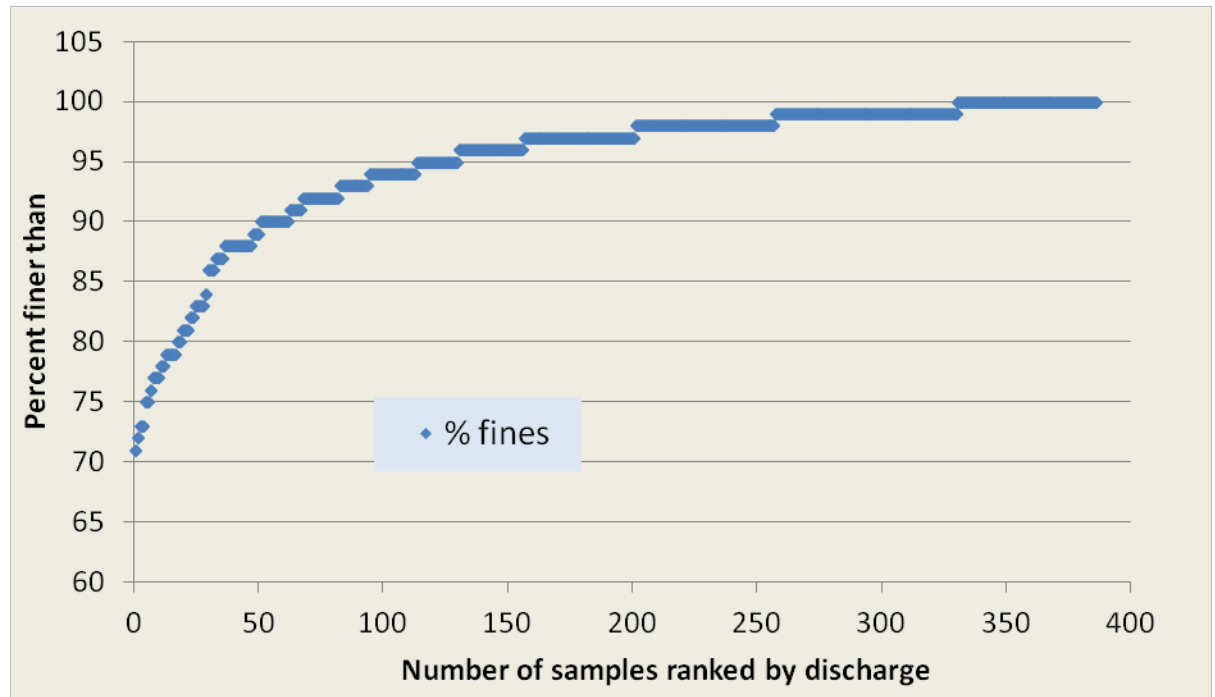


Particle Size Transport (Conowingo)

391 samples
% sand/fines

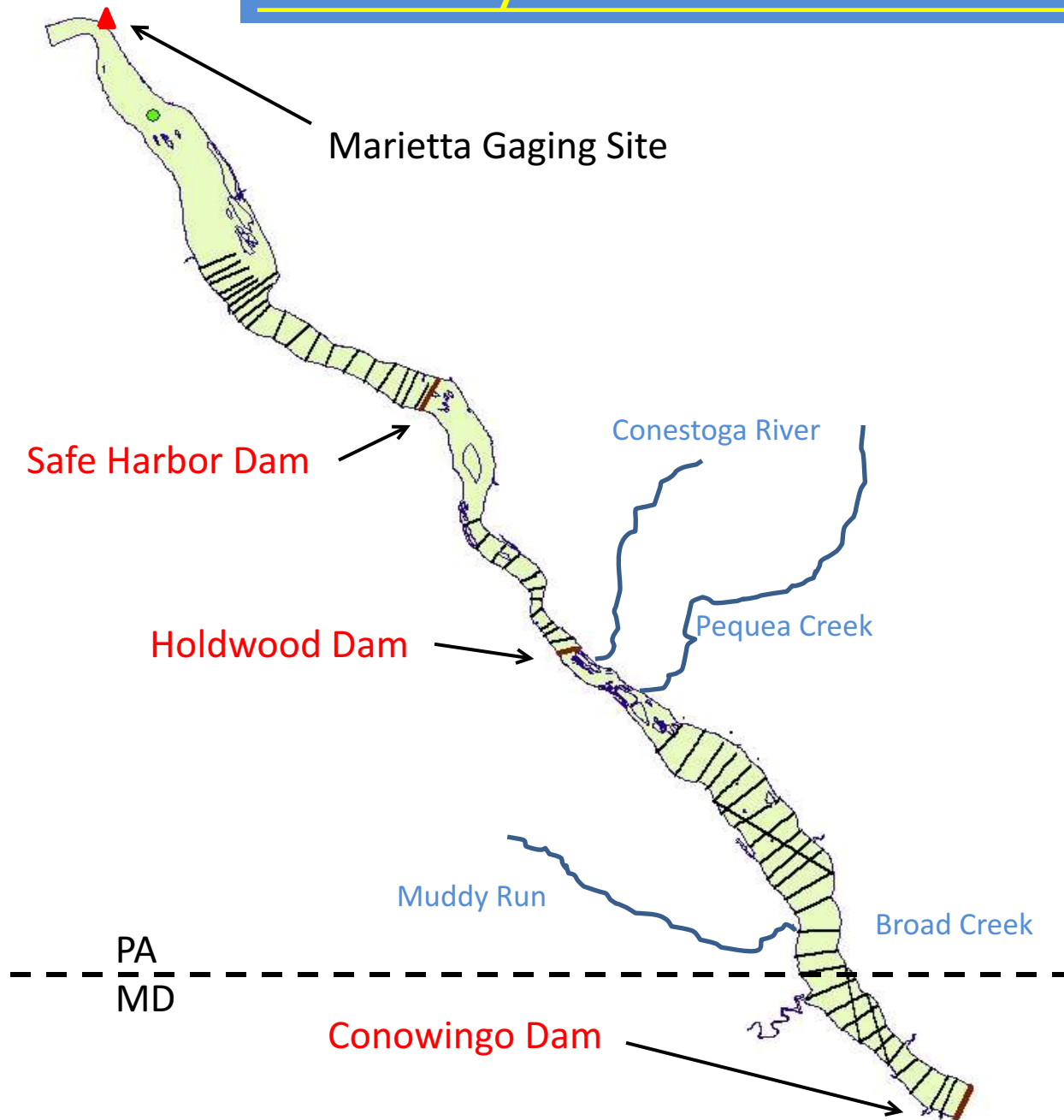
16 samples
% sand/silt/clay

Missing data ?

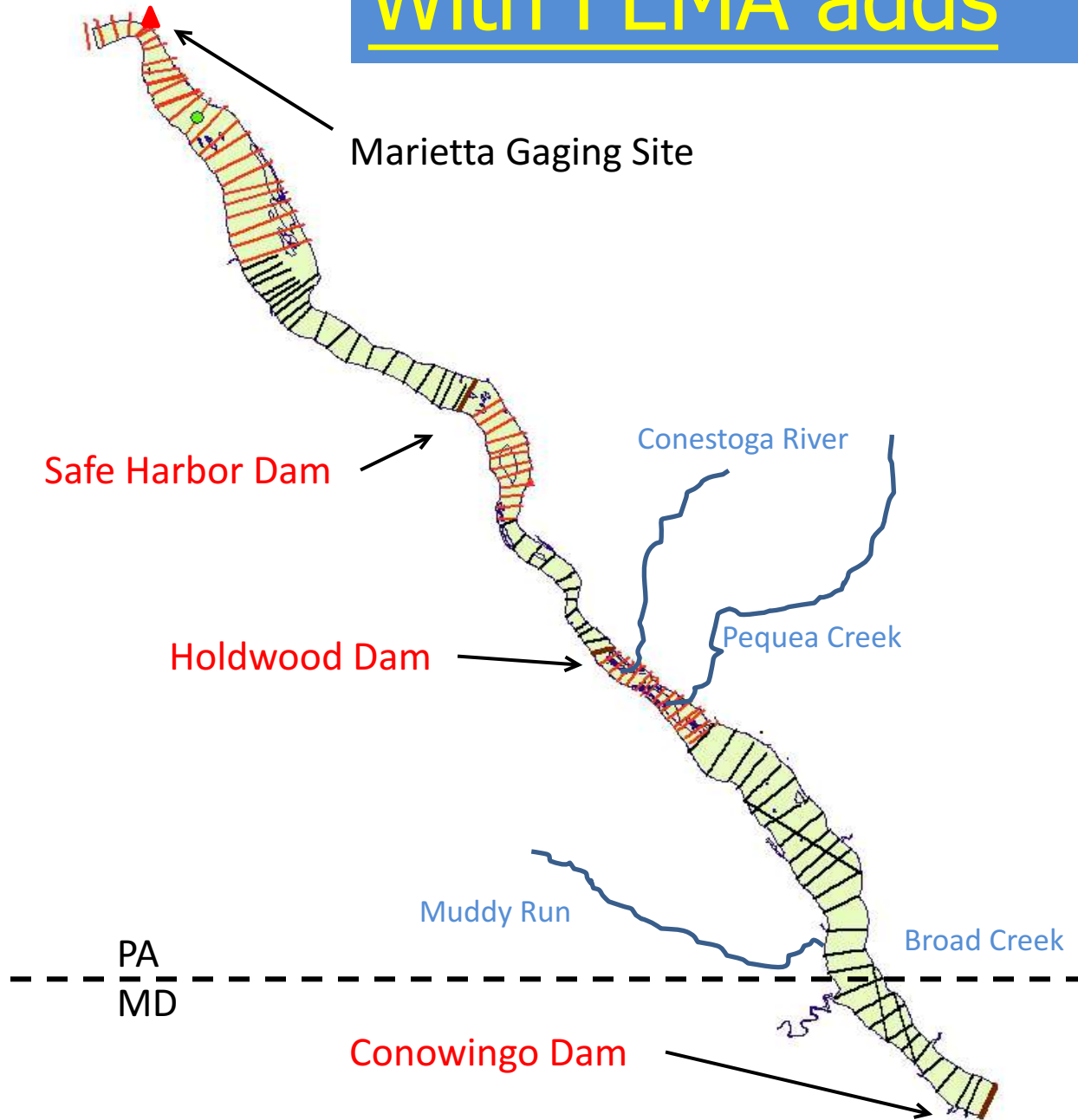


Model Geometry and Hydraulics

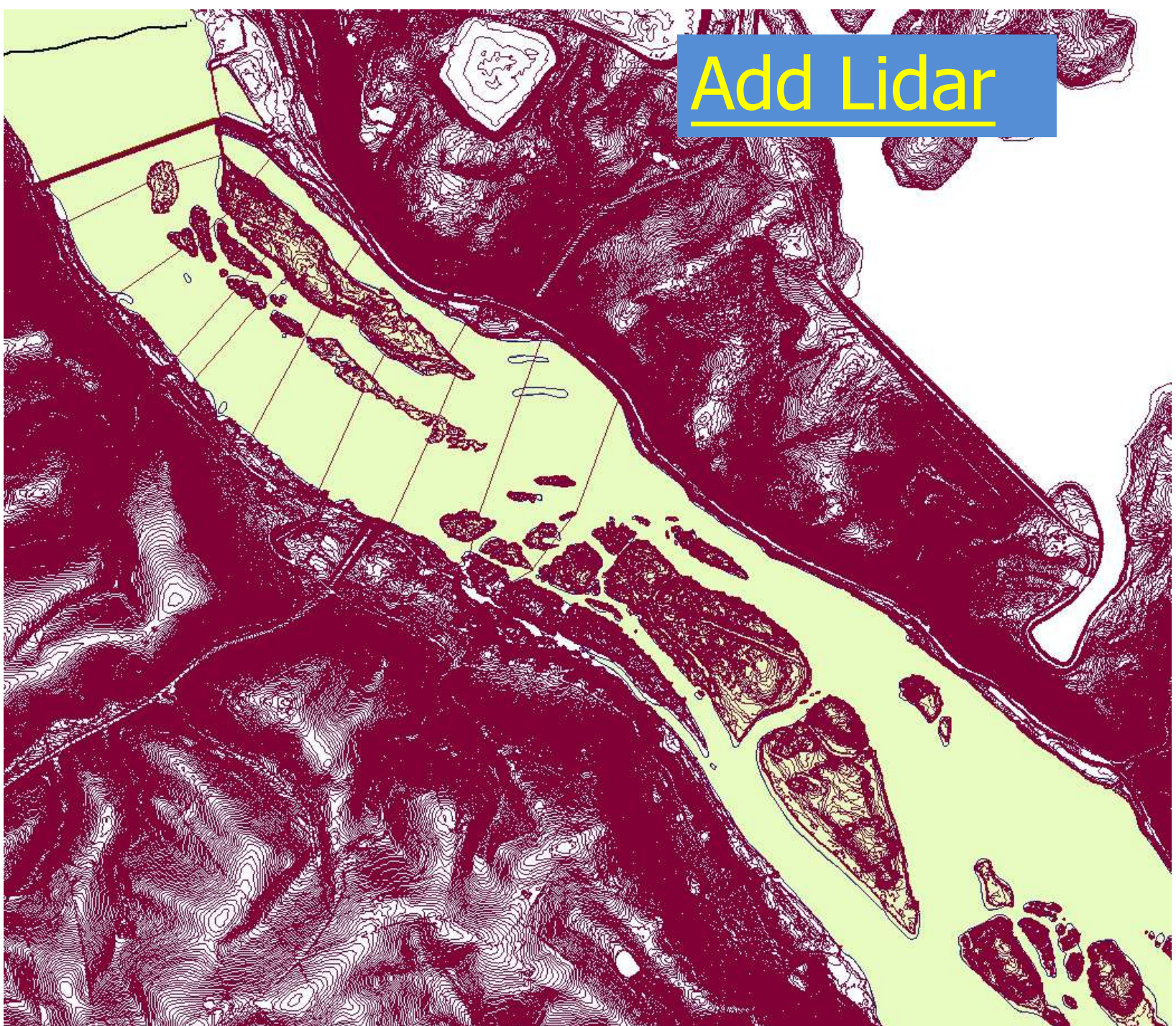
Boundary and USGS transect data



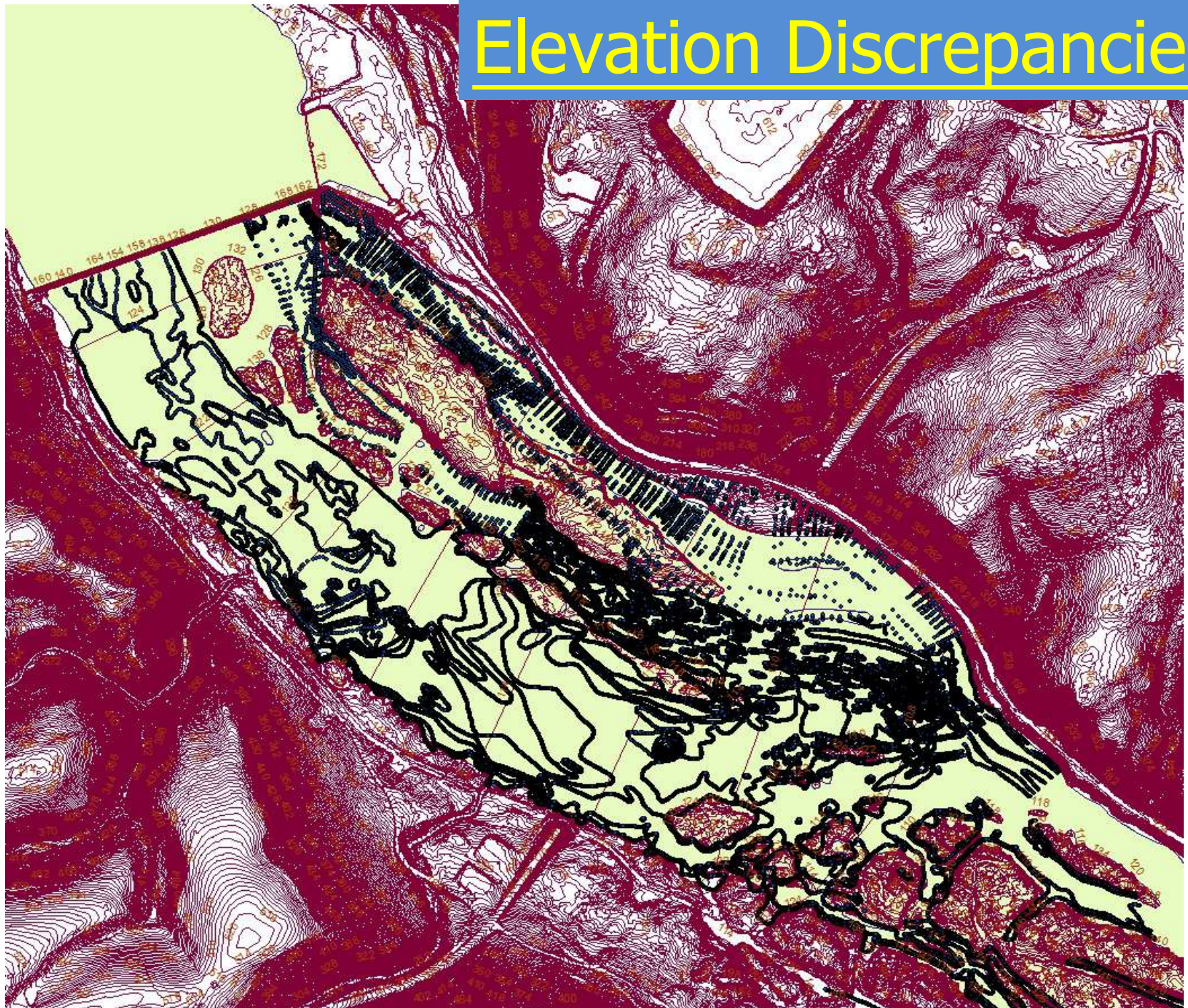
With FEMA adds



Add Lidar



Elevation Discrepancies



Sediment Transport Simulation

- Progress limited
- Calibrate one “average” flow year (no scour) and a high flow event (Sept 2011)
- Bed sediment particle size distribution and shear stress

Summary

- Model Geometry and Hydraulics nearly complete
- Issue with GeoRAS resolved (max # of transect points)
- On schedule to have HEC-RAS model completed by June, 2012.