Flood Damage Reduction

Objectives

- *Identify causes of floods and control options*
- *Identify your responsibility in the flood control mission*
- *Summarize flood control mission*

Causes of Floods

Factors Affecting Runoff

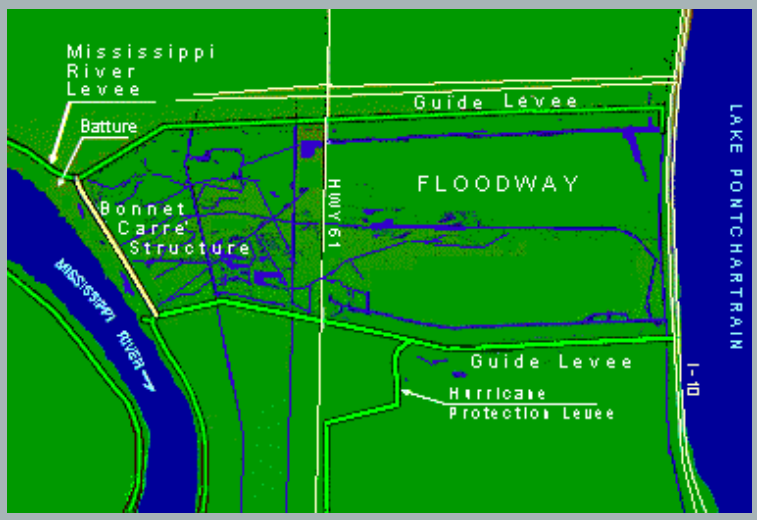
- *Snowmelt vs rainfall*
- *Rural area vs urban setting*
- *Foothills and mountains vs flat terrain*
- *Short, high intensity storm vs long, low intensity storm*

Flood Control

- *Channel improvements*
- *Divert the water*
- *Contain the water*

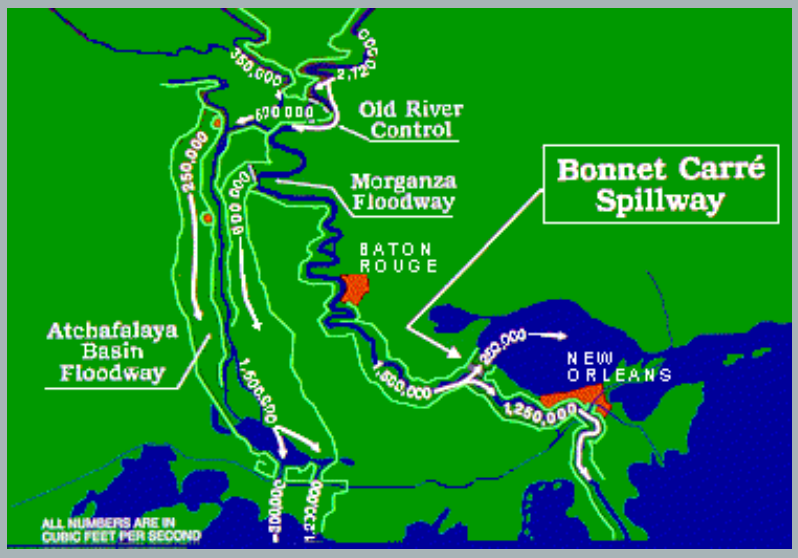
Channel Improvements

Divert the Water

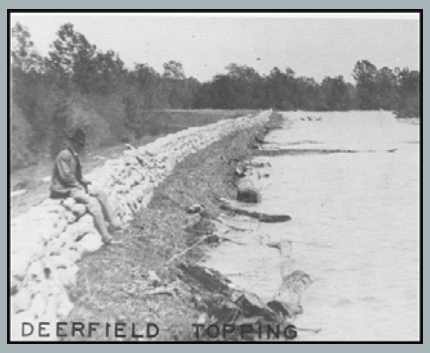


Divert the Water

Divert the Water

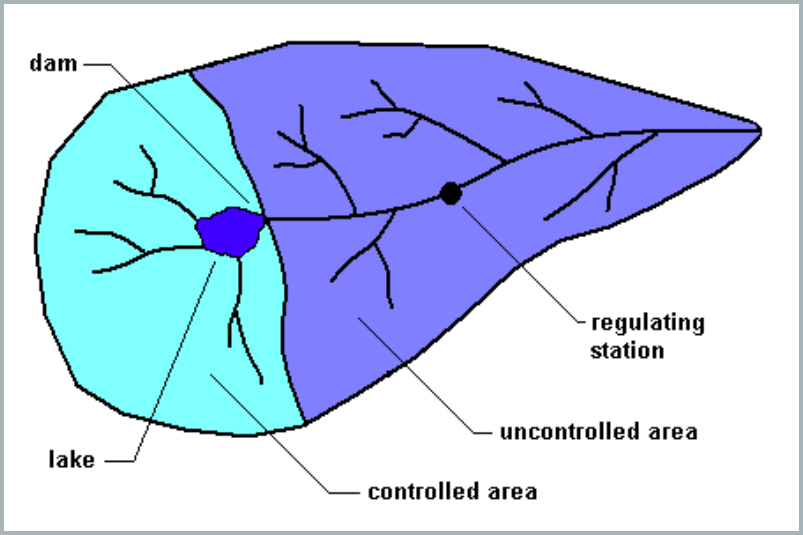


Contain the Water

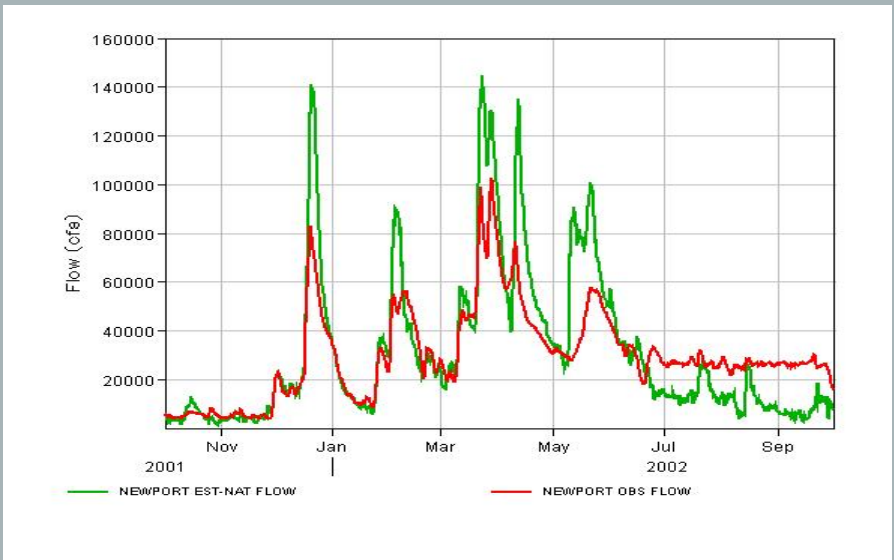


Contain the Water

Contain the Water



Contain the Water



Role of Field Personnel

Role of Field Personnel

Role of Field Personnel

Role of Field Personnel

Role of Field Personnel

Inspection of Local Flood Protection Projects

Certified Unsafe

Flood Fighting

Summary of Flood Control Projects

- *Since 1936, Corps has completed:*
  - *400 major lake and reservoir projects*
  - *8,500 miles of levees and dikes*
  - *Hundreds of smaller local flood damage reduction projects*
- *Total cost = $119 billion (build and maintain)*

Summary of Flood Control Benefits

- *Since 1936, has prevented $706 billion dollars in damages*
- *Today, it is estimated that $21 billion in damage is prevented in an average year*
- *6:1 return on investment ratio*