RIVER AND ESTUARINE ENGINEERING

Keith Flowers, P.E. Chief, River and Estuarine Engineering Branch Coastal and Hydraulics Lab, ERDC 15 April 2019











 To deliver solutions to our Nation's most challenging water resources problems through research, development and application of cuttingedge science, engineering and technology.











- 32 Total
 - 2 Rehired Annuitants
 - 2 Remote Employees
 - 26 E&S
- Education Level
 - 8 Ph.D.'s (31%)
 - 13 M.S. (50%)
 - 4 Ph.D.'s in progress
 - 5 M.S. in progress













- Hydraulic Modeling
- Sediment Transport Modeling
- Physical Model Studies
- Measurement Techniques
- Geomorphic Assessments
- R&D





SEDIMENT TRANSPORT MODELING







PHYSICAL MODEL STUDIES



Santa Ana Physical Model







PHYSICAL MODEL STUDIES



Improved Ribbon Bridge





BEDLOAD TRANSPORT MEASUREMENT





Integrated Section Surface Difference Over Time (ISSDOTv2)





GEOMORPHIC ASSESSMENTS



Mississippi River Geomorphology and Potamology Program







GEOMORPHIC ASSESSMENTS



Brazos River





POST WILDFIRE R&D







NEEDS/RECRUITING



- Interns
- Full-Time
- Lab Growth
- More Aggressive Recruiting Strategy
- Skills
 - H&H Modeling
 - Coding
 - GIS
 - Technical Writing
 - Effective Communication







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U.S. Army Engineer Research and Development Center



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Innovative solutions for a safer, better world