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THE PEOPLES FORUM

Trees under multiple threats

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AS I SEE IT

As we continue to monitor our urban forests for ALB, we should remember that tree losses occur every day as we grow and change our regional land cover.

The May 9 story in the Telegram & Gazette about the continuing, successful battle against the Asian Longhorned Beetle infestation in Worcester is a reminder that the season of beetle inspections and sightings is upon us. The concern about ALB is not only local, but also regional, and national.

As many readers know, more than 30,000 trees have been removed since the ALB was found in the Worcester area (including Boylston, West Boylston, Holden, Shrewsbury, and part of Auburn). ALB is not the only threat to trees, however.

Our research on various aspects of the infestation and the responses to it, funded through the National Science Foundation, casts new light on the ALB situation as it relates to urban forests generally, providing a warning that ALB is among the least of our worries. Between 2008 and 2010 — when most of the tree cutting occurred — the tree loss due to urban development was actually double the ALB-related tree loss in the quarantine zone.

The ALB infestation has, ironically, helped us to see the tremendous impacts that loss of trees has on a community and region. In the hardest hit neighborhoods of north Worcester, a drive down the impacted streets painfully illustrates the dramatic change in neighborhood character that the widespread loss of large, mature, shading trees causes in an urban neighborhood.

We know from research at the U.S. Forest Service by David Nowak and colleagues that trees offer important urban ecosystem services, from absorption of air pollutants to reduction in storm water runoff to energy savings due to shading

of roads, sidewalks and homes.

So we should be concerned about this loss, but we should also worry about the everyday, routine phenomenon of tree loss due to urban development. Such loss is pervasive, with no sign of abatement even in a tough economy. Economic growth and vitality in Worcester and other areas is important, but should not come at the cost of significant tree loss.

Worcester residents were devastated by the loss of trees due to the ALB infestation, but the ALB-related loss was a single event. The quantitatively more significant loss due to urban development, or sprawl, is ongoing and repeated across our region and the nation every year. This loss is more than the scale of ALB losses, but hidden because it doesn't affect a concentrated urban area as did the ALB losses. But the impacts are significant nonetheless — loss of trees increases impervious surfaces, decreases available wildlife habitat, and lowers aesthetic neighborhood qualities.

No one could say that the ALB-related tree losses in Worcester and the region have been minor or insignificant. But it is surprising, even disconcerting, to realize that we lose many more trees in any given two-year period to routine development.

ALB offers a warning for us to be alert to tree loss due to all causes. As we continue to monitor our urban forests for ALB,

we should remember that tree losses occur every day as we grow and change our regional land cover. Urban growth need not be as extensive and damaging to tree cover as it typically has been.

Sustainable urban development asks that we consider and even mitigate the environmental impacts of sprawl. Sprawl sometimes seems like an intractable problem. Its impact on trees means higher energy costs, higher mental health costs, greater incidence of air, water and soil pollution, more flooding and soil erosion. We need to ask hard questions of development and not be blind to its impacts because trees are felled all across the region rather than in one concentrated area as with ALB.

Our research findings highlight that we need to see and study the urban forest in a comprehensive manner, with action and concern at all levels — from the individual to the neighborhood to our local, regional, and national policymakers — to mitigate tree losses. If we truly are concerned about our urban trees — and research about their benefits suggests that we should be — then we should ask questions and be vigilant about all threats to our urban trees.

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