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

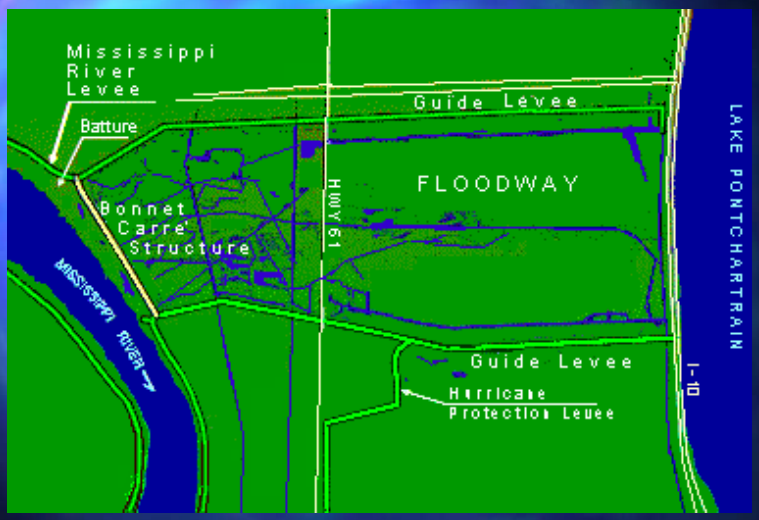
- Snowmelt vs rainfall
- Rural area vs urban setting
- Foothills and mountains vs flat terrain
- Short, high intensity storm vs long, low intensity storm

Flood Control

- Channel improvements
- Divert the water
- Contain the water

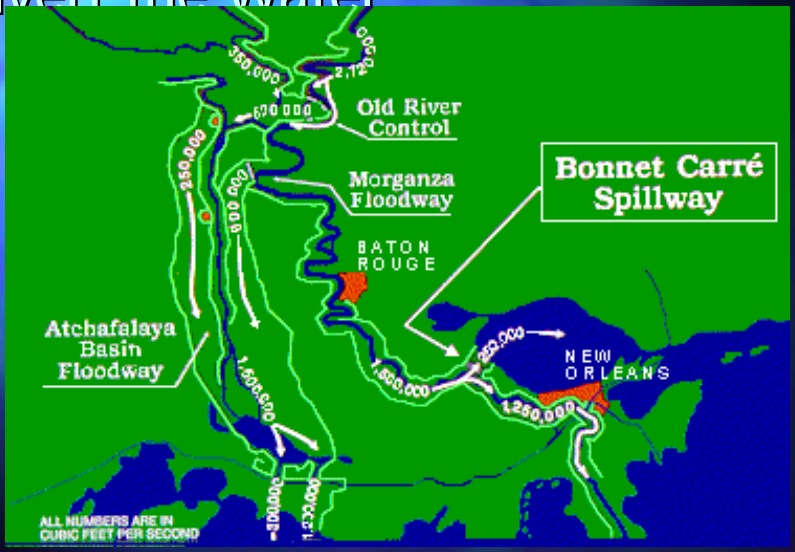
Channel Improvements

Divert the Water



Divert the Water

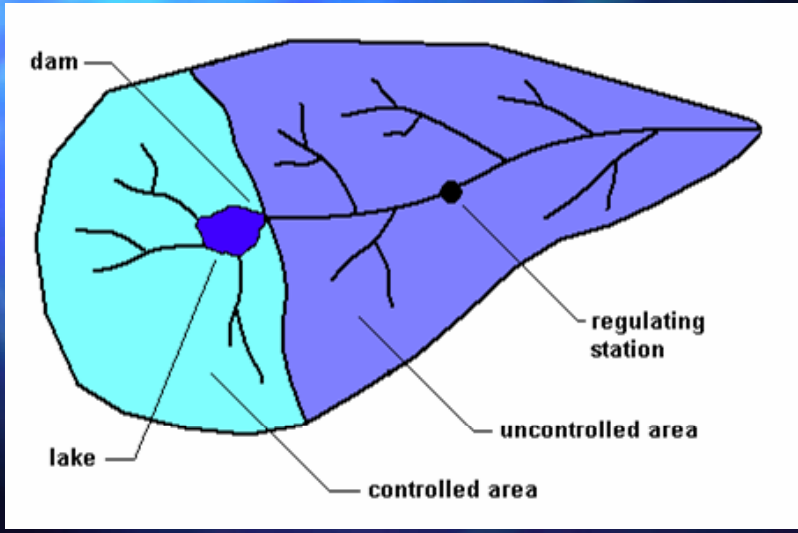
Divert the Water



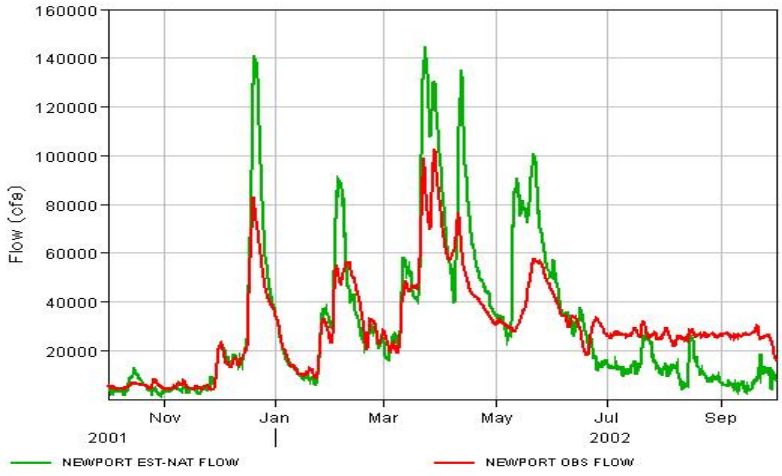
Contain the Water

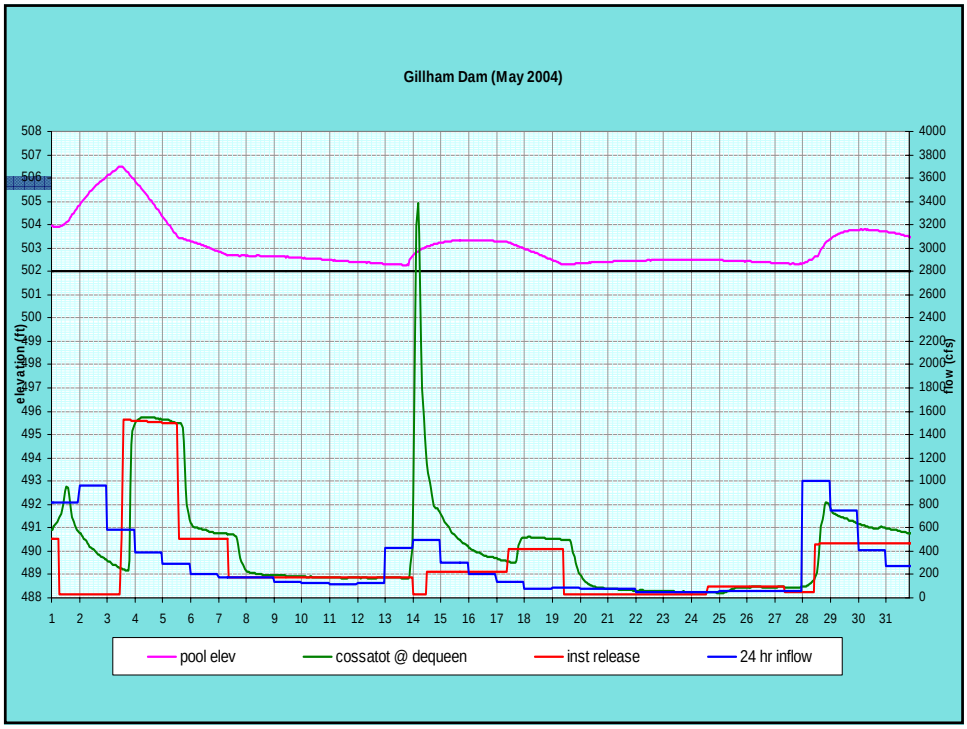
Contain the Water

Contain the Water



Contain the Water





Role of Field Personnel

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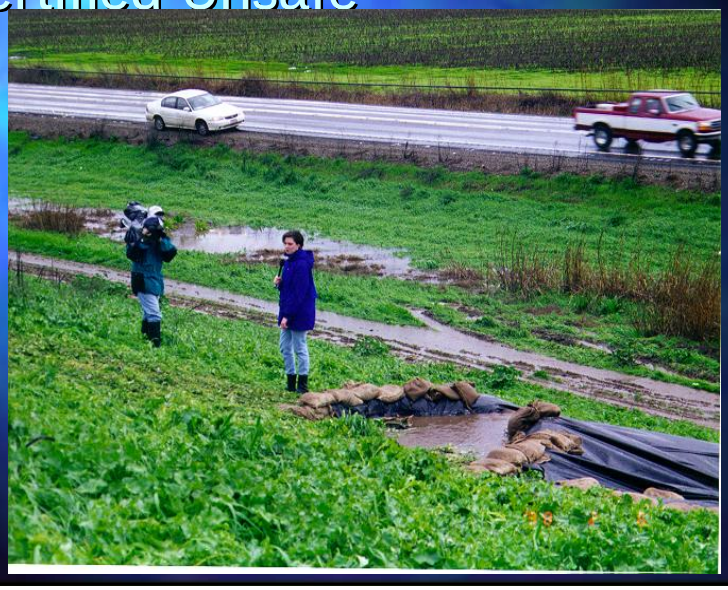
Role of Field Personnel

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