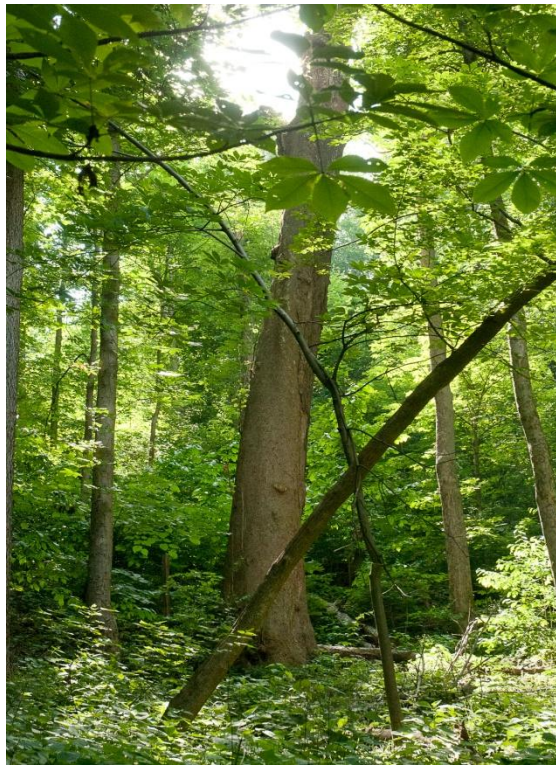




Let's Talk About Our Forests

It might be surprising to many that Fort Thomas still has about 1135 acres of forested land (31 percent of the city). Only 133 acres of our forests are preserved in Fort Thomas' parks. Most of the rest are on private lands. We usually think of forests in terms of their aesthetic and recreational value or how they increase the value of our homes. Yet forests are much more than that. They are an important natural resource affecting our air and water quality, storm water runoff, land stability and soil erosion as well as wildlife and habitat diversity.

How we as a community and individuals manage this natural resource in ways that benefit us all must be founded on a clear understanding of the quality of the forests in our city. Not all forests are equal in the ecological quality they embody or in the services they provide to humans. In fact **less than 300 acres of Fort Thomas' forests are considered medium or high quality**. In the absence of forest quality data, these rare forest resources (a century or more in age) are often overlooked or inappropriately considered in the planning and management of land use.

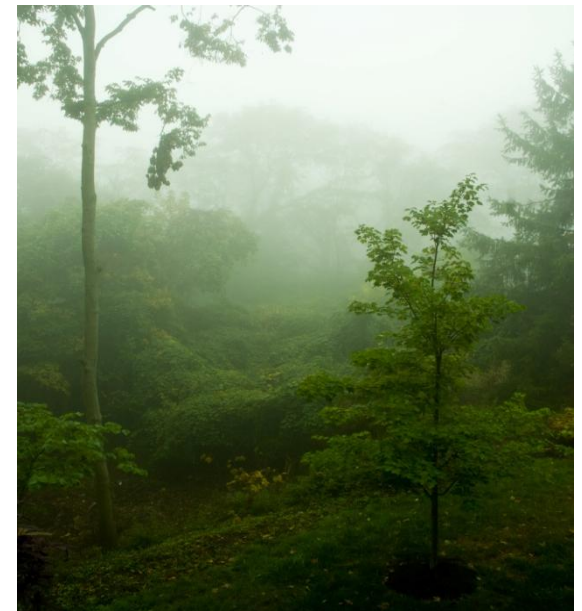


Measuring the quality. Tree crown size, measured by aerial photographs, is the most representative indicator of forest quality. Fort Thomas has all three tree crown classes – small, medium and large – which correspond to Low, Medium and High forest quality ratings. Specific crown ratings are important because each category correlates to tree age, girth, level of past site disturbance, rainfall interception and absorption, and the presence and extent of native or exotic species.

The Makings of a Low Quality Forest. Small crown forests in Fort Thomas generally are less than 50 years old and relatively more disturbed by human activities than our larger crown forests. Most of them likely developed from lands deforested and farmed over a century ago then abandoned as farm life waned. They emerged

from soil that lacked seeds of native plant species, so besides being of smaller stature these low quality forests are less diverse, have an abundance of invasive plants, diminished wildlife potential, and few to no uncommon or rare species and habitats.

Low quality forests in northern Kentucky are typically dominated by “early successional native species” like black locust, box-elder, red elm, white ash, hackberry and honey locust. These trees propagate by wind-dispersed seeds. Higher quality trees like oak and hickory, with heavier and less widely dispersed seeds, are few or absent. The small crown forest has **low ecological quality** rating because the seed bank of native woody and herbaceous species is depleted and the shrub layer is heavily dominated by **invasive species** like the Amur honeysuckle, which quickly colonizes and out-competes native vegetation for decades, if left unmanaged.



Seed Banks Make All The Difference. A native seed bank is vital for forest regeneration. Native seed banks are lost by soil disturbances from erosion, plowing, bulldozing, etc. And as forest remnants are further fragmented, more forest edge is created, allowing more light to enter the forests, favoring **invasive species** growth. Invasive species produce vast quantities of viable seeds easily dispersed by birds, wind, and water. **When they colonize a site, most or all native plant species are eliminated.**



If Only Ants Moved Farther. Heavy seeds of higher quality trees disperse only short distances, taking decades or centuries for those seeds to migrate and establish in our low quality forests. Interestingly, many of the beautiful spring wildflowers found mostly in our higher quality

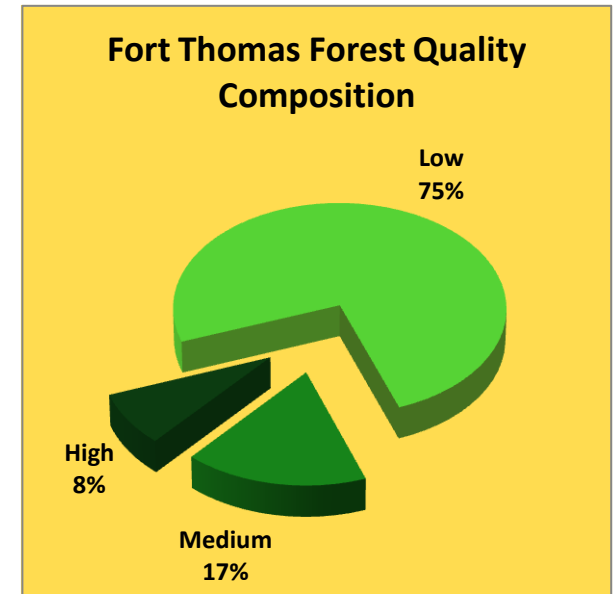
forests also disperse seeds very short distances, maybe just a foot or two each year, by ants. These include trillium, bloodroot, bellwort, trout lily, wild ginger, Dutchman's breeches among others. Their ant-assisted natural dispersal may extend only 50 to 150 feet in a human lifetime.

It's All In The Soil. Our rare medium and large crown forests are much older and are less disturbed by human activity. Although they may have been logged at least once and cattle may have grazed in them, these areas share a common feature: the topsoil does not appear to have been plowed for crops or severely eroded by other means. Therefore, soils of our better quality forests typically contain healthy and diverse seed banks of native tree, shrub, and herbaceous species (including many wildflowers).

Undisturbed topsoil has other benefits for us. It increases the water holding capacity of soil. Forests with distinct canopy, sub-canopy, shrub and herbaceous layers and with undisturbed topsoil can better intercept and hold water during storms. The soils harbor beneficial fungi and other soil organisms vital to forest health and functioning. These functions are among many that ecologists use to rate forests as having medium to high ecological quality. Because the medium crown forests have the building blocks of biodiversity, they will likely develop into forests of high ecological quality within 50 to 100 years, if allowed.

We Can Make a Difference. Because it takes so long for forests to attain high ecological quality and function, it is important for all of us to promote sustaining our community forests. Only then can we make informed decisions in the planning, development, conservation and long-

term management of this valuable natural resource for future generations.



Our first priority should be protecting our highest quality forests, because once we lose an old forest we won't get it back for generations. There is not much maintenance required for a high quality forest; you preserve it by protecting it.

It Is Not Difficult. Individual landowners have an opportunity through the Fort Thomas Forest Conservancy to set aside portions of their forested land by a simple deed of easement. As a land trust, the FTFC has the knowledge and tools to make that possible. Landowners still own their property and leave a valuable legacy to generations to come. As the song says, "You don't know what you got 'til it's gone."

Learn more by contacting the FTFC via its website, www.ftfc.org, or sending an email to ftfc@ftfc.org. We want to help you meet your conservation objectives by preserving our natural heritage.