Waldo Canyon Fire
Post-Fire Flash Flood Recovery

Sallie Clark
Former County Commissioner
El Paso County, CO
El Paso County Disaster Recovery

OVERVIEW

Declared Disasters:

▪ June 2012 - Waldo Canyon Fire
▪ June 2013 - Black Forest Fire
▪ September 11, 2013 - Flooding Event
▪ May-June, 2015 – Flooding Event

Undeclared Disasters:

▪ July 2013 Flooding
▪ August 2013 Flooding

▪ There were 80 line items (grants) within these categories to manage
History of the Waldo Canyon Fire

- June 23, 2012: near Colorado Springs in western El Paso County
- Two people killed
- 18,247 acres burned, mostly mountainous, steep terrain
- 347 homes destroyed and over $400 million insured loss
- More than $50 million expended on area efforts for fire recovery & flood mitigation
Waldo Canyon Fire Funding

Federal
- Federal Emergency Management Agency (FEMA)
- Natural Resources Conservation Services (NRCS)

State
- Colorado Dept. of Homeland Security
- Governor’s Office
- Colorado Water Conservation Board
- Colorado Dept. of Agriculture

Local
2012 Fire Fund    Red Cross
El Pomar         Pikes Peak Regional Building Department

Watershed Assessment of River Stability and Sediment Supply (WARSSS):
study funded by El Paso County, City of Colorado Springs, City of Manitou Springs, Colorado Springs Utilities, Colorado Water Conservation Board, CO DHS/Office of Emergency Management
Recovery Specific to Incident

Recovery Efforts Depend on:
- Population Impacted
- Topography of Area
- Size and Extent of Disaster
- Homes Damaged/Destroyed
- Businesses Damaged/Destroyed
- Infrastructure Damage/Destroyed
- Utilities Damaged/Destroyed
- Jurisdictions
- Public Health Concerns
- Citizen & Volunteer Reponse
- Funding Resources
Waldo Canyon - Above Cascade

Work on private property:

• Debris removal
• Structure protection
  - Gabions
  - TRAP bags
  - Sand bags & berms
• Channel improvements
Overview of Effort

CASCADe PROJECTS

RAINBOW FALLS BASIN CLEAN-OUT PROJECT
Above Cascade
HMGP, CDBG, State, County acquisition partnership

Gabions

TrapBags
Cascade Middle Channel

- Sediment removal & channel stabilization
- Grade control structures & catchment basins
- Low water crossings
Grade Control

- Purpose: slow water down
- Achieved by use of several techniques:
  - Sills
  - Crib walls
  - Energy dissipation
  - Basins
  - Erosion control matting
Grade Control

- Rock check dams in series for grade control
- Rock-lined low water crossing to protect road from erosion
Catchment Basins

- Used to catch sediment and reduce peak flows
Riprap Rundown

- Flow across cul-de-sac is channeled into opening between RIBS bags
- Rock sill at bottom dissipates energy
- Channel is covered in reinforced erosion matting
- Re-graded side slopes are seeded and matted
Riprap Rundown
Rainbow Falls Sediment Catchment

- Used existing structure built in 1934 by Civilian Conservation Corps
- Removed 3,400 cubic yards of decomposed granite
- Achieved approximately 3 acre-feet of storage
Rainbow Falls Pond (after)

- Three to five feet of sediment removed from pond area
- Approximately 50 trees removed
Manitou Springs
Structure Protection
Williams Canyon (Above Manitou Springs)

- Evaluated canyon from old entrance gate to Forest Service boundary:
  - Temporary access road
  - Rosgen structures
  - Debris removal
  - Decommission road upon completion
  - Channel improvements
Williams Canyon (Above Manitou Springs)

- Very limited access in upper reach (from falls to USFS boundary, walk in only)
- Varied geology in middle stretch (in red)
- Inadequate space available for catchments/no access for maintenance
- Archeological clearances require removal of old road and wall
- Not cost effective
Recovery: Public Communication Efforts

Public Meetings in impacted areas to address

- Post fire public safety risks: restoration of Utilities, Flash Flooding, Dead Trees, Infrastructure damage/repair
- Insurance Advocacy – Consider Non-Profit like United Policyholders
- Recovery projects updates and timelines
- Communicate clearly funding requirements and efforts
- Interagency responsibilities and cooperation
- Non-profit resources
- Non-stop press releases, email blasts, social media, recovery information web page, etc – use all avenues
Recovery Collaboration

Identified Partners and Responsibilities and Recurring Meetings Throughout Process

Government Agencies

- County
- Cities & Towns
- Utilities
- State Department of Local Affairs
- State & Local Office of Emergency Management
- U.S. Forest Service
- Natural Resources Conservation Service (NRCS)
- U.S. Congressional representation
- State Department of Transportation
- Army Corps of Engineers
- Water Quality: State and County Health Dept.
- U.S. Weather Service
- Other Jurisdictional Agencies
- Private property owners and Non-profit agencies
Recovery Collaboration

Partners and Responsibilities

Coordinated participation at a Disaster Assistance Center

Non Profits & Disaster Assistance
• Goodwill
• United Way
• Red Cross
• United Policyholders
• Insurance Agencies
• Food Banks
• Faith Based Organizations
• Environmental Organizations
• Mental Health Organizations
• Local Agencies that can help with funding, volunteers, food, clothing, health care, home building organizations, etc.
Recovery Collaboration

Coordinate for participation at a Disaster Assistance Center

County & Affiliated Agencies
- Budget & Finance (FEMA)
- Transportation/Fleet
- Engineering
- Assessor
- Human Services
- Public Health
- Regional Building
- Environmental Services
- Sheriff’s Office
- Office of Emergency Management
- Public Information
- Workforce Center
- Small Business Development Center
Prevention is Critical

• The same conditions that contributed to the Waldo Canyon Fire and subsequent flooding exist in lands adjacent to the burn scar
  – Major population centers and life safety at risk
  – Communities and critical U.S. highway connecting the Front Range to the mountains
Prevention is Critical

• Healthy forest management is a fraction of the cost of fighting and recovering from forest fires and floods.
  – A healthy forest has 100 trees per acre; a typical acre in Pike National Forest has 1,000 trees
  – Forestry projects that prevent catastrophic forest fires are key to limiting lasting regional economic impact from fires and flash floods
  – There is approximately 212,000 acres of Pike National Forest in El Paso and Teller Counties; 18,000 acres burned in the Waldo Canyon Fire
  – National Forest officials say all acreage needs active management
Needs for Current & Future Projects

• Emergency Watershed Protection Program funds to initiate and complete projects and expand mitigation.
• Funds to restore healthy forests to prevent catastrophic wildfires and damage to watersheds and communities.
• Funds needed for hazardous fuel reduction to aid in healthy forests.
• Continuation of Good Neighbor Authority and Forest Stewardship Program under the Farm Bill critical in current and future forest fire mitigation projects.
• Funds (Hazard Mitigation Grant Program) needed to purchase private property that is repeatedly flooded to reduce long-term risk and insured losses.
Legislative & Funding Needs

• U.S. Forest Service Healthy Forest Initiatives
• Natural Resources Conservation Service (EWP)
• National Flood Insurance Program and Flood Insurance Affordability Act
• FEMA –Hazard Mitigation Grant Program (HMGP)
• Community Development Block Grant (CDBG) flexibility
• Stafford Act changes to include post-fire floods
• Army Corps of Engineers (Sec. 205 assistance)
• Department of Defense support for forest mitigation near Cheyenne Mountain and Air Force Academy
• EPA and watershed restoration and protection
• Emergency Planning/Pre-Disaster Mitigation Funding
• Transportation funding for needed mitigation
Collaboration and Working Together is the Key to Recovery.

Questions ?