

Arizona Department of Forestry and Fire Management

The Arizona Department of Forestry and Fire Management (DFFM) Urban and Community Forestry (U&CF) and Forest Health programs work in many different forest types on a multitude of topics and at a variety of scales. DFFM participates in Aerial Detection Surveys to assess the condition on millions of acres of forest each year as well as conduct insect trapping on individual trees in municipal parks to monitor known pest populations and get in front of new ones. DFFM provides education, outreach, and technical assistance to homeowners, large and small cities, and at large conferences. The DFFM grant programs provide financial assistance for projects ranging from tree plantings in small towns to landscape restoration and invasive species removal. The resources, programs, and people of DFFM impact forestry in Arizona at almost every level: healthcare, education, equity, management, public awareness, planning, and long-term forest resilience.

To raise public awareness about trees and forests, DFFM has several outreach, education, and technical assistance programs. One example is the Magnificent Trees Program that recognizes outstanding examples of tree species throughout Arizona. The public is invited to nominate trees in different categories: Champion Trees, Witness Trees, and Heritage Trees. To be a Champion, a tree has to measure as the largest of its species on record. Witness Trees are those that are proven to have been in their same location since before Arizona Statehood while Heritage Trees are celebrated for their cultural significance. The Magnificent Trees program serves to connect the public to the amazing trees in Arizona. In 2018, this program was expanded to include a Tree Registry and a conservation education activity for youth.

DFFM also offers several grants¹ including Community Challenge Grants, Tree Resource Enhancement and Engagement (T.R.E.E.) grants, and Western Bark Beetle Initiative grants. These grants support projects ranging from tree plantings of all sizes to landscape restoration to educational programs and trainings. In 2018, one of the Community Challenge grantees was awarded the Crescordia Award for Environmental Excellence for designing and implementing a desert food forest. The project introduced residents and visitors to the Sonoran Desert's array of over 100 water-wise edible plants and showed them how those plants, with their alternating fruiting seasons, can produce year-round food for both people and wildlife.

DFFM Forest Health programs work with partners to detect, monitor, and respond to insects and diseases that threaten Arizona forests. In addition to flying millions of acres every year to collect data on forest condition, DFFM performs trapping to get in front of emerging threats. For example, the Mediterranean Pine Engraver (MPE), which is native to Eurasia from Spain to China, was first identified in North America near Fresno, California in 2004. In May 2018, DFFM began monitoring traps in Phoenix for this threat. In the first year, traps were set at five locations and got over 300 individuals at one site alone. In 2019, trapping efforts were expanded to 16 locations. In one month of trapping, over 2,500 individuals were detected across most of the sites. Another example is the emergence of an Aleppo Pine Blight, which was first brought to DFFM attention in January 2018. Samples taken for fungal analysis by DFFM and USDA Forest Service identified a common pine feeding mite as a possible cause. Blighted trees have shown to re-flush new needles each spring. Research and analysis will continue.



Blighted Pine. *Photo Credit: Steve McKelvey, DFFM*



Working with schools to inspire the next generation of tree stewards. Photo Credit: Cori Dolan, DFFM

DFFM also takes an active role in emerging national programs, such as the Arbor Day Foundation's Tree Campus USA K-12 Program. Working with schools in AZ, DFFM provides valuable information to the Arbor Day Foundation on their new national recognition program. Tree Campus K-12 inspires the next generation of tree stewards through experiences that bring the benefits of trees to life both inside and outside the classroom.

Finally, DFFM continues to provide resources and support to municipalities, homeowner associations, schools, and other groups that see the value in proper tree care. A recent example includes the Shade Tree Planting Prioritization Map³ which strategically assesses Arizona's urban forest communities to inform planning and identify Arizona's underserved cities and communities based on state-wide, best available, and relevant socio-economic and environmental data. This map has been used by the city of Phoenix to identify a low-income, low-canopy area and implement tree plantings. DFFM also hopes to partner with private companies and organizations like the Arbor Day Foundation to use the map to plant trees where they are needed most.

- 1 https://dffm.az.gov/grants
- 2 https://www.arborday.org/programs/tree-campus-k-12/
- 3 https://dffm.az.gov/2017-shade-tree-planting-prioritization

FOR MORE INFORMATION

Arizona Department of Forestry and Fire Management
Urban and Community Forestry: https://dffm.az.gov/forestry-community-forestry/urban-community-forestry
Forest Health: https://dffm.az.gov/forestry-community-forestry/forest-health