



Illinois Forestry Development Council

Critical Issues Facing Illinois Forests and Forestry

Critical Issue: The Need to Address Continued Fragmentation of Illinois Forests and Loss of Forests through Permanent Land-Use Conversion

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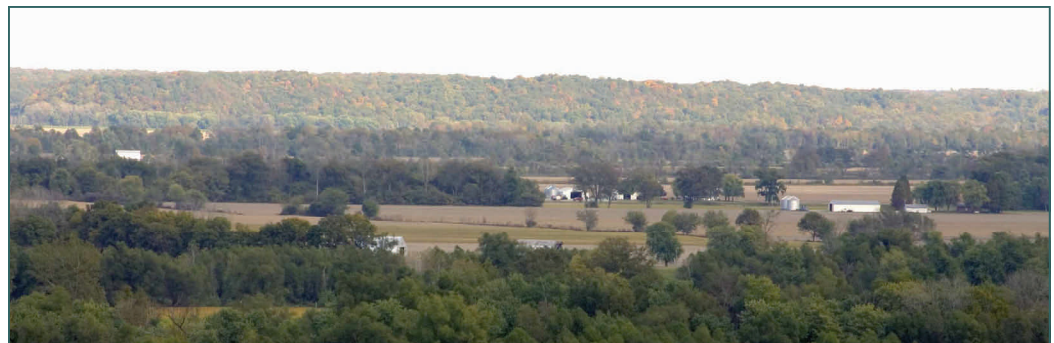
What is Forest Fragmentation? Fragmentation occurs when society's demands on the land break up large, intact blocks of forest into smaller, often isolated tracts or fragments. Our roads, our homes, our farm fields all drive the process. Land-use conversion in this context refers to forest-land being permanently put into other uses. The effect creates 'islands' of forest habitat in a 'sea' of human development.

Why is it Important to Address Fragmentation? The process of fragmentation is accelerated when more and more people seek to purchase tracts of forested land. Land ownership patterns influence the value of undeveloped land and stimulate sales. Land ownership patterns are changing dramatically in Illinois and throughout the Midwest. Greater numbers of people owning ever smaller tracts of land leads to a condition called parcelization. Research shows that owners of smaller parcels are typically less aware of traditional forestry extension programs and less likely to manage their woodlands. While these small woodlots can certainly be attractive to live on, they are often too small to manage effectively and can be too small and too isolated to function as a healthy forest ecosystem.

Many new private forest landowners are white-collar professionals or retired individuals seeking to escape urban life. Their priorities differ from owners of a working family forest and tend to favor wildlife viewing opportunities and nature appreciation. Many migratory songbirds and large mammals, however, are unable to find sufficient food supply, mates, or necessary shelter in smaller forest fragments. If fragmentation, parcelization, and permanent forest loss continue unchecked, the quantity and quality of habitat for wildlife species dependent on large forest blocks will be seriously affected in Illinois and elsewhere.

Changing land-use patterns have reduced Illinois forests to smaller, often isolated patches

-Photo credit:
W. Mangun



“Be fair, and just lower the taxes for all undeveloped land everywhere. . . And watch it stay undeveloped.”

-Illinois citizen comment

“Forest landowners are being forced to fragment their land in order to offset the huge increases in assessed value.”

-Illinois citizen comment



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How Fragmented are Illinois Forests? The forests of Illinois are highly fragmented and exhibit increasing parcelization. The USDA Cooperative Extension Service reports over 169,000 Illinois private forest landowners, a number only expected to increase. The average forested land holding covers 21.5 acres; 68.6% of landowners own less than 15 acres.

Spatially precise calculations of fragmentation across a landscape are now possible with computerized Geographic Information System (GIS) map analysis. A recent USDA Forest Service GIS assessment finds that all Illinois forest cover is affected to some degree by patchiness or nearness to a forest edge, signs of a fragmented landscape.

What are Some Possible Solutions? Fragmentation is as much of a social and economic issue as it is an ecological one. The State of Illinois, as well as county and local governments, must implement integrated approaches to address the fragmentation issue that include:

- Reform of property tax and zoning policies;
- Regional land-use planning;
- Conservation of greenways, riparian areas and other wildlife travel corridors between existing forest fragments;
- Development of innovative, voluntary programs to engage and assist private landowners in cooperative forest management.

Although conservation easement programs to prevent development of key parcels are critical, we must not forget to provide property tax relief and incentives to a wide range of forest landowners. In order to keep more forest in ‘forest’, more education and outreach is needed on the importance of both viable forest ecosystems and a viable forest products industry to Illinois.

Collaborative decision making is in order and all stakeholders, including elected officials, tree farmers, and representatives of the conservation and development communities must be invited to the table.

Additional Reading

Guyon, L.J. & Edgington, J. (2004). *Illinois Report on Sustainable Forest Management: Criteria and Indicators, Summary Report Prepared for the Illinois Forestry Development Council*. Urbana, IL: The Council and the University of Illinois.

Tyrell, M. & Dunning, G. (Eds.) (2000). *Forestland Conversion, Fragmentation, and Parcelization: A Summary of a Forum Exploring the Loss of Forestland and the Future of Working Family Forests*. A Yale Forest Forum Series Publication, Vol. 3, No. 6. New Haven, CT: Yale University.