

Did You Know?

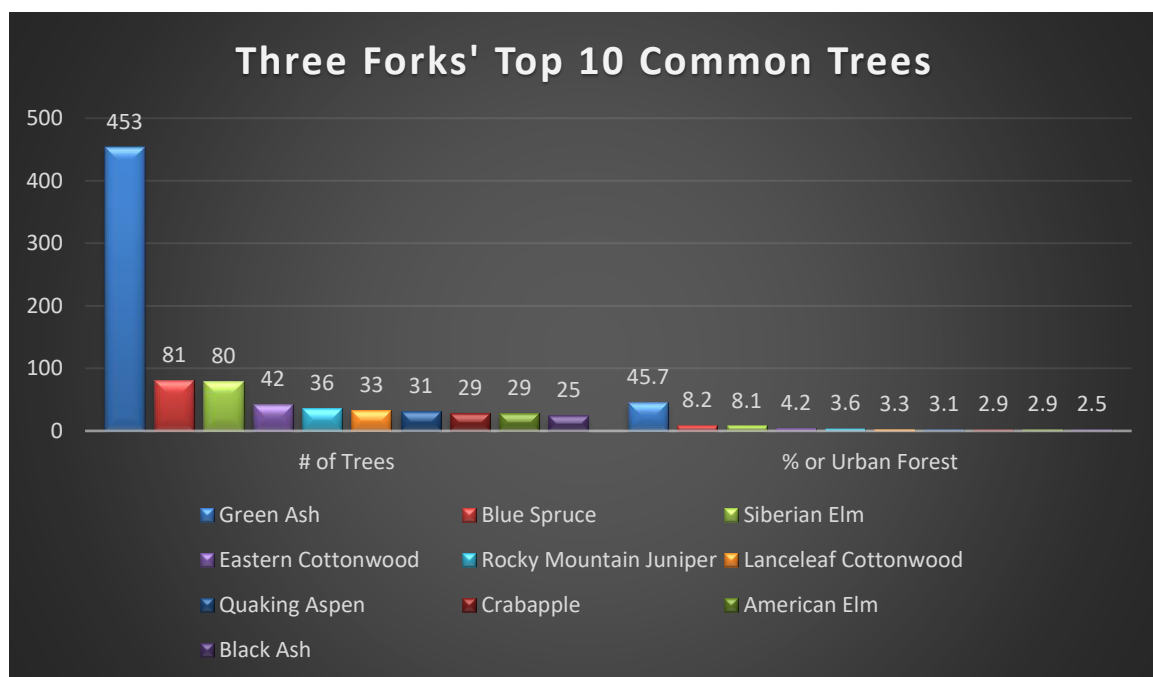
Wow! What a quick summer that was. Anyone else feel like it finally stopped raining and we immediately had to start pulling hoses around to water the lawn and trees...and then immediately need to mow and trim limbs because their growth just took off?!

Along the lines of June's "Did You Know?" article regarding vegetation management, now it's time for us to be planning to trim our trees. The sap is pulling away from the surface, the tree is starting to winterize itself and go dormant.

I had the privilege of working alongside two DNRC employees a couple summers ago and helped take inventory on the trees in the public right-of-way. We gathered data on 992 trees, mostly along the boulevards, but within city parks too. I learned how to identify the various species we have, helped measure their "dbh" (diameter at breast height), log data about dieback, insect and disease presence and other defects. I only helped take inventory on 1st Avenue East. The DNRC folks did the rest and sent us the data via GIS files so we can map and track changes in the future.

Learning about trees got me all revved up to hire an arborist to ensure my large trees were healthy (pruning and treating for insects) so I could enjoy the trees' benefits for many years to come.

I was amazed to learn the sheer number of different species we have growing here (38 to be exact), and to learn that a diverse population promotes a healthy environment for our community.



“A common recommendation is that the urban forest should not be comprised of >20% of any one genus, or >10% of any one species. The species distribution [above] exhibits a serious overabundance of ash (green ash - 45.7%, black ash – 2.5%) based on this guideline. Blue spruce and Siberian elm account for over 8% of the distribution, so are nearing maximum suggested abundance. It will be important for Three Forks to continue to diversify its species distribution with future plantings. The future planting of more ash, blue spruce and Siberian elm is not encouraged,” said Karen Shelly of DNRC in her report to the City of Three Forks in 2016.

Don't Think Trees Matter?

Ensuring trees on your property and in the public right-of-way are healthy will help us all enjoy the benefits a tree provides. [Ordinance #5-7](#)'s purpose states it is to “...regulate, control and prohibit conditions that contribute to community decay on or adjacent to all public roadways...” That reads a little like a reprimand to me, but there are many health and economic benefits to having healthy trees around your home and in our community which are not stated in Ordinance #5-7's purpose:

1. Trees provide clean air by producing oxygen and intercepting airborne particulates.
2. They provide shade which helps us conserve energy - keeping our homes cool without the use of air conditioning.
3. Trees provide important habitat and shelter for many animals and birds.
4. They even serve as a natural windbreak which can reduce residential heating costs by 10-15%.
5. Urban forests promote beneficial water quality via filtration and retention.

According to [canopy.org](#), “Access to trees, green spaces, and parks promotes greater physical activity, and reduces stress, while improving the quality of life...” They go on to say, “Studies show that urban vegetation slows heartbeats, lowers blood pressure and relaxes brain wave patterns.” (No wonder kids love climbing trees and building treehouses! We shouldn't outgrow this admiration!)

Based on the 992 trees inventoried and analyzed by USFS and Davey Resource Group's iTree software, the following ecological and economic benefits are provided by the Three Forks' urban forest each year.

| | Greenhouse Gas Benefits | Water Benefits | Energy Benefits | Air Quality Benefits | Property Benefits |
|------------------------------|-------------------------------------|-----------------------|------------------------|-----------------------------|--------------------------------------|
| Monetary Savings | \$3,080.99 | \$21,113.47 | \$18,330.77 | \$2,535.21 | \$123,703.69 |
| Environmental Savings | 242,850 CO ₂ avoided | 1,954,951 gallons | 126,372 kWh | 931 pollutants | 164,344 sq. ft. of leaf surface area |
| | 201,456 CO ₂ sequestered | | 11,354 Therms | | |

That is a total of \$168,764.13 in total annual benefits just in Three Forks!

Improving Three Forks' Resources

Since almost half of Three Forks' tree population is green ash, one of the ways we can improve our urban forest is to replace those ash trees with another recommended species as they die off or as we remove them.

We all can help by regularly pruning, watering and taking location into consideration when re-planting or planting new trees.

Pruning and training trees while they are young is more cost effective than waiting until severe problems are evident. Dead, overgrown and crossing or rubbing branches should be removed. Trees that show dieback and have **hanging dead branches over the sidewalk and street should be pruned for public safety** (Ordinances #5-7-3A and 5-7-3B) as well as for tree health and aesthetics. Topping trees is never a proper pruning choice. More information on pruning, training and shaping methods can be found on the [Arbor Day Foundation website](#).

Watering - It is important for trees in urban or community settings to receive adequate water to ensure proper establishment and vigor. Under-watered trees are susceptible to stress and decline, leaving them vulnerable to insects and disease. New trees need regular, thorough watering. Water at least weekly the first two to three years depending on weather conditions. During very dry periods watering frequency may need to be increased depending upon soil types. Insufficient irrigation leads to dieback which can lead to poor structure in the future. Conversely, soil saturated with water for extended periods of time can prevent roots from getting oxygen. Watering too much can be just as injurious to tree health as too little water.

Planting - A key to gaining the benefits from trees is to select appropriate trees and plant them in proper locations. Considerations when planting include the mature size of the tree, hardiness, location and soils conditions, any exceptional irrigation, light and fertilization needs, and the purpose for which the tree is being planted. Planting spaces, including sidewalk cutouts, should be large enough to accommodate the future mature tree, at least 4-5 feet wide for large trees.

TIP:

When purchasing a tree make sure and tell the nursery where you live. Many know our soil type(s) and will make recommendations of the type of tree you purchase to ensure your new tree will live a long life.

The right tree planted in an appropriate place will safeguard against future suboptimal maintenance practices like removing branches conflicting with power lines. Make sure newly planted trees are mulched to minimize grass and weed encroachment, decrease likelihood of mower and weed eater damage, help maintain soil moisture levels, and in the long term, increase soil fertility.

| | |
|--|--|
| Along the boulevards some recommended deciduous species include: | Species that perform well in parks or large, non-street landscape designs are typically conifers like: |
| <ul style="list-style-type: none"> • Honey locust • Hackberry • Linden • Serviceberry • Hawthorn • Crabapple • Buckeye • Horse chestnut • Black walnut • Boxelder and other Maples, and • Bur oak | <ul style="list-style-type: none"> • Rocky Mountain juniper • Lodgepole pine • Douglas fir, and • Ponderosa pine |

Future Concerns

Although Emerald Ash Borer (EAB) has not yet been discovered in the State of Montana, EAB is a serious threat to all of Montana's ash trees. With 48% of the trees in Three Forks being ash, it is important to begin planning for the impact of this invasive species. A future EAB infestation will have a significant impact on the community's forest, reducing the community's tree population by nearly half.

To find licensed business providing tree care visit our website at <https://www.threeforksmontana.us/licensed-businesses>, hover over "Links" and click on "Licensed Business" or give us a call at 406-285-3431.

TREE BENEFIT FUN FACTS

- TREES PROVIDE INVITING AND COOL AREAS FOR RECREATION AND RELAXATION SUCH AS PLAYGROUNDS AND PARKS
- TREES CREATE A TAPESTRY OF COLOR AND INTERESTING FORM THAT CHANGES THROUGHOUT THE YEAR
- THE COLOR GREEN IS CALMING AND RELIEVES EYE STRAIN
- TREES SCREEN UNATTRACTIVE VIEWS AND SOFTEN THE HARSH OUTLINE OF MASONRY, METAL, ASPHALT, STEEL AND GLASS
- PEOPLE WALK AND JOY MORE ON SHADED STREETS, WHICH ENCOURAGES INTERACTION WITH NEIGHBORS AND IMPROVES THE SENSE OF COMMUNITY
- TREES ABSORB AND BLOCK SOUND, REDUCING NOISE POLLUTION BY AS MUCH AS 40%