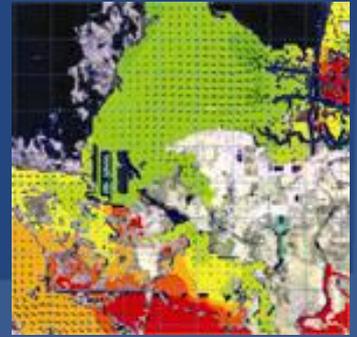




ECM



Experience · Innovation · Results

CALCASIEU PARISH – WARD 1 STORM WATER MASTER PLANNING



Project Team

- C.H. Fenstermaker and Associates, Inc. and ECM Consultants have been contracted by the Calcasieu Parish Police Jury to complete a Storm Water Master Plan to address the flooding issues in Ward 1.



Project Objectives

- The main objective of the Storm Water Master Plan project is to complete hydrologic and hydraulic models in order to better understand the drainage system and evaluate potential projects to reduce flooding.
- Using the model results, a Storm Water Master Plan will be developed to identify any channel cleaning needed, assess structure capacities, develop a maintenance plan, and to determine the impact of any future developments.



Project Schedule and Tasks

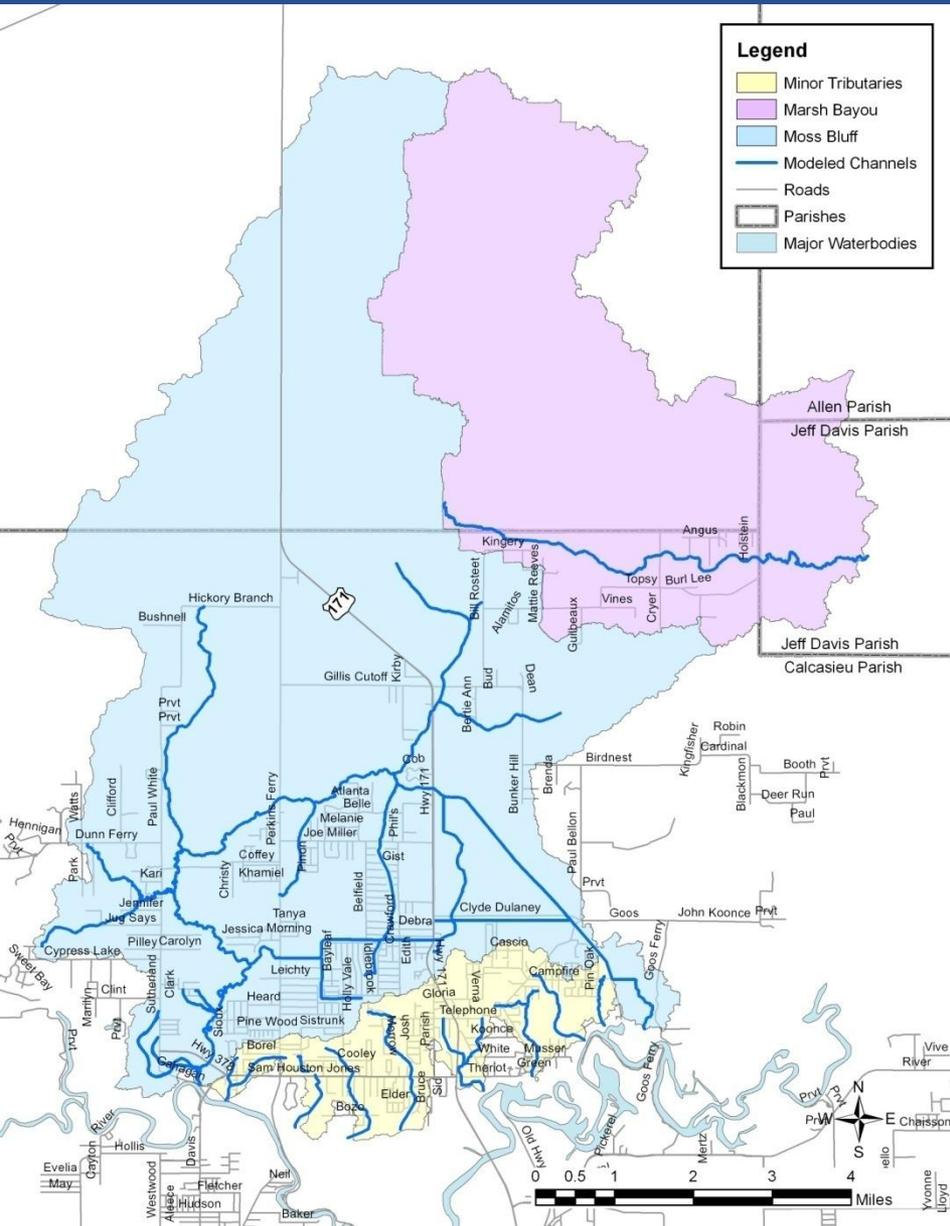
- Fenstermaker began work on this project in February, 2008 and plans to be complete by March, 2009.
- Fenstermaker is performing the following tasks for the completion of this project:
 - Gathering and compiling existing geospatial data, hydrologic and climatic data, environmental data, and socioeconomic data.
 - Topographic and bathymetric surveys on all modeled channels and structures.
 - Setup, calibration, and validation of hydrologic and hydraulic models.
 - Setup of a GIS database of maps and layers pertaining to the Calcasieu Ward 1 Basin Area
 - Create a storm water master plan
 - Transfer of data for future Parish use
 - Training of Parish staff to run the models.

Topographic Survey

- An extensive Topographic and Bathymetric survey was completed of the modeled channels and structures.

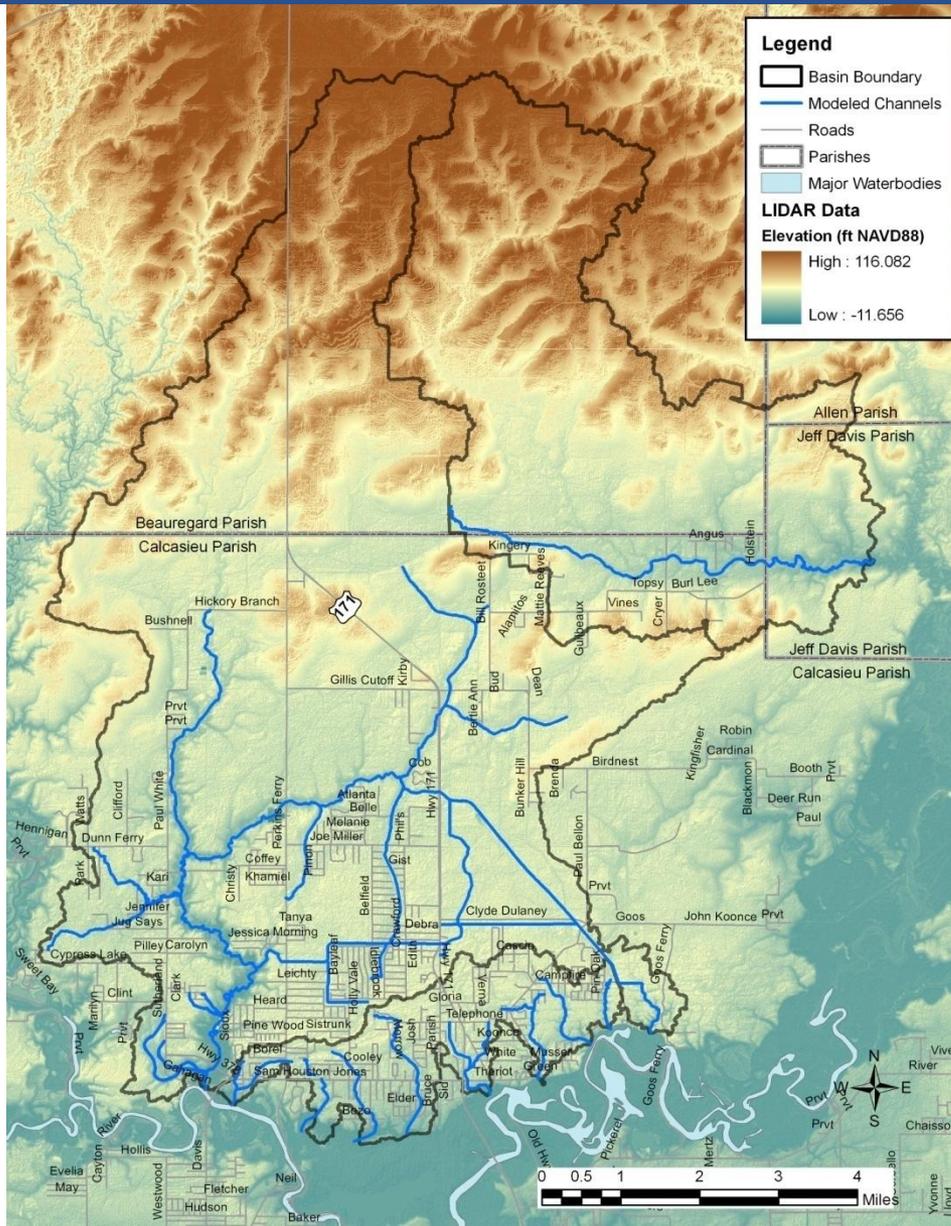


Basin Map



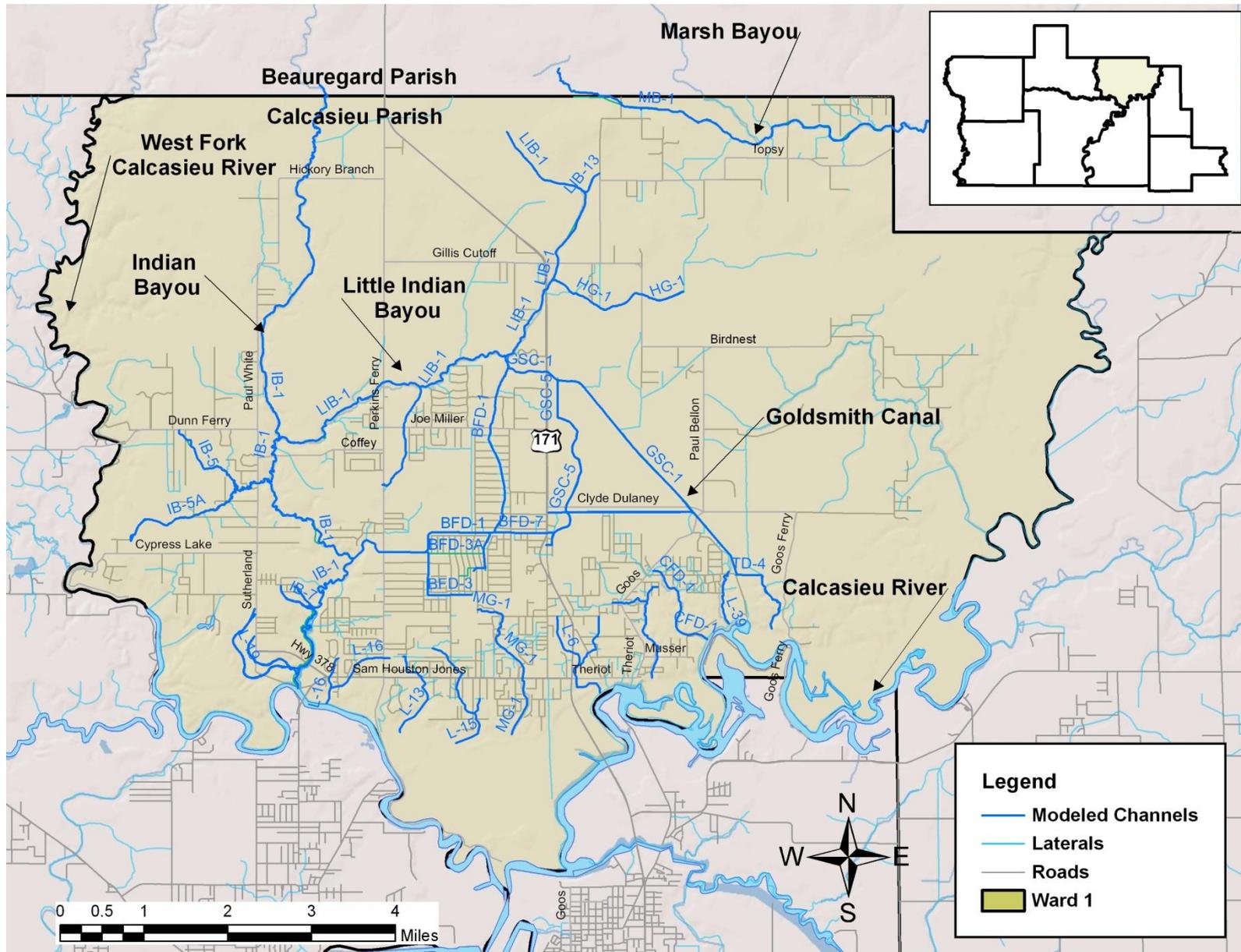
- Fenstermaker has completed hydrologic and hydraulic models on three basin areas.
 - Marsh Bayou
 - Moss Bluff
 - Minor Tributaries
- These basins represent the areas which are directly drained by a river system and their tributaries.

LIDAR Data



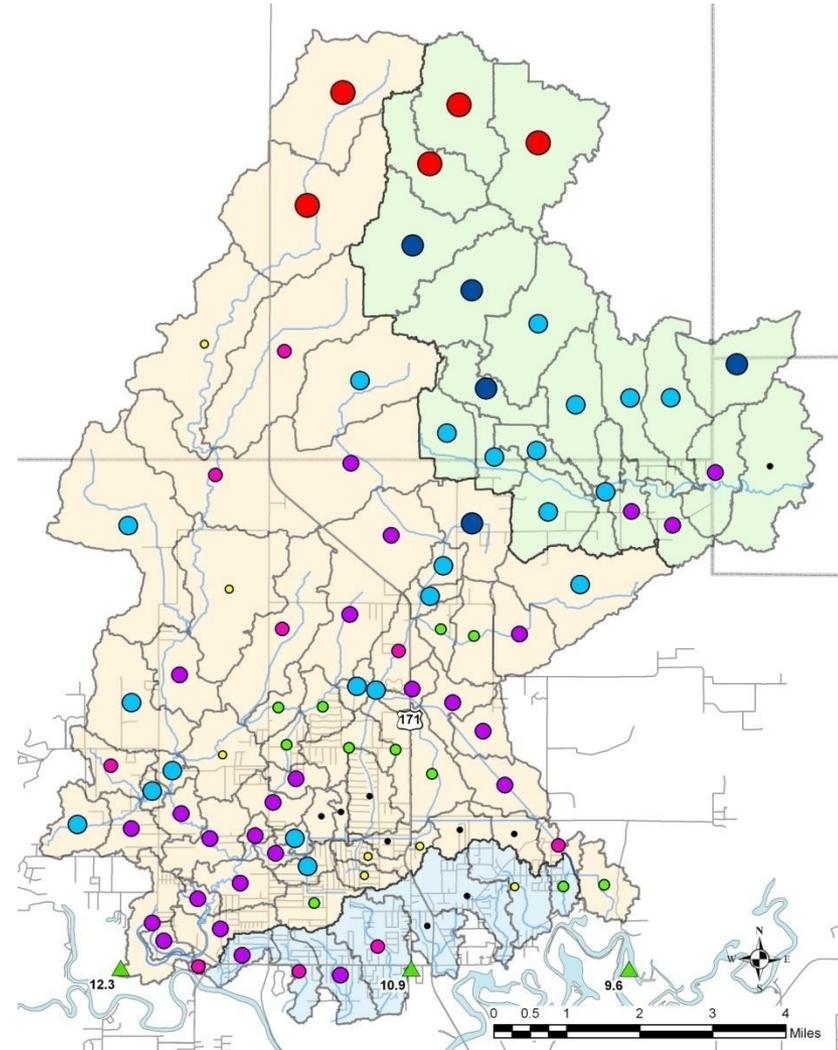
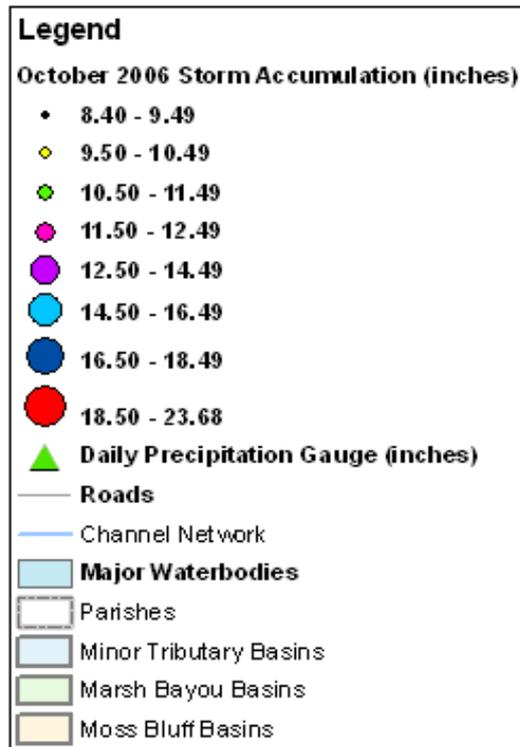
- Light Detection and Ranging (LIDAR) data was used to determine the flow paths, flow direction, and basin boundaries.

Modeled Channels



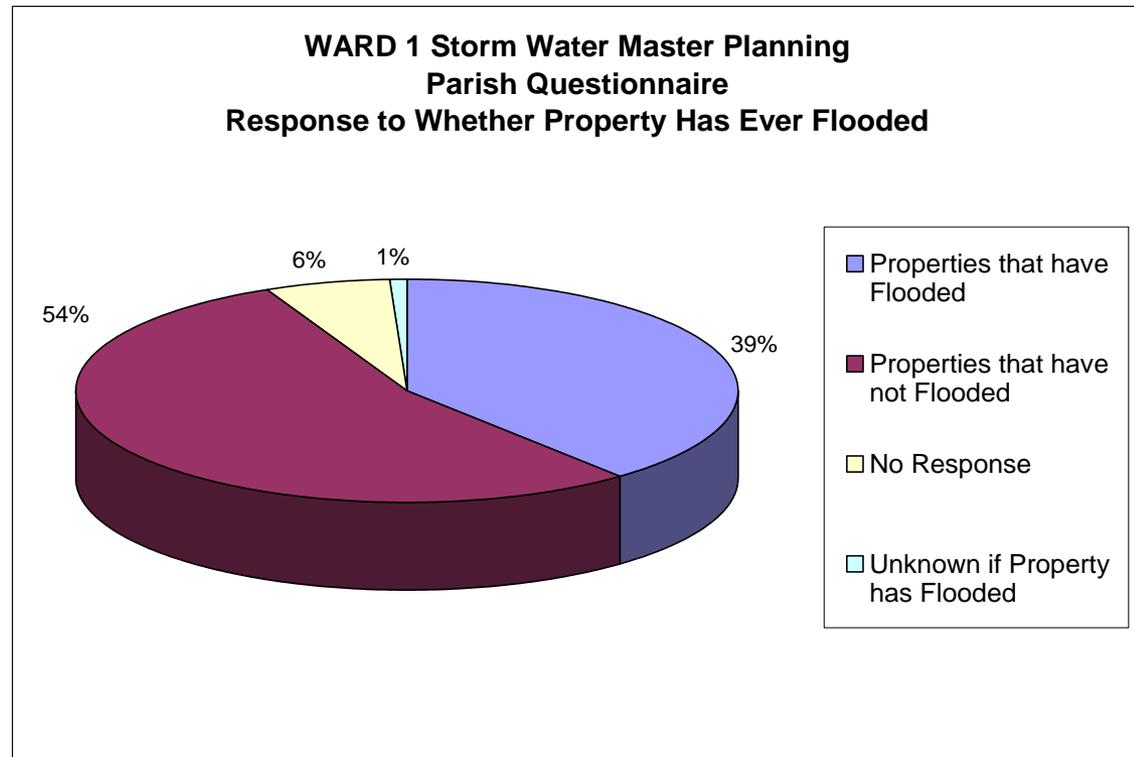
Accumulated RADAR Data (October 25-27, 2006)

One Hour Radar Precipitation Data was obtained through the National Climatic Data Center for the October 25-27, 2006 Storm Event. This data was used to validate the models.



Public Involvement

- Over 8,000 questionnaires were mailed out to the Ward 1 Residents to gather input.
- 567 responses were obtained from the Ward 1 residents



Project Status

- Fenstermaker has submitted and presented the Final Report to the CPPJ detailing any channel cleaning needed, assessing structure capacities, CIP maintenance plan for the drainage laterals, and recommendations on reducing the impact of any future development.
- The Ward 1 Drainage Report will be posted on the CPPJ website by the end of June 2009