

# ***Nancy Gambill - Environmental Engineer***

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## ***Summary***

Ms. Gambill is an engineer with GBMc & Associates, Inc. She has over 7 years experience in hydrologic and hydraulic modeling for FEMA flood insurance studies (FIS), Corps of Engineers projects, municipal storm water drainage plans, and road design. Hydraulic modeling for road design includes floodplain analysis to determine bridge or culvert opening. Hydraulic modeling for FEMA FIS includes determination of floodplain and floodway. Hydraulic and hydrologic modeling experience for the Corps of Engineers includes watershed hydrologic modeling as well as hydraulic modeling of proposed irrigation systems. Ms. Gambill also has experience with Arkansas Department of Health rules and regulations about septic systems. Ms. Gambill has experience with water quality modeling as well as sampling.

## ***Education***

1999 B.S., Civil Engineering, University of Arkansas  
1994 B.S., Biology, University of Arkansas

## ***Experience***

Ms. Gambill has worked on municipal storm water drainage plans using hydrologic and hydraulic modeling and developed capital improvement plan for drainage improvements. She is experienced in using HEC-RAS to assure adequate size of bridges and culverts as well as floodplain and floodway impacts for proposed road alignments. Ms. Gambill has worked on FEMA FIS using HEC-GeoRAS, HEC-RAS, and GIS for mapping. She is experienced in the use of USGS regression methods for hydrology as well as HEC-1 and HEC-HMS models. HEC-RAS was also used to model proposed irrigation and flood control projects in Arkansas for the Corps of Engineers. In addition to use of hydrologic and hydraulic models, Ms. Gambill has used LA-Qual to develop TMDLs for streams in Louisiana. She has also developed frequency duration curves for use in water quality projects as well as determining frequency of probable flooding of sites.

Ms. Gambill has attended training courses held by the City of Hot Springs and Arkansas Department of Environmental Quality (ADEQ) on storm water pollution prevention and ADEQ's regulations for Municipally Separate Storm Sewer System (MS4) Program. Ms. Gambill has also attended ADEQ sessions on construction site Storm Water Pollution Prevention Plans. She has completed an internal training course on selection, design and proper installation of erosion and sediment controls based on the California Department of Transportation document, *Construction Site Best Management Practices Manual - March 2003*

Ms. Gambill has experience with field data collection activities. She has used water monitoring equipment including flow meters, pH meters, dissolved oxygen meters, temperature meters, and conductivity meters.

Ms Gambill also has experience with sampling of drinking water wells.

While working for Arkansas Department of Health (ADH), Ms. Gambill checked septic system design and installation for compliance with ADH regulations, tested swimming pools and spa facilities for chemical balance and compliance with ADH regulations, and inspected restaurants and grocery stores, assuring food storage and handling was sanitary.

## ***Professional Affiliations and Licenses***

Arkansas Registered Professional Engineer No. 11631  
American Society of Civil Engineers (ASCE)  
Arkansas Floodplain Management Association (AFMA)

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