



Forest Health and Water Supply Protection Project

Ballot Question #405

Question & Answer Sheet #1

8 Aug 2012

Why is this project needed? Forests of the Intermountain West are threatened by a convergence of two significant factors: unnatural overstocking with small trees and weather conditions that contribute to the increasing severity, size and frequency of catastrophic wildfire. The combination of excess forest fuels (both surface fuels and excess trees); combined with the certainty of lightning- and human-caused ignitions, guarantee there will always be fire in our forests.

A Flagstaff municipal bond issue would provide financial resources and voter support towards tackling those challenging elements of restoring forests within these high threat areas, providing greater protection for the Flagstaff community from the health, public safety and economic impacts of fires and floods.

The bond project will provide value added to two areas: The Rio de Flag and Lake Mary Watershed. Two specific and significant threats are posed by the poor health of Flagstaff's adjacent forests present in these two areas.

- Failure to restore forest health in the Rio de Flag Watershed, primarily within the Dry Lake Hills area immediately north of Flagstaff presents risk of crown fire and subsequent increased risk of flash flooding causing significant economic and infrastructure damage to Flagstaff and affecting people in the areas of Downtown, Sunnyside and NAU.
- Failure to restore forest health in the Lake Mary Watershed area south of Flagstaff threatens the availability of the City's water supply in the event of a forest fire and subsequent flooding. Ash and sediment flowing into Upper Lake Mary, from which the city receives 50% of its drinking water, could render the lake unusable and result in increased water treatment costs.

What is the City's role? The City of Flagstaff will have primary oversight to the bond funded project. Working with the U.S. Forest Service and other private and non-profit partners, the City will have a key role in the planning, the implementation and the monitoring to ensure the project has the intended effect and taxpayer dollars are used efficiently.

Where will this project take place? Primarily the project will take place outside the City, mostly on Coconino National Forest, but will also include AZ State Land. Efforts within the Rio de Flag watershed will occur mostly in the Dry Lake Hills area, located immediately north of, and within sight of, much of town. Additional project work will take place within the City, focused primarily on Observatory Mesa near Lowell Observatory. Project efforts within the Lake Mary watershed will take place south of town, between Lake Mary and Mormon Mountain.

Shouldn't the State or Federal government be doing this work? In 2012, the federal

government allocated over \$16 million to Northern and Eastern Arizona National Forests for similar work, including funding for forest treatments in the two threatened watersheds. The AZ State Forestry Division is also providing staff and assistance. While this assistance will help, it will not accomplish the bond project outcomes because current Federal funding does not address some of Flagstaff's most vulnerable areas for at least 10 years.

Are there other communities with similar projects? Yes – both the Denver (CO) Water Board and the City of Santa Fe, NM have similar programs. Both have been underway for several years, and both are highly successful.

What is the probability that severe fire and flooding will occur if nothing is done? It is highly probable that the headwaters of the Rio de Flag will burn under high severity within the next 20 years. The headwaters of Lake Mary, as well as the areas contributing to groundwater recharge for the City of Flagstaff's well fields are similarly threatened. Research and experience tell us that we face a high probability of severe wildfire and flooding events occurring in the near future if preventative, pro-active, and risk reduction mitigation work is not completed soon. Locally, following the 2010 Schultz fire, devastating flooding occurred in the Timberline and Doney Park areas, and threatened the City's Cinder Lake Landfill.

By conducting ecologically appropriate thinning and burning, the occurrence and cost of unnaturally large and damaging wildfires can be greatly reduced. Research and experience have shown that acres burned and associated costs are exponentially reduced in treated areas as compared to non-treated areas.

Who in the City would be affected by the fires and flooding? Fire could immediately impact every City resident and visitor, to include evacuation, heavy long-duration smoke, potential neighborhood damage or loss, devastation of our cherished scenic view, and decline in business activity, home values, and tourism revenue. Flooding in the Rio, coming from the watershed being severely-burned, is estimated to be upwards of ten times the 100-year flood event, posing risk to many neighborhoods throughout the community, including Cheshire, Coconino Estates, downtown, Sunnyside, and damaging much of the NAU campus. Fires and subsequent flooding at Lake Mary would result in loss of storage capacity in the reservoir and impact water quality. These impacts would require the City to immediately seek alternate water sources (new wells) or incorporate significant engineering and filtration redesigns into the Lake Mary Water Treatment Plant.

To fully calculate the costs associated with unnatural wildfires, the impacts to watersheds, ecosystems, infrastructure, businesses, tourism industries, individuals, and the local and national economy must be included. When all damage is considered, the true costs of wildfire become astronomical and are shown to be 2 to 30 times greater than the fire suppression costs that are usually reported. In a 2003 study conducted by the City of Flagstaff and Greater Flagstaff Economic Council determined the negative economic impact of a serious fire (not including subsequent flooding impacts) in Flagstaff that destroyed 300 homes was predicted at over \$60 million.

Will this project help to protect my family, home, and neighborhood? Yes. Our local experience has shown (Woody and Hardy fires), and experience throughout the Western U.S., that properly planned forest treatments have a significant effect on slowing and decreasing fire severity and subsequent flooding. In the absence of such treatments, fires can easily transition

into destructive events such as the Rodeo-Chedeski, Schultz, and Wallow fires.

What is meant by “forest treatments”? Primarily selective removal (thinning) of excessive trees, focused on small-diameter trees, debris (slash) disposal, followed by controlled burning to remove remaining unwanted material and reinvigorating grass, flowers, and shrub growth.

Does the wood have any commercial value? In some cases, it will, which will help reduce the treatment costs. But in many other areas, due to small size, steeper slopes, and difficulty of removing the material, it will not.

Aren't others already planning to do forest treatment work in these areas? Parallel with this proposed project is a regional undertaking known as Four Forest Restoration Initiative (4FRI). This 20 year effort, to restore over 2 million acres of northern Arizona pine forests over 20 years, was funded by the Federal Government in 2012. Furthermore, a contract was awarded in May 2012 under 4FRI to thin 300,000 acres throughout the greater Flagstaff-Williams area within the next 10 years.

Working with the Coconino National Forest, other large areas adjacent to, and within, these two critical watersheds are also planned for treatment. The City actively supports, the Greater Flagstaff Forests Partnership (GFFP), which is active in helping plan forest treatments and providing assistance for work on private lands within the area.

Would additional fire restrictions alleviate the threat? Annual restrictions can certainly help reduce risk. However, unwanted wildfire (and subsequent flooding) can occur from any number of sources – natural or human-caused. A majority of forest fires in the Flagstaff area are ignited by lightning.

What exactly will the City bond funds do? The funding will *Accelerate*, *Leverage*, and *Expand* other planned treatments in these two watersheds. Specifically, the bond project will provide added value:

- 1) Rio de Flag Watershed – permit an additional 6,780 acres of treatments to occur, (leveraging the 2,360 acres of currently planned, 4FRI-sponsored, treatments that will also occur), and
- 2) Lake Mary Watershed – permit an additional 4,000 acres of treatments to occur (leveraging the 32,000 acres of currently planned, 4FRI-sponsored treatments that will also occur).

Who else is going to help plan, conduct, and monitor this project? In addition to U.S. Forest Service, AZ State Forestry, 4FRI and GFFP, assistance has been provided by Northern Arizona University (Ecological Restoration Institute, School of Forestry, and Geology Department), the Grand Canyon Trust, The Nature Conservancy, Friends of the Rio, along with Summit, Highlands, and Mormon Lake Fire Districts. In addition, Coconino County Rural Environmental Corps and Arizona State Department of Correction crews are likely to participate. Finally, some of the work will be completed by private, professional tree service, logging, or forestry companies.

When will work begin, and end? If approved, project planning efforts will begin immediately, while field operations most likely will not occur until spring/summer of 2013. Once underway, completion of initial treatment activities for the 10,780 acres of City-sponsored bond project (6,780 acres in Rio de Flag and 4,000 acres in Lake Mary) will take an estimated 5-8 years.

Are there any plans to maintain the project, after the initial treatments are done? Yes. To

protect the City's investment, and to ensure the continued health of our forests and watersheds, routine, on-going maintenance of the treatments will be required. Maintenance is far less expensive than initial treatment work, will not begin until 7-10 years after completion of the initial work, and is not part of this bond question.

Where can I find additional information on this Question? For more detailed information on the Forest Health and Water Supply Protection Bond Question visit the City website at: www.flagstaff.az.gov/bondinformation. You can also refer to your Voter Information Pamphlet or contact Flagstaff Fire Dept at (928)-213-2500 or by email at flagfire@flagstaffaz.gov