



Katrina's Challenge: A Small Elevated House

Full Mitigation Best Practice Story

Jackson County, Mississippi

Pascagoula, MS – Laura Watson’s house on Pine Street in Pascagoula, Mississippi, has suffered damage over the years from repetitive flooding caused by heavy rains and hurricanes. Concerned that she would have to leave the home and community she loves, Ms. Watson decided it was necessary to take steps to mitigate her home against storm damage after Hurricanes Elena (1985) and Georges (1998).



Rather than relocate, Ms. Watson decided to elevate her home, which has allowed her to continue enjoying life in her friendly neighborhood. “I like my neighbors and they like me,” Ms. Watson said. “My friends are here and it’s quiet.”

Ms. Watson received funds from the Federal Emergency Management Agency’s (FEMA) Hazard Mitigation Grant Program (HMGP). Following a major disaster declaration, the HMGP funds up to 75 percent of the eligible costs of a mitigation project that will reduce or eliminate damages from future natural hazard events. The approved project totaled \$43,050, and was administered by the Mississippi Emergency Management Agency (MEMA).

“The HMGP funds made it possible for Ms. Watson to elevate her home,” said Director Robert Latham of MEMA. “The choice to do so prior to Hurricane Katrina certainly saved her home from becoming a total loss.”

Ms. Watson’s home is a modest two-bedroom, 950-square-foot structure located less than two miles from the Gulf of Mexico in a low-lying area of the neighborhood. The original structure was brick, which Ms. Watson decided to replace with board siding during the elevation project.

The house was elevated to 14.1 feet above mean sea level on eighteen 10-inch by 10-inch timber pilings embedded six feet into the ground. The pilings are located on the front, center, and back of the house for support. White lattice, which is designed to break away, conceals a storage space beneath the home. Corner bracings were added for further support, and galvanized hurricane straps were also installed.

After the mitigation project was complete, Ms. Watson returned home feeling safe and secure, and hoped that her problems with flooding were over. On August 28, 2005, as Hurricane Katrina approached the Mississippi Gulf Coast, Ms. Watson decided to evacuate to her sister’s house in Alabama to wait out the storm. When Katrina hit Pascagoula the following day with reported winds of 104 miles per hour and a 19-foot storm surge, she wondered if her house would stand up to the fierce storm.

As Katrina hammered the Gulf Coast, Ms. Watson’s next door neighbor, who lives on higher ground and did not evacuate, kept her informed of conditions in Pascagoula by telephone. Ms. Watson vividly remembers her neighbor saying, “Laura, your yard looks like the Mississippi River.” As she listened to her neighbor’s descriptions of the storm and its impact on her property, she kept up hope that her house would survive.

Ms. Watson returned to her home two days later, when the water from the Gulf had retreated. She looked at her house and thought, “thank God my house is still standing.”

Ms. Watson surveyed her house for damages, and was amazed to find that practically everything was intact. There was one broken window on the back of the house and scattered debris in the yard from surrounding properties. Upon further inspection, she discovered that although the house was elevated, five feet of water had entered the living area. However, Laura noted, “if my house had not been elevated it would have been completely under water.”

Ms. Watson immediately began cleaning her house to protect it from further damage and to protect herself from potential health problems that are caused by mold. She knew it was necessary to dry out water-damaged areas of the house and her personal belongings within 24 to 48 hours to help prevent mold from developing.

Unfortunately, a family across the street did not fare as well as Ms. Watson did during Katrina. Their house was completely submerged and is uninhabitable; it sits in the same low-lying area and is not elevated. “I am truly glad I elevated when I look at

my neighbors across the street,” Ms. Watson said.

Activity/Project Location

Geographical Area: **Single County in a State**

FEMA Region: **Region IV**

State: **Mississippi**

County: **Jackson County**

Key Activity/Project Information

Sector: **Private**

Hazard Type: **Flooding; Hurricane/Tropical Storm**

Activity/Project Type: **Elevation, Structural**

Activity/Project Start Date: **06/2002**

Activity/Project End Date: **08/2002**

Funding Source: **Hazard Mitigation Grant Program (HMGP)**

Funding Recipient: **Property Owner - Residential**

Application/Project Number: **9999**

Activity/Project Economic Analysis

Cost: **\$43,050.00 (Actual)**

Activity/Project Disaster Information

Mitigation Resulted From Federal
Disaster? **Unknown**

Value Tested By Disaster? **Yes**

Tested By Federal Disaster #: **No Federal Disaster specified**

Year First Tested: **2005**

Repetitive Loss Property? **Yes**

Reference URLs

Reference URL 1: <http://www.fema.gov/government/grant/hmgp/index.shtm>

Reference URL 2: <http://www.msema.org>

Main Points

- HMGP funds made it possible for Laura Watson to elevate her home in Pascagoula.
- Elevation protected the home from being a total loss during Hurricane Katrina in 2005.
- Although 5 feet of water entered the home, Ms. Watson was able to clean it and the house was inhabitable after the storm.



Laura Watson's house survived Katrina.



Drainage beside Laura Watson's house.