



A Tribe's Path to Mitigation

Full Mitigation Best Practice Story

Escambia County, Alabama



Poarch Creek Indian Reservation, AL - The Poarch Creek Indian Reservation, located northwest of the City of Atmore, had a challenging storm water drainage problem. Rain runoff placed property and tribal members at risk to flood damages. Using a thorough approach, the Poarch Creek Indian Reservation took steps to reduce the risk and associated vulnerability to the safety and economic condition of its community.

In 2000, the Poarch Creek Indian Reservation obtained funding from Alabama Emergency Management Agency to conduct a comprehensive study of their 23 drainage basins covering 460 acres. The Storm Drainage Study, completed in January 2001, provided the Reservation with a sound assessment of the nature of their storm water drainage problem, solutions for each of the 23 drainage basins, and a recommended prioritization for the improvements. The projects were prioritized as high, medium and low and the project costs totaled \$447,000. With accurate risk and mitigation option information, the Reservation moved forward to work on the highest priority efforts.

Based on the study, the Reservation applied for funding for a drainage system associated with the Willow Creek Housing Subdivision, the study's identified top priority. This drainage basin, identified as Basin 4 in the study, consists of 11.5 acres of residential land located in the southern portion of the Reservation. During heavy rainstorms, water would back up at the mouth of the flume and flood the nearby residences. Hurricane Erin in 1985, for example, resulted in almost \$200,000 in damages to buildings.

An additional compelling reason for this priority was the 30 senior citizen and disabled person housing units in the Willow Creek Subdivision. The project also protected six private homes and the Poarch Creek Indians Utilities Building.

Over 600 feet of culvert and 190 feet associated flume were completely rebuilt for a total cost of \$60,000. The culvert was expanded to a 42 inch drainage pipe and the concrete flume was 4 feet in diameter. The previous system had inadequate capacity and the extremely low slope of the flume caused the backwater condition. The new drainage system provides protection against high frequency surface water flooding (20-year flood level).

Since the completion of the drainage system in 2002, the area has not suffered from surface water flooding. The drainage system successfully managed the over 8 inches of rain brought by Hurricane Ivan in September 2004.

Activity/Project Location

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

FEMA Region: **Region IV**

State: **Alabama**

County: **Escambia County**

City/Community: **Atmore**

Key Activity/Project Information

Sector: **Public**
Hazard Type: **Severe Storm**
Activity/Project Type: **Flood Control**
Activity/Project Start Date: **09/2000**
Activity/Project End Date: **09/2002**
Funding Source: **State sources**
Funding Recipient: **Tribal Organizations/Government**
Funding Recipient Name: **Poarch Creek Indian Reservation**

Activity/Project Economic Analysis

Cost: **\$60,000.00 (Estimated)**
Non FEMA Cost:

Activity/Project Disaster Information

Mitigation Resulted From Federal
Disaster? **Yes**
Federal Disaster #: **742 , 09/07/1985**
Value Tested By Disaster? **Yes**
Tested By Federal Disaster #: **No Federal Disaster specified**
Year First Tested: **2004**
Repetitive Loss Property? **Unknown**

Reference URLs

Reference URL 1: <http://www.floodsmart.gov>
Reference URL 2: <http://www.fema.gov/business/nfip/>

Main Points

- Obtained funding from Alabama Emergency Management Agency to conduct a comprehensive study of their 23 drainage basins covering 460 acres.
- Based on the study, the Reservation applied for funding for a drainage system.
- Over 600 feet of culvert and 190 feet associated flume was completely rebuilt for a total cost of \$60,000. The previous system had inadequate capacity and the extremely low slope of the flume caused the backwater condition.

