



Northern Kentucky Urban & Community Forestry Council (NKUCFC) 2008 Issue Paper: Forests & Water Quality and Quantity

Northern Kentucky has many degraded streams and rivers, and is challenged by increasing storm water runoff issues. The current and future forest cover in the region is a valuable natural resource for improving water quality and controlling water quantity.

DISCUSSION ITEMS:

1. There is currently a lack of forest cover in large and critical areas of Boone, Kenton, and Campbell counties. Therefore, the benefits of forests in mitigating water quality and quantity problems are severely reduced in those areas. How should reforestation projects be promoted and prioritized?
2. There is currently a lack of forest cover in the riparian zones of streams and rivers, especially along the headwater tributaries. The direct and almost immediate benefits of stream buffering by forests are absent. What can be done to maximize forest cover along streams? Who should guide this?
3. The forest canopy cover in the region lacks a significant amount of medium and large canopy trees; trees in these size classes and their associated ecosystems have the greatest positive impact on improving water quality and moderating water quantity. How can protect existing tracts of large trees and ensure young forest areas mature into large canopied trees.
4. There is currently a lack of awareness and education about forest management techniques (including planting and maintenance) that can favor and improve the growth of trees into medium and large diameter forests. How can we best get technical information and assistance to property owners?

Additional Information:

The forests of the future may need to be managed as much for a sustainable supply of clean water as any other goal, researchers say in a new federal report. A new view of forests is evolving, scientists say, as both urban and agricultural demands for water continue to increase, and the role of clean water from forests becomes better understood as an “ecosystem service” of great value. Preserving and managing forests may help sustain water supplies and water quality from the nation’s headwaters.

The study also cited the value of watershed councils and citizen groups in getting more people involved in water, stream and land management issues at a local level, increasing the opportunities for all views to be considered, and conflicts avoided. The study also revealed this information:

- Demand for water continues to rise due to population growth, while forest acreage is declining and remaining forest lands are threatened by climate change, disease epidemics, fire and global climate change.
- Forest vegetation and soils, if healthy and intact, can benefit human water supplies by controlling water yield, peak flows, low flows, sediment levels, water chemistry and quality.
- Impervious surfaces such as roads and road drainage systems increase overland flow, deliver water directly to stream channels, and can increase surface erosion.
- One of the biggest threats to forests, and the water that derives from them, is the permanent conversion of forested land to residential, industrial and commercial uses.