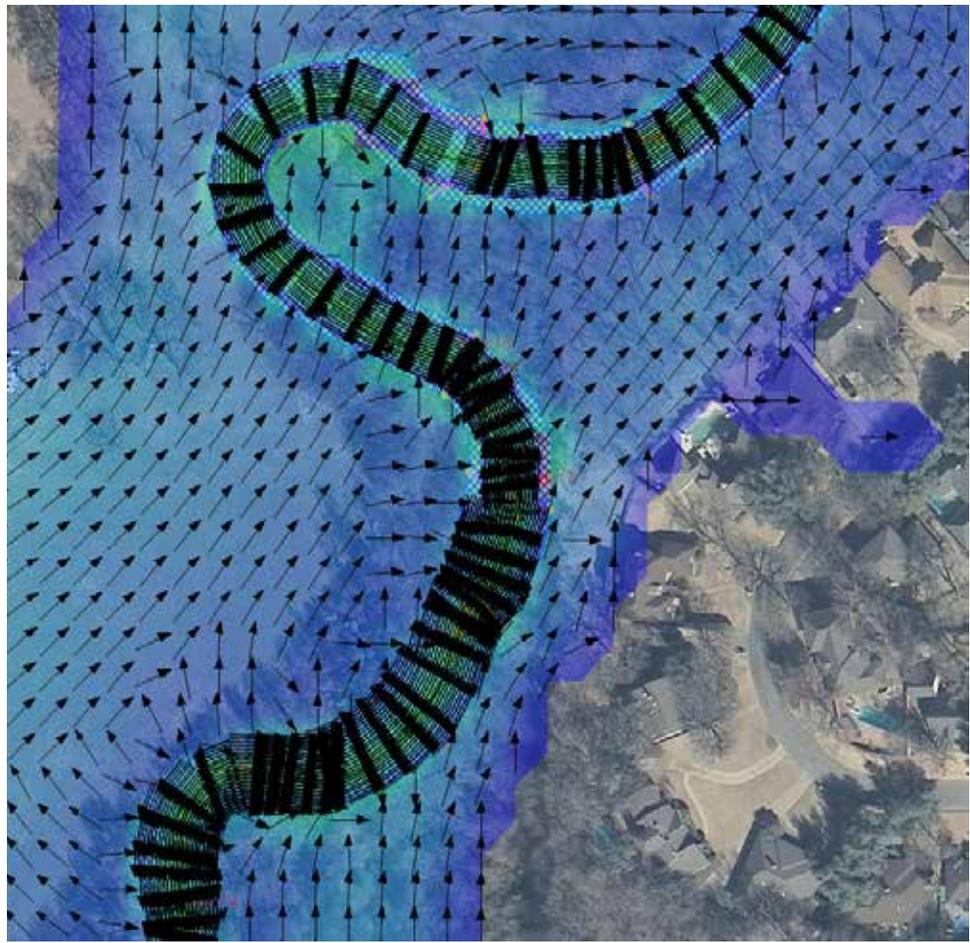


Hydrologic & Hydraulic Engineering



FEMA National Flood Insurance Program

We have provided hydrologic and hydraulic modeling and technical review services for FEMA's National Flood Insurance Program for more than 30 years. Under this program and following completion of the Greater New Orleans Hurricane and Storm Damage Risk Reduction System (HSDRRS) in Louisiana managed by the USACE, we performed hydraulic studies to identify flood risks associated with interior drainage.



We are dedicated to understanding and applying proven methodologies and technologies in support of our clients' goals.

As one of the largest water resources groups in the country, we bring a national perspective and depth of expertise that is unique to the industry. Our staff lead projects of critical national

importance for a diverse array of government agencies. We excel in providing innovative tools and approaches on projects that result in value-added services to our clients.



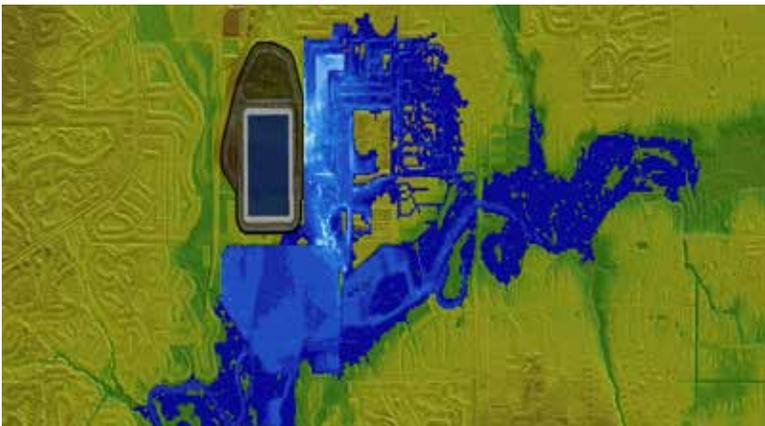
With a staff of more than 200 engineers dedicated to water resources engineering, we have one of the largest groups of its kind in the U.S. We have diverse hydrologic and hydraulic modeling experience and in the application of cutting-edge technologies. We seamlessly integrate multiple engineering and GIS applications to provide our clients with greater quality and value.

We offer highly specialized water expertise backed by the deep resources and stability of a national firm.



Hydrology and Hydraulics for Dam Safety

We have completed numerous hydrologic and hydraulic dam safety studies including 1-D and 2-D dam break models, probable maximum flood analyses, spillway assessments, and inundation mapping. We have also assisted in the development of federal guidance pertaining to dams and mapping.



Central Valley Floodplain Evaluation and Delineation, CA

We have developed complex hydraulic models using unsteady-state HEC-RAS in the San Joaquin watershed of the central valley of California. Parallel to the HEC-RAS effort, we have developed FLO-2D models of shallow overland flooding behind levees for comparison and calibration purposes.



Our Services

- 1-D & 2-D hydrologic & hydraulic modeling
- Alluvial fan modeling
- Bridge hydraulics & scour
- Closed-system & combined-sewer modeling
- Coastal modeling
- Dam break modeling
- Flood forecasting
- Hydro-meteorological modeling & analysis
- Levee modeling & analysis
- Reservoir simulation
- Real-time hydrologic & hydraulic modeling
- Sediment transport modeling
- Steady & unsteady state modeling
- Water quality modeling

Representative Clients

- City of Arlington, TX
- California Department of Water Resources
- Colorado Water Conservation Board
- Federal Emergency Management Agency
- Flood Control District of Maricopa County, AZ
- Florida Water Management Districts
- Georgia Department of Natural Resources
- Iowa Department of Natural Resources
- Louisiana Office of Coastal Protection and Restoration
- New York City Department of Environmental Protection
- North Carolina Floodplain Management Program
- Pennsylvania Department of Transportation
- Southern California Edison Hydropower
- U.S. Army Corps of Engineers

Committed Professionals
Thought Leaders
Client Advocates



WaterResources@dewberry.com

Dewberry is a leading, market-facing firm with a proven history of providing professional services to a wide variety of public- and private-sector clients. We offer highly specialized subject matter expertise backed by the deep resources and stability of a national firm.