Overview of the Flood Control District

Flood Control District
Six Jurisdictions Meetings
October 1, 2019
Presentation Overview

- Introduction of Key Staff
- Brief History of the District
- District Property Tax Levy
- Statutory Authority & Responsibilities
- Flood Mitigation Experience & Costs
- Forest Restoration
- FY2020 Budget Highlights
- Facilitated Discussion – Board & City/Town Elected Officials
Introduction of Key Staff

- Lucinda Andreani – District Administrator & Deputy County Manager
- Christopher Tressler, P.E., CFM – District Engineer
- Jay Smith – Forest Restoration Director
- John Carr – Engineering Supervisor & Interim County Hydrologist (manages National Flood Insurance Program (NFIP))
History of the District

- Formed in 1984
- Flagstaff, Page and Fredonia allowed to “Opt-Out” of the District – No tax collected from private properties in those jurisdictions
- Sedona – received tax collected from Sedona after deducting cost of managing the FEMA floodplain
- Williams – received entire tax collected from Williams (Williams manages its own floodplain)
- County administered FEMA floodplains in Sedona, Tusayan & unincorporated areas
History of the District

- Historically, FCD funded very limited number of projects
- Until Schultz Fire and Flooding in 2010...funds used to match federal funds to complete $30 million of Schultz Flood mitigation
- As completed Schultz, FCD invested in completing Initial Engineering Assessments for four FEMA Floodplain areas – Fort Valley, Mtn Dell, Kachina Village/Mountainaire & Munds Park
- Results identified two top priority projects – Mountain Dell & Munds Park
- Mountain Dell – slated for construction in spring 2020
- Munds Park – adverse impacts so project cancelled; evaluating post-wildfire flooding impacts
District Property Tax Levy

- Property Tax Rate capped at 50 cents per statute
- Initial Tax Rate – 8 cents
- Raised to 20 cents in 2006
- Increased to 40 cents in 2010 to address Schultz Flood area impacts & provide for funds for FEMA floodplain projects within the County’s NFIP jurisdiction
- Kept revenue flat at $2.7M in FY2019 and tax rate dropped to 18 cents given reaffirmation of boundaries
- FY2020 raised rate to 22.8 cents; Revenue = $3.6M to fund forest restoration and pay for North Schultz Flood repairs
Statutory Authority & Responsibilities

Josh Carden
Attorney at Law
Statutory Authority & Responsibilities

Boundary Affirmation by both Boards – May 15, 2018

- Advice from outside legal counsel – must conform to state statute and state constitution
- FCD tax now collected in Flagstaff, Page and Fredonia (began Fall 2018)
- Does not impact floodplain administration; County continues to administer floodplains in Sedona, Tusayan & Unincorporated Areas; Williams, Flagstaff, Page & Fredonia manage their floodplains
- Cities and towns can revert floodplain administration to the County at any time and County must accept responsibility; but cities & towns retain responsibility & liability associated with all prior constructed and planned projects
Statutory Authority & Responsibilities

- “Common benefit”
- FCDs not required to distribute funds to jurisdictions, but can and some do through various methods
- Reminder: Cities have separate authority to impose stormwater fees, and have other funding authorities to cover city expenditures
- FCD does not have the authority to regulate the floodplains within the jurisdictions that have assumed the responsibility through FEMA, which supports Councils in their role in managing development (Flagstaff, Page, Williams & Fredonia)
- FCD Board of Directors sets the priorities for the District
Flood Mitigation Experience & Costs

Christopher Tressler, P.E, CFM
District Engineer
History of Coconino County
Post-Wildfire Mitigation

- Schultz Fire and Flood Mitigation (2010 – 2015)
- Slide Fire and Flood Mitigation (2014)
- North Schultz Flood (2018 - 2019)
- Museum Fire and Flood Mitigation (2019)
SCHULTZ COMMUNITY RECOVERY

Restore. Revive. Renew. Through Partnership
Schultz Fire – High Burn Severity On Steep Slopes

- Total Burn Area: 15,051 ac
- Watersheds: 11 sub-basins
- High Burn Severity: 40%
- Some Sub-Basins Up To 70%
- Major Portions On Steep Slopes (>40%)
Devastating Monsoon Floods

- The death of a 12 year old girl
- Interior flooding of approximately 85 homes
- Damage to the City’s municipal water line, County Road & Drainage Infrastructure & Hwy. 89
- Thousands of tons of sediment flowed through and onto hundreds of private properties
- Over 55 Flooding Events Between 2010 - 2013
- Presidential Disaster Declaration
Schultz Flood Mitigation Projects

Copeland Ditch
Total Cost: $1,200,000
Funder: FHWA

Copeland Detention Basin
Total Cost: $5,301,000
Funders: FHA & FCD
Schultz Flood Mitigation Projects

Brandis Way EWP
Total Cost: $3,800,000
Funder: NRCS & FCD

Wupatki Trails EWP
Total Cost: $1,000,000
Funders: NRCS & FCD
Schultz Flood Mitigation Projects

Upper Campbell EWP
Total Cost: $2,200,000
Funder: NRCS, USFS & FCD

Paintbrush North EWP
Total Cost: $2,915,000
Fundrs: NRCS, USFS & FCD
Schultz Flood Mitigation Projects

Example - Paintbrush North & South Paintbrush

Individual Lot Mitigation Measures

Total Cost: $704,000  Funders: NRCS & FCD
Schultz Flood Mitigation Projects: Another Example – Individual Lot Mitigation Measures
Over $31 Million Invested in Long-Term Flood Mitigation between 2010 and 2019 by the County and its Funding Partners
Slide Flood Mitigation
Slide Fire Flood Mitigation

- Assessed over 250 properties
- 30,000 pre-filled sandbags; one mile of concrete and water barriers
- Communications with residents & businesses
- Cost over $700,000
North Schultz Flood Event
North Schultz Flood Event

- North Schultz Flood Event – July 18, 2018
- 1,000 Year Plus Rain event impacted the northern watersheds on the Schultz Burn Scar
- On- and off-forest flood mitigation significantly reduced flood impacts but mitigation sustained damage
- Emergency response provided by FCD
- Repairs necessary to mitigate future flood events and meet agreements with USFS & NRCS
- Total cost of response and mitigation $1.6M
Museum Flood Mitigation
Museum Fire

- Burned 1,961 acres
- Impacted the Spruce Avenue Watershed
- 52% of the watershed burned
- Of the total area burned, 53% burned severely and moderately = hydrophobic soils
- Much of the area is steep slopes
Museum Fire Flood Impacts

- Spruce Ave. Watershed flows through two rural developments in the County and three neighborhoods in the City of Flagstaff affecting over 400 homes and approximately 50 businesses
- Total property valuation is $303,000,000
Science-Based Approach to Flood Mitigation

- FEMA funded study identified Spruce Ave. Watershed at high risk for post-wildfire flooding
- Within 24 hours of the fire’s ignition, FCD worked with JE Fuller to update flood model using the best science available
- Within 48 hours we understood the level of hazard and began developing the emergency flood mitigation measures plan
- The plan was implemented beginning with the most hazardous area and addressed the type of type and level of hazard in each area
Museum Flood Mitigation

- Mitigated over 400 homes and about 35 businesses in just over two weeks
- 6,600 feet of concrete & water barriers
- Over 600,000 sand bags
- Significant debris & vegetation removal
- 15 Community Meetings
- Established Flood Monitoring System
- Total Cost = $1.8 Million
Museum Flood Mitigation

- Focus now – secure funding to invest in longer-term on-forest & private property mitigation above developed areas
- Improve drainage system in the city (limited opportunities)
Forest Restoration

Jay Smith
Coconino County Forest Restoration Director
Bill Williams Mountain
Coconino County signed a Master Agreement with National Forest Foundation (NFF)

FEMA funded Post Wildfire Flooding and Debris Flow study indicated 515 structures impacted, 14 critical facilities, including communications, as well as City Dam Reservoir.

NAU’s Alliance Bank Policy Institute study “Economic Impact of Post-Fire Flooding: Bill Williams Mountain” conservatively estimates $379 million to $694 million in regional economic impacts from post-wildfire flooding
Bill Williams Mountain

Phase 1:
300 acres of steep slope

Contractor Selected:
Markit! Forestry Management
Helicopter Logging to remove trees and dead and down woody material. Expect to be completed by January 2020
Post-Wildfire Risk Studies

- Studies slated for Mormon Mtn, Munds Park & Sedona/Oak Creek
- LIDAR flight completed; Post-Wildfire flooding analysis is underway
- Study results will identify potential steep slope restoration projects
- Rio de Flag – FEMA study included Upper Rio de Flag area; Extending analysis through Flagstaff to better understand flooding impacts
Air Curtain Burners
County Air Curtain Burner
Flood Control District
Fiscal Year 2020 Budget Highlights

Jeremy Floyd
Public Works Administrative Services Division Manager
Fiscal Year 2020 Budget Highlights

- FCD Board of Directors set budget priorities:
  - Forest Restoration – Bill Williams Mtn., Air Curtain Burner & Post-Wildfire Risk Studies for Mormon Mtn, Oak Creek/Sedona and Munds Park – Total = $1.08 Million
  - Sinclair Wash/Mountain Dell Drainage Project - $2.2 Million
  - National Flood Insurance Program & Operations/Indirect Costs - $390,000
  - North Schultz Flood Event Repairs - $611,000
- Total Expenditures = $5.03M
- Established an Emergency Reserve Fund = $182,000
FCD FY2020 Budget

- Resulting Revenue = $3.6 Million**
- Property Tax Rate = 22.8 cents
- Tax on $300,000 Residential Property equals $68.40 per year or $5.70 per month

** Does not include additional estimated AZDEMA reimbursement for the North Schultz Flood Event - $777,000
Wildfires & post-wildfire flooding are huge risks to residents, communities, our economy and the solvency of the District – the only way to stop the “bleeding” is forest restoration. The District cannot sustain the constant financial impacts...

Funding through the District is not infinite...however, capacity does exist, but capacity also exists within the cities and towns through stormwater fees, potential property taxes and sales tax initiatives.

Managing flood threats and impacts can only be successful through partnerships, mutual support and longer-term vision.
Facilitated Discussion

Allie Stender
Facilitator
Facilitated Discussion

Questions:

- The FCD Board of Directors has identified forest restoration as the top priority for the FCD. Do you have any questions about why and how this is the top priority?
- In light of the contextual information just provided, what should be included in the vision for the FCD over the long term?
- In order to achieve the best outcomes, what does the partnership between the FCD and Cities & Towns look like?