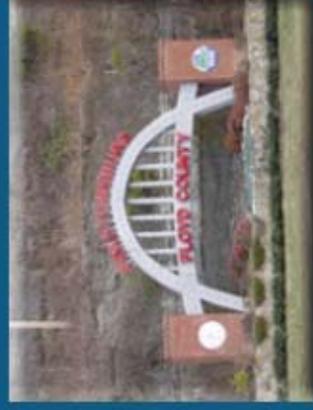




# Flood Damage Reduction Study



# Floyd County Community Meeting



March 9, 2004



Flood Damage Reduction Study

# Welcome and Introductions

**Paul Hunt Thompson, Judge Executive**

**COL William E. Bulen, Corps of Engineers**

**Tammy L. Conforti, Corps of Engineers**



# Agenda



- I. Welcome and Introductions**
- II. Overview of Study Authorization and Purpose**
- III. Flood Damage Reduction Study Overview**
- IV. Next Steps in the Study Process**
- V. Staying in Contact**
- VI. Public Comment Period**



Flood Damage Reduction Study

# Overview of Study Authorization and Purpose



# History of Flooding in Floyd County



Flood Damage Reduction Study



**Historic Flood Events in Floyd County, Kentucky**



# Flood of April 1977



Flood Damage Reduction Study





# Summary of Damages from 1977 Flood



Flood Damage Reduction Study

- ▶ Throughout the Levisa Fork Basin, a total of \$282 million in damages occurred (current dollars).
- ▶ Floyd County incurred \$133 million in damages (current dollars).





# Study Authorization



**“The Secretary of the Army, acting through the Chief of Engineers, is authorized and directed to design and construct...such flood control measures...the Chief of Engineers determines necessary and advisable to afford these communities and other flood damaged localities and their immediate environs on both the Levisa and Tug Fork...a level of protection against flooding at least sufficient to prevent any future losses to these communities from the likelihood of flooding such as occurred in April 1977...”**

Section 202 of the 1981 Energy and Water Development Appropriations Act (Public Law 96-367)



# Study Purpose



- ▶ To develop the most cost effective plan for providing flood damage reduction along the Levisa Fork and its tributaries in Floyd County, Kentucky.



Flood Damage Reduction Study



Flood Damage Reduction Study

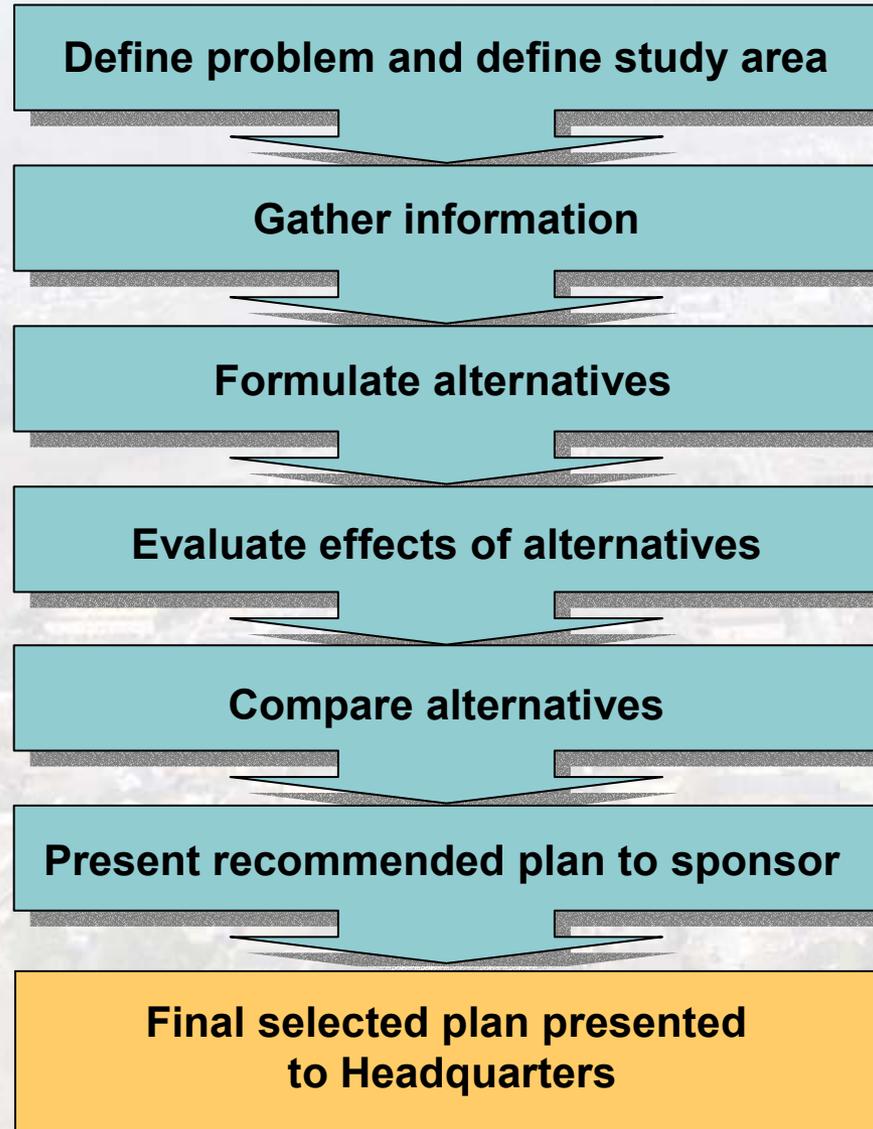
# Flood Damage Reduction Study Overview



# Study Process



Flood Damage Reduction Study





# Flood Threat



Flood Damage Reduction Study

- ▶ Corps authorized to begin Floyd County flood damage reduction study in 2002
- ▶ Flood threat to Floyd County
  - Approximately 5,500 residential structures
  - Approximately 800 nonresidential structures



# Floyd County Study Phasing



Flood Damage Reduction Study

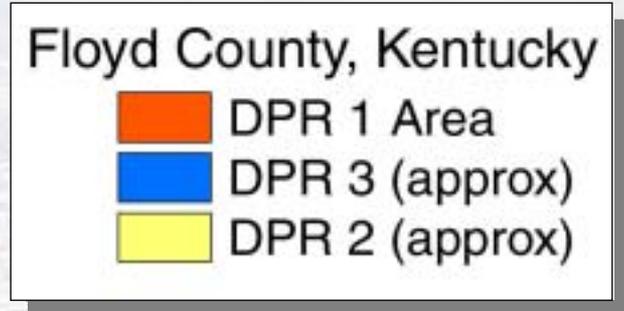
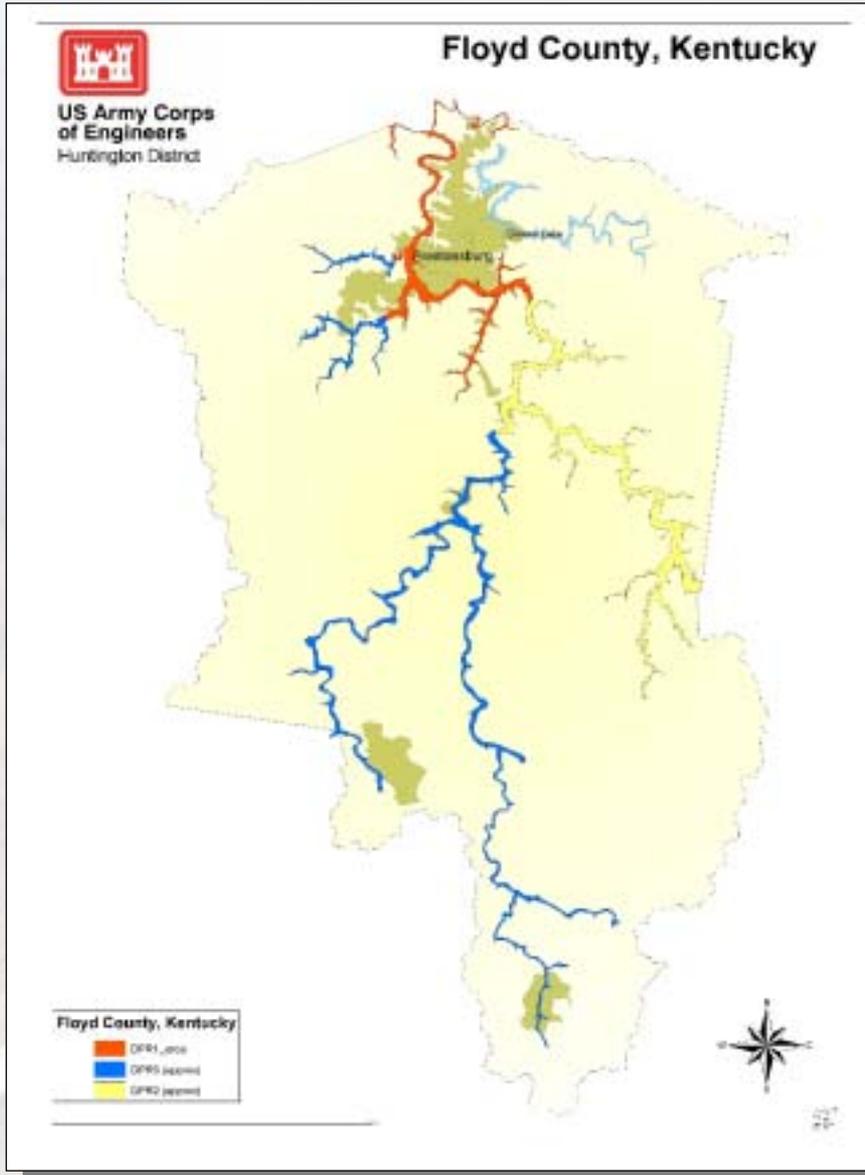
- ▶ **Study area delineation**
- ▶ **Floyd County phasing plan**
  - Phase 1 – Prestonsburg and downstream to county boundary
  - Phase 2 – upstream of Prestonsburg to county boundary
  - Phase 3 – all remaining areas in Floyd County
- ▶ **Begin Detailed Project Report for Phase 1**



# Floyd County Study Phasing



Flood Damage Reduction Study





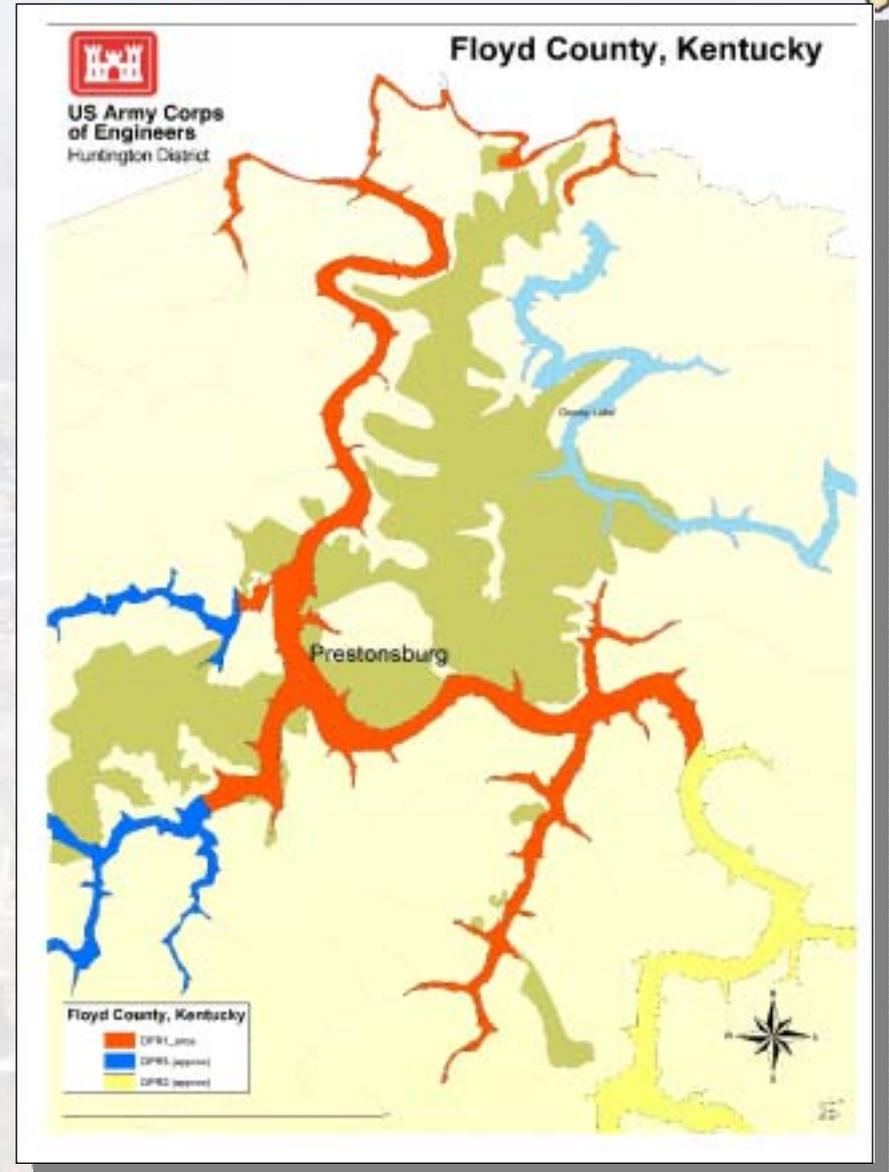
# Flood Threat



- ▶ Flood threat to Phase 1 area (Prestonsburg and lower Levisa Fork)
  - 972 residential structures
  - 319 nonresidential structures

Floyd County, Kentucky

-  DPR 1 Area
-  DPR 3 (approx)
-  DPR 2 (approx)





# Flood Threat



Flood Damage Reduction Study

▶ Flood threat to  
downtown  
Prestonsburg

- 52 residential structures
- 89 nonresidential structures





# Simulation of 100-Year Flood Event



Flood Damage Reduction Study

Add photo simulation of downtown  
Prestonsburg under 100-year flood  
conditions



# Economic Impact of Flooding

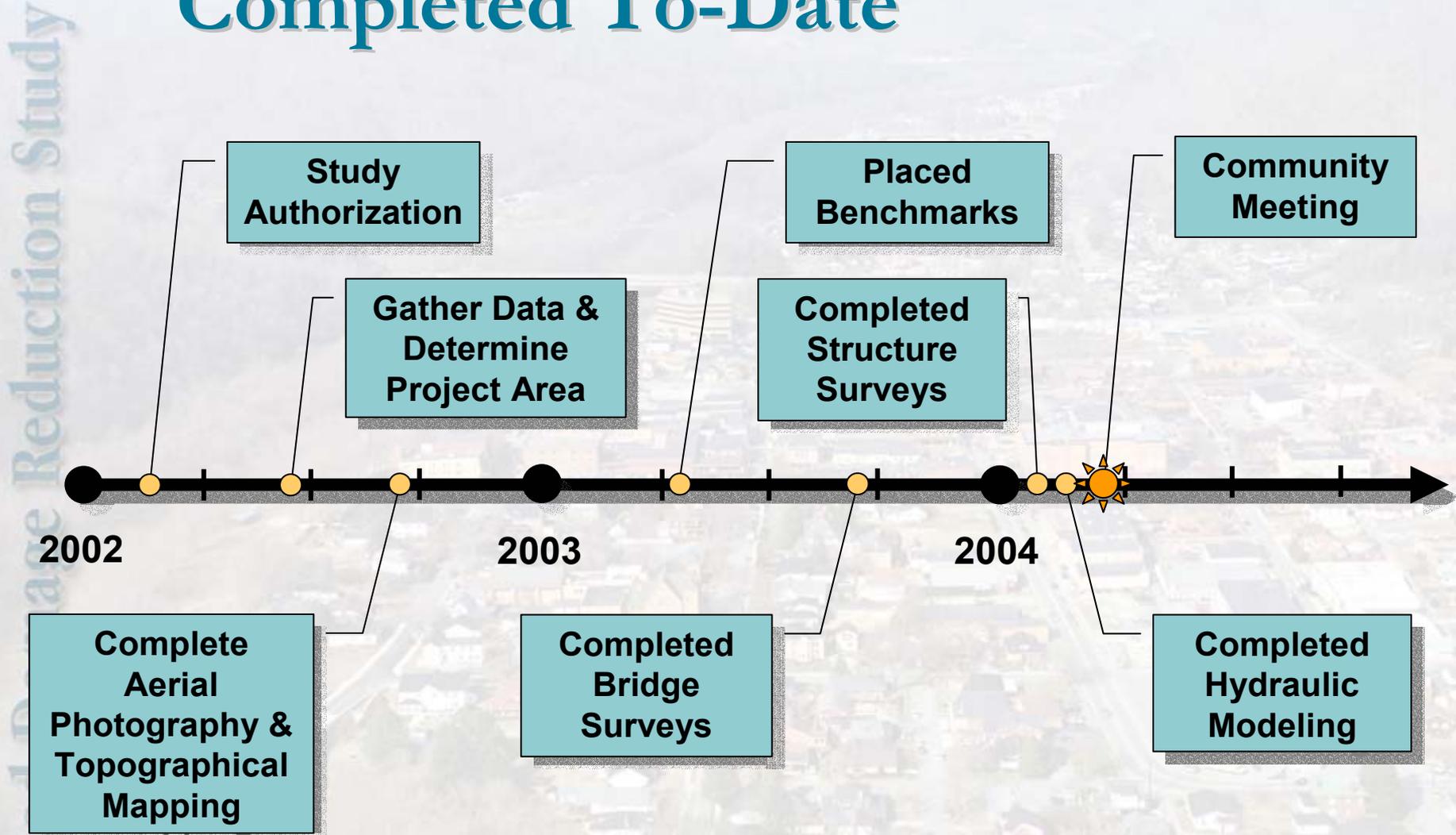


Flood Damage Reduction Study

Data for \$ damages for different flood levels, i.e. 20-year, 50-year, 100-year, and 500-year



# Study Milestones Completed To-Date





# Flood Protection Alternatives



Flood Damage Reduction Study

- ▶ Structural measures
- ▶ Nonstructural measures
- ▶ Combination of structural and nonstructural measures





# Floyd County Alternatives Under Consideration



Flood Damage Reduction Study

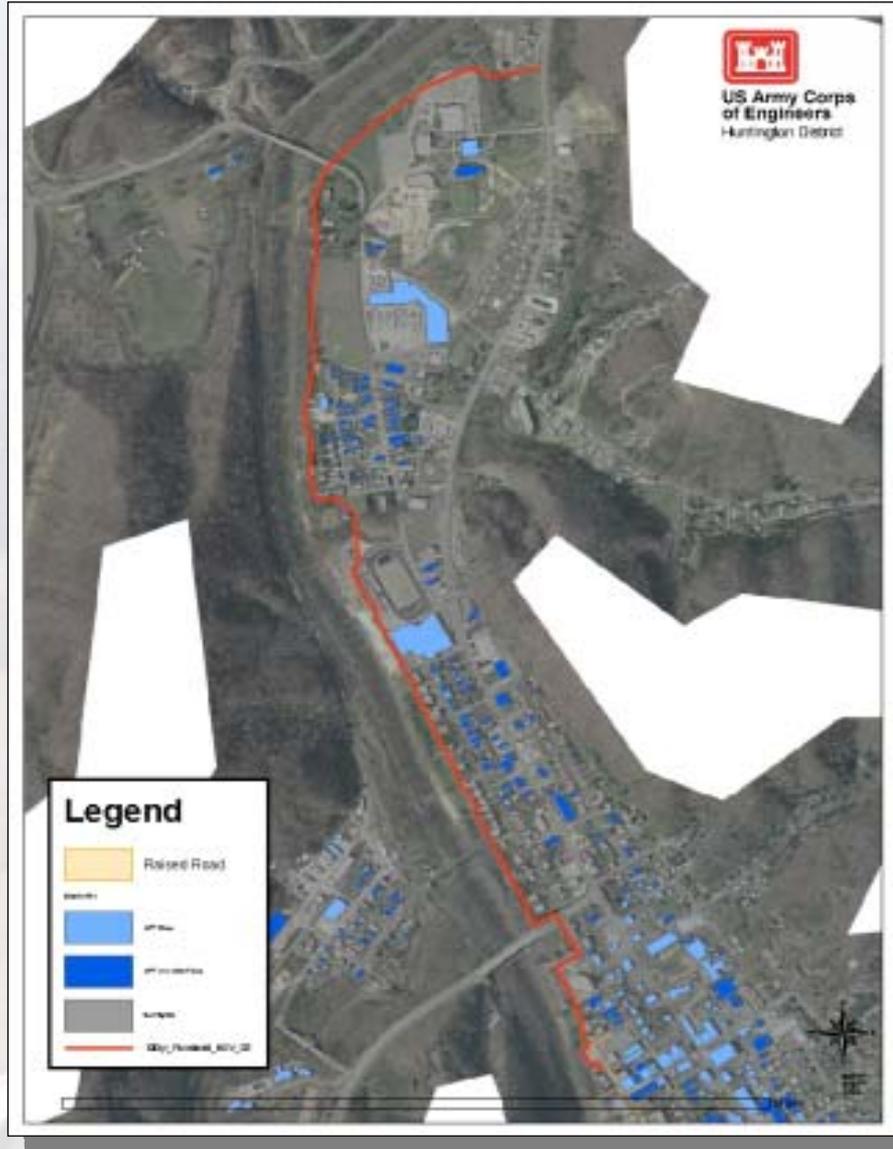
- ▶ **Structural measures**
  - Floodwall to protect downtown Prestonsburg
- ▶ **Nonstructural measures**
  - Floodproofing structures
  - Floodplain evacuation
  - Floodplain evacuation plan
  - Flood warning system



# Structural Alternatives



Flood Damage Reduction Study



## Floodwall

- Raised Road
- Eligibility
- 1977 Flood
- 1977 and 100-Year Flood
- Not Eligible
- 100-Year Floodwall



# Structural Alternatives



Flood Damage Reduction Study



## Floodwall

- 100-Year Floodwall
- Gate
- Raised Road



# Structural Alternatives



Flood Damage Reduction Study





# Structural Alternatives



Flood Damage Reduction Study

In Progress





# Nonstructural Alternatives



- ▶ **Floodproofing structures**
  - **Raise-in-place**
  - **Move on site**
  - **Replacement**
  - **Veneer wall**
  - **Ringwall**
- ▶ **Floodplain evacuation**
- ▶ **Flood warning system**
- ▶ **Floodplain evacuation plan**



# Nonstructural Alternative



Flood Damage Reduction Study

Raise-in-place





# Nonstructural Alternative



Flood Damage Reduction Study

Raise-in-place





# Nonstructural Alternative



Flood Damage Reduction Study



Raise-in-place



# Nonstructural Alternative



Flood Damage Reduction Study



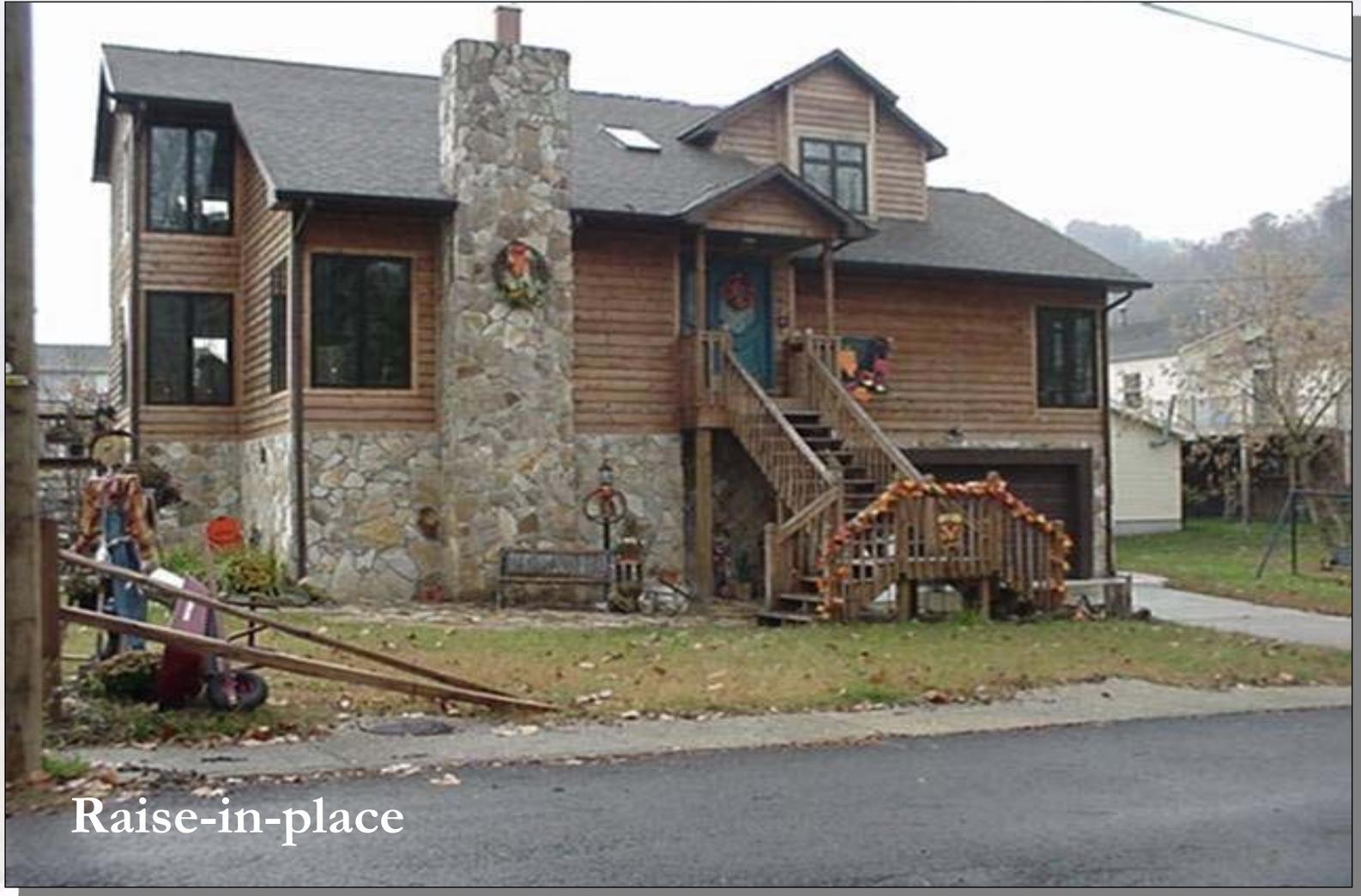
Raise-in-place



# Nonstructural Alternative



Flood Damage Reduction Study



Raise-in-place



# Nonstructural Alternative



Flood Damage Reduction Study



Ringwall



# Nonstructural Alternative



Flood Damage Reduction Study



Ringwall



# Nonstructural Alternative



Flood Damage Reduction Study



Veneer wall



# Nonstructural Alternative



Flood Damage Reduction Study



Floodplain Evacuation



# Nonstructural Alternative



Flood Damage Reduction Study

## Tug Fork Valley

Big Sandy River Basin

Flood Warning and  
Emergency Evacuation  
Plan For Lower Mingo  
County Project, W. Va.



US Army Corps  
of Engineers  
Huntington District

March 1994

Floodplain  
evacuation and  
flood warning  
system



# Potential Project Benefits



Flood Damage Reduction Study

- ▶ Reduce flood hazard risk
- ▶ Create economic development opportunities
- ▶ Reduce flood damage
- ▶ Reduce public health risk
- ▶ Etc.



# Potential Project Benefits



Flood Damage Reduction Study

- ▶ Enhance GIS and 911 systems
- ▶ Reduce flood insurance costs
- ▶ Improve sewer and stormwater system
- ▶ Etc.



Flood Damage Reduction Study

# Next Steps in the Study Process

Floyd County Community Meeting



# Next Steps



Flood Damage Reduction Study

- ▶ Finalize surveying for Phase 1
- ▶ Develop structural alternatives for West Prestonsburg
- ▶ Complete alternatives development for Phase 1
- ▶ Cost estimate each alternative and compare alternatives by cost
- ▶ Recommend most cost effective alternative to local sponsor (Summer 2006)
- ▶ Local sponsor makes decision
- ▶ Begin project implementation



*Flood Damage Reduction Study*

# Staying in Contact

**Floyd County Community Meeting**



# Staying in Contact



- ▶ Future public meetings
- ▶ Task force
- ▶ Local media updates
- ▶ Local government
  - Judge Paul Hunt Thompson
  - Mr. Lon May
- ▶ Corps project information office
- ▶ Corps presentations to local organizations
- ▶ Corps of Engineers
  - Ms. Tammy Conforti



# U.S. Army Corps of Engineers Huntington District



- ▶ **Ms. Tammy Conforti, Project Manager**  
**502 Eighth Street**  
**Huntington, WV 25701**
- ▶ **1-866-401-3980 or 304-399-5834**
- ▶ **[tammy.l.conforti@lrh01.usace.army.mil](mailto:tammy.l.conforti@lrh01.usace.army.mil)**

Flood Damage Reduction Study



*Flood Damage Reduction Study*

# Public Comment Period

Floyd County Community Meeting



# Flood Damage Reduction Study



# Floyd County Community Meeting



March 9, 2004



# Public Involvement Completed To-Date



- ▶ February 2002 - Study authorization
- ▶ March 2002 - Project kick-off meeting and postcards mailed to residents
- ▶ April 2002 - Fire Department distributes informational flyers
- ▶ November 2003 - Public meeting
- ▶ January 2004 - Project information office established
- ▶ March 2004 - Public meeting