

**CITY COUNCIL REPORT  
PUBLIC**

DATE: April 6, 2016  
TO: Mayor and Council Members  
FROM: Paul Summerfelt  
CC: Josh Copley, Barbara Goodrich, Shane Dille, Leadership Team  
SUBJECT: Wildland Fire Management

City Council, at a recent budget retreat, inquired as to the wildland fire threat and fuels treatment efforts within the City.

**OVERVIEW:**

The City of Flagstaff's Wildland Fire Management program is comprised of five core areas, plus multiple special projects and supporting activities, each interacting with and dependent upon the others. Together, these operate as an interconnected system: it is difficult to separate one from the other in operational terms. In addition, we operate both within the City and outside the City as needed: damaging wildfire and healthy, sustainable forests do not respect jurisdictional boundaries, and community well-being is dependent upon the absence of the former and the presence of the later. The effort has earned distinction as a national model and has proven highly effective in reducing wildfire threat and risk, protecting our forests, values, and infrastructure, and ensuring public safety. Broad public support, as well as engagement of multiple partners, is a hallmark of the program.

**PROGRAM STAFFING:**

Today, the program is staffed by three FTE's (Wildland Fire Management Officer, Firewise Specialist, and Crew Supervisor) and one Temporary employee (FWPP Operations Specialist). (Two FTEs lost in the recession have not been restored). We also employ seasonal crew members: two 4-5 month crews each year, with 10-14 members in the summer and 2-4 members in the winter.

**PROGRAM ACCOMPLISHMENTS:**

Hazard Mitigation is the most visible activity we undertake, so it makes some sense to focus on it. Since our effort began in 1998, we have conducted the following activities:

<b>Activity</b>	<b># Parcels</b>	<b>Acres</b>	<b># Trees</b>
Home Assessments	1548		
Properties involved in following activities:	851		
• Forest Stewardship Plans		7,304	
• Tree Marking	319	4,517	
• Thinning/Harvesting	431	12,147	2.4M (est)
• Prescribed Fire			
○ Pile	254	5,620	
○ Broadcast	55	3,200	
• Chipping	30	962	
Hazard Tree removals			2,318

## **PROGRAM CHALLENGES AND GAPS:**

When viewing the Program Accomplishment (Hazard Mitigation) table above, some cautions are in-order:

- 1) Home Assessments: Of the total # of parcels (1,548) which have been assessed, 88% (1,360) were done prior to 2010. Due to changes in vegetation, ownership, and upkeep, those done prior to this date are considered outdated and no longer valid.
- 2) Forest Stewardship Plans: Of the total # of acres (7,304) where plans have been completed, 25% were done prior to 2010 and need to be refreshed. An additional 9% will move into this category by next year. The biggest shortfall currently, however, is our delay in preparing Prescribed Fire Plans, of which we currently have over 1,000 acres waiting to be planned, necessary before implementation work commences.
- 3) Thinning/Harvesting & Prescribed Fire: These parcels and acres are NOT cumulative. Acres reported as Thinned/Harvested and then as Prescribed Fire, are in many cases, the same acre. What is cut in one year may be burned the next (pile), then burned again (broadcast) at a later date. In addition, the acres shown reflects almost exclusively initial, first-entry work. Trees grow and fuels accumulate, and treatment effectiveness is lost over time. Without a timely and purposeful effort to re-enter and re-treat acres as needed, gains made can be lost.

We anticipate the need to conduct initial first-entry thinning efforts on 100-250 acres each year simply to maintain forward momentum and meet needs. Typically, thinning is good for 15-30 years before maintenance treatment is required. Of the total # of acres (12,147 / 18.98 sq. mi.) thinned, 58% is now 10+ years old, edging ever-closer to the need to revisit the sites. (Not all acres will need to, or can, be retreated: it depends on level of initial treatment, ownership, etc. but it is anticipated that roughly 1/3-1/2 (4049-6,074) of all acres thinned will need to be retreated beginning within 5-10 years)

Pile burning is largely a one-time event, conducted within 1-2 years of the completion of any thinning operations. Some second-entry pile burning will need to occur as those older thinning acres need to be retreated.

Broadcast burning, on the other hand, is another story: it is far more labor intensive (in both planning, permitting, implementation, and monitoring than pile burning. This treatment is good for only 7-10 years before reapplication of fire is required. The benefits are two-fold: reduced fire threat, and improved ecological function (i.e. – forest health and sustainability). We currently have 1,500 acres awaiting initial treatment. Of the total # of acres broadcast burned (3,200) to-date, 72% are now 6+ years old, and some are beginning to enter the phase when re-burning will be necessary. (Not all acres will need to, or can, be retreated, but it is anticipated that roughly 1/2-2/3 of all acres initially broadcast burned (approximately 1,600-2,133 acres) will need to be retreated beginning within 2-4 years)

- 4) Hazard Tree removals: Of the total # or removals (2,318), 73% have occurred since 2010. Application of De-Icer during the winter certainly has played a large role in the spike over the past few years: we believe tree mortality from this chemical has begun to decline (City stopped application 2-3 years ago), but we are still experiencing the effects and are likely to do so for another 1-3 years. Construction and other type damage also plays a continuing role, along with drought and follow-on insect and disease attacks adding to the annual total. As long as we have trees, we will continue to have those

needing removal for public safety reasons. (In F.Y. 16-17, no funding will be available for contract services for hazard tree removal. The Division will continue to remove trees within its capabilities.)

In addition to those Hazard Mitigation metrics identified above, we face challenges and gaps in other areas as well, all of which feed directly into Hazard Mitigation accomplishments:

- Seasonal Workforce & Crew Leadership – a heavy reliance upon a seasonal workforce places us in continual recruiting and training mode, limiting efficiency. Lack of a consistent FTE presence and skill-set (EMT, decision-making, engagement with public, etc.) with the crew on a routine basis leaves us vulnerable to judgment error, shortfall on standards, and safety/medical oversight. Additionally, the regulatory requirements of the Affordable Care Act and the Public Safety Retirement System have greatly diminished the value and effectiveness of seasonal workforces.
- Prevention – engagement with service groups, community partners, and social media and general outreach efforts;
- Preparedness – Firewise Neighborhood program, website and mapping updates, Ready-Set-Go program; outreach efforts to engage property owners and treat their properties;
- Hazard Mitigation – Documentation of key job-site metrics (ie – tree diameters being removed and protected), routine weed and brush abatement efforts on city properties;
- Response – City/County Emergency Operations Center participation, engagement in fully-reimbursable handcrew wildfire assignments;
- Recovery – Fire billings.

On the flip side, workload has increased. Examples include:

- Complexity and volume of reimbursable fire billings (FY16 was, to-date, 30 separate incidents totaling over \$1M);
- Sole management of the state/national Incident Qualification System database (previously administered by the State);
- Overall program management and interagency coordination of the Flagstaff Watershed Protection Project effort;
- Engagement with the Four Forest Restoration Initiative;
- Additional grant/contract management and reporting requirements;
- Engagement with developers and contractors via Wildland-Urban Interface Code.

The public has experienced delays in service as a result of the aforementioned increases in service requests and support requirements placed upon WFM staff.

### **CONCLUSION:**

Flagstaff's has a unique Wildfire risk profile. We have a successful, and highly-respected program, which has enjoyed tremendous public and community support. We've attempted to meet some of these challenges through a variety of means, but have enjoyed only marginal success. We, like many City operations, face challenges and gaps as we strive meet the service expected of us.

**RECOMMENDATION / CONCLUSION:** This report is for information only.