

Forest Restoration is Critical Initiative for Coconino County

Coconino County recognizes that wildfire and post-wildfire flooding are the greatest public safety threats to its residents, businesses, economy and financial solvency. The County also recognizes that a strong forest industry is key towards mitigating these threats.

The Coconino County Board of Supervisors, as the Board of the Flood Control District (FCD), has established a Forest Restoration Initiative as a top priority to help address these threats. To lead this critical initiative, County leadership recently hired a Forest Restoration Director.



The Forest Restoration Director serves as an important facilitator and liaison, linking County interests and assets with broader regional restoration efforts such as the Four Forest Restoration Initiative (4FRI) and the Flagstaff Watershed Protection Project (FWPP). By working collaboratively with various stakeholders including non-profits, regional, state and federal agencies and private forest industries, the Forest Restoration Director also will identify new opportunities to improve and increase the amount of forest restoration implementation in Coconino County. In addition to industry recruitment, these areas of focus include:

- Identifying high-priority areas in the County that need restoration and fuels reduction activities by both the U.S. Forest Service (USFS) and private contractors
- Pursuing Stewardship and Good Neighbor Authority Agreements with the USFS
- Identifying securing forest restoration grants and funding
- Utilizing innovative technologies to streamline restoration activities and to share expertise and knowledge of forest restoration practices to improve the overall efficiency of these efforts



While the goal of Forest Restoration is to reduce the risk of catastrophic wildfires, there are many associated benefits that come with it. Benefits from forest thinning include increased water yields, increased carbon sequestration, healthier and more vigorous forest, increased wildlife populations and lastly the economic benefits of forest industry and job creation in rural areas.

Coconino County Pre-Fire Studies of Post-Wildfire Impacts

Coconino County continues to play an integral role to assess and prioritize future threats of wildfires and post-wildfire flooding as well as the economic impacts of these disasters. Building off the County's legacy following torrential flooding from the 15,000-acre Schultz Fire in 2010, two recently completed studies support Coconino County's goal of setting forest restoration as the top priority for the FCD given the public safety risk and associated significant economic and financial impacts of wildfires. Both studies support the County's goal to comprehensively address the challenges of wildfire and post-wildfire flooding into the future:



The ***Post-Wildfire Debris-Flow & Flooding Assessment*** study identified areas within the County that are at high risk for flooding and debris flows in the aftermath of a wildfire. Funded in part by the Federal Emergency Management Agency (FEMA), this study consisted of a Countywide evaluation of post-fire flood and debris flow hazards. The study also included in-depth evaluations of two areas that are at very high risk to post-wildfire flooding: Fort Valley and the City of Williams. The evaluations quantified the risks in these areas and identified potential mitigation measures that could reduce these hazards.



Study results show that up to one third of homes, buildings and critical facilities and public infrastructure in these areas are at some level of increased risk of post-fire flooding and debris flows if no actions are taken to reduce the risk of severe wildfires. Modeling results for the Williams Pilot Area indicate that post-fire flows in Cataract Creek, which runs through Williams, may be up to five times higher than pre-fire discharges with up to a 350 percent increase in the number of buildings in flood-prone areas. The modeling results for the Fort Valley Pilot Area similarly indicate that a fire on the face of the San Francisco Peaks may cause the watershed to produce flows that are up to five times higher than pre-fire discharges in Fort Valley with up to a 250 percent increase in the number of buildings in flood-prone areas, which also would severely impact public infrastructure. Study results also indicate that if forest restoration initiatives are implemented to reduce the risk of severe wildfire, then the potential for severe post-wildfire flood and debris flows in these areas also would be significantly reduced. However, treatments such as forest thinning must involve entire watersheds to maximize the treatment benefits. Other recommended risk mitigation actions include implementation of new development guidelines; creation of emergency action plans to streamline post-wildfire recovery efforts and public education activities to build community awareness and support for safe development and mitigation efforts. For more information about this study please visit www.coconino.az.gov/PostWildfireStudy.

The Northern Arizona University (NAU) Alliance Bank Economic Policy Institute (EPI) study of the ***Economic Impact of Post Fire Flooding: Bill Williams Mountain*** focused on the economic impact of post wildfire flooding to the City of Williams resulting from a wildfire on Bill Williams Mountain. Commissioned by the FCD, the study estimates that the economic impact from a catastrophic wildfire and the post-wildfire flooding in the Bill Williams Mountain watershed (City of Williams and downstream) is between \$379 million and \$694 million. The estimated cost of forest restoration on Bill Williams Mountain is approximately \$8 million. The response to a fire would incur immediate expenses, including suppression, post-fire rehabilitation, evacuation and repair costs. Short- and long-term impacts of a catastrophic fire include the loss of sales tax revenue, tourist revenue, business revenue, and repair costs to railroads, highways and facilities. For more information about this study please visit www.coconino.az.gov/WilliamsPostWildfireEconomicImpact.

