

## HURRICANE CHARLEY CANOPY DAMAGE ASSESSMENT



### **Project Description**

The objective of this project was to assess tree canopy damage caused by Hurricane Charley which struck Charlotte County on August 13, 2004. PEER was retained to identify and quantify the damage, identify the types of trees damaged, and to develop an action plan for mitigating tree loss that can be utilized as a planning tool by the County. Scheda Ecological Associates, Inc. (Scheda) was contracted to provide photointerpretation and mapping services for the project.

Scheda staff formulated the mapping conventions and defined project boundaries based on the compilation of various National Oceanic and Atmospheric Association (NOAA) wind maps and apparent wind damage to the tree canopy. The work area was approximately 467 square miles. Photointerpretation used true color 1-foot resolution digital imagery provided by Charlotte County from three time frames: 2004 pre- and post-storm images, and 2006 images. Photointerpretation and on-screen digitizing was performed using ArcMap 9.2. Collateral data included South Florida Water Management District (SFWMD) and Southwest Florida Water Management District (SWFWMD) Land Use / Land Cover maps.

Quality control was performed on the digital data through ArcInfo 9.2 for spatial integrity while the photointerpretation was reviewed by a senior scientist on-screen. Once all data was fully validated, it was delivered to the client in an ArcInfo export format.

