FENSTERMAKER

Client Focused. Technology Driven.

Water Resources

From coastal regions to inland waterways,
our skilled engineering team uses sound principles
to produce viable solutions for critical water resource projects.
By studying a region's hydrologic and ecologic features,
as well as its social, cultural and economic characteristics,
Fenstermaker offers practical experience and innovation
for projects that will stand the test of time.

ENGINEERING

Numerical Modeling
Compartment Modeling for the Louisiana Coastal Master Plan 2012/2017
Coastal Ecohydrology Simulation using Berkeley Madonna
Hurricane Protection Systems in Coastal Areas
HEC-RAS Unsteady Flow Circulation, Sediment & Encroachment Models
1D/2D Coupled Salinity and Tide Simulations in Estuaries
Structured and Unstructured Mesh Generation for Near Field Flow Simulations
What if? Scenarios for Coastal Restoration
Population Balance Modeling in Biology & Aquatic Ecology
Computational Fluid Dynamics
Numerical Scheme Customization & Model Stability Analysis
Model Calibration and Validation against Field Measurements

Flood Risk Management
Flash Flood Risk Assessments
Flood Hazard Delineation for Rural & Urban Areas
Large-Scale Mapping, Presentation & Interpretation of Results

Drainage Design, Review & Improvements
Local & Regional Culvert Design
Roadway Hydraulic Improvements & Design
Municipal/City Engineering and Master Planning
General Development Review
Funding Acquisition & Landowner Coordination for Small & Large Projects
Minor Road Plan & Profile Design for Construction

FEMA Consultations
FEMA Map Review & Interpretation
FEMA Regulations , Drainage Ordinance Administration & Compliance
Permitting & Design of Projects Located in the Flood Zone
No Rise and Construction Elevation Certificates
Flood Proofing Certificates and Structural Buoyancy Calculations
No Adverse Impact Analysis & Professional Certifications
Floodplain Development Permits
Letter of Map Revision (LOMR/CLOMR), FEMA Coordination & Physical Map Revisions (PMR's)
Web Mapping Applications

Field Data Collection
Continuous Water Level, Salinity & Turbidity Monitoring in Riverine & Coastal Environments
Hydro-Meteorological Measurements along the LA Coast
High Water Mark Inventory & GIS Map Processing
Frequency Analysis of Historical Flow & Stage Measurements
Data Processing & Quality Assurance/Outlier Removal
Station Setup, Deployment, Data Collection Coordination & Surveying

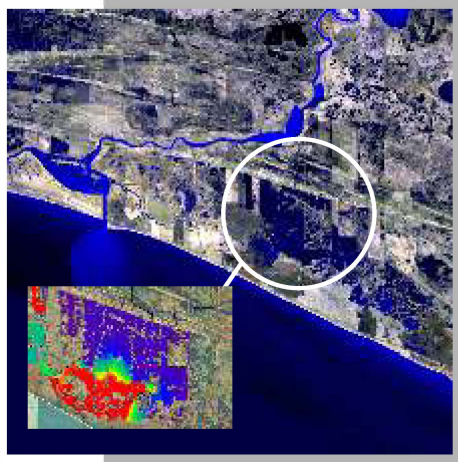
Programming & Task Automation
C++, Fortran, Python, Matlab, Scilab and VB Applications
Radar-Rainfall Time Series Generation & Analysis
LiDAR Elevation Data Processing & Grid Creation
Hydraulic Modeling Software Compatibility Programming
Fusion between Vector Data & Model Output Tables to Create Visualization Layers

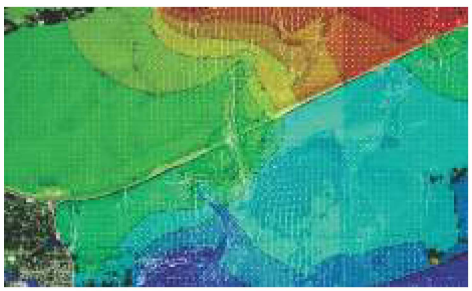
Design Software
HEC-RAS and HEC-HMS
ArcGIS, HEC-GeoHMS, HEC-GeoRAS
MIKE by DHI
Berkeley Madonna
Meshlab, TecPlot & Paraview
LA DOTD HYDRWIN
Microstation Site Modeler
AutoCAD Civil3D

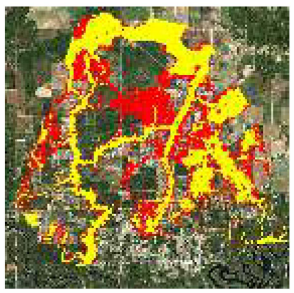
SURVEYING & ENVIRONMENTAL
USACE Wetlands Permitting
Underwater Bathymetric Surveys
Drainage Topographic Surveying
Oyster Assessments

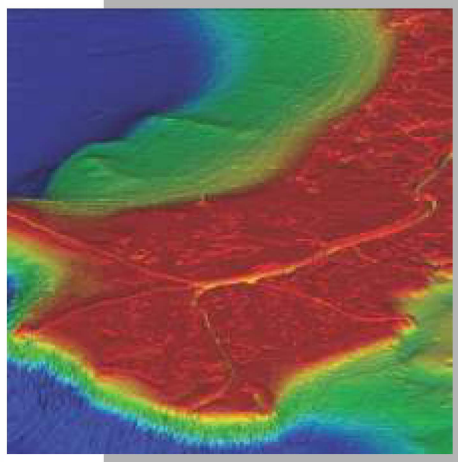
Since 1950, C. H. Fenstermaker & Associates, L.L.C. has provided professional services with a dedication to the success of our clients. A focus on safety and a commitment to quality work are paramount to the way we do business.

Fenstermaker has offices and field operations throughout the country to better serve our clients. Our services are based on client needs and the requirements of the states in which we operate.







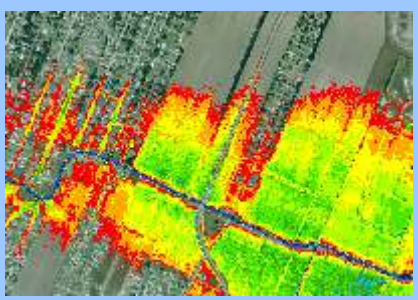


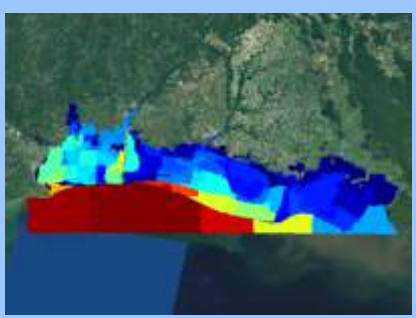
For more information about our Water Resources services, contact:

FENSTERMAKER

Call 337.237.2200
or visit our website at
www.fenstermaker.com

C. H. Fenstermaker & Associates, L.L.C.





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Louisiana Firm Registration No. VF. 0000154.
Texas Firm Registration No. 10028500.

Call 337.237.2200
or visit our website at
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