LEAP POSITION STATEMENT ON WHITE-TAILED DEER MANAGEMENT
Updated August 2016

POSITION: As a regional alliance dedicated to conserving nature for future generations, Lake Erie Allegheny Partnership for Biodiversity (LEAP) members believe that natural communities in our region need to be actively managed and conserved based on scientific principles and best management practices. LEAP members recognize that white-tailed deer (*Odocoileus virginianus*) are an important component of the biodiversity within the region and have significant economic, ecological, and social value. However, when factors favor high deer populations—such as high birth output, low disease incidence, abundant food supply, and few predators—overabundant deer cause damage to ecosystems and negatively impact human safety. Conversely, in areas of the LEAP region where active, sustained deer management occurs, native vegetation flourishes, habitat quality is high, and conflicts between deer and human populations are reduced. As a result, white-tailed deer populations should be managed to 1) maintain a sustainable deer population, 2) retain the number of deer that a landscape can support while still remaining healthy over the long-term (ecological carrying capacity), and 3) minimize negative deer–human interactions (social carrying capacity).

BACKGROUND: The geographic focus area of the Lake Erie Allegheny Partnership for Biodiversity (LEAP) encompasses the Lake Plain and glaciated lands and waters south of Canada from Sandusky Bay to the Allegheny Mountains. This includes portions of northern Ohio, western Pennsylvania, and western New York.

The white-tailed deer populations within the LEAP region share a similar history to other deer populations across North America. White-tailed deer were nearly extirpated from the region in the late 19th and early 20th centuries, at which time conservation measures were enacted to establish sustainable populations. White-tailed deer populations have recovered from historic lows, and today—with few remaining predators, high reproductive rates and survivorship, local ordinances which prohibit hunting, adaptive food habits, supplemental feeding, and low disease-related mortality—the frequency of deer-human interactions has increased in many areas. Examples of deer-human interactions include deer-vehicle accidents, damage to landscaping and garden vegetation, and damage to agricultural crops. Importantly, local deer overabundance critically affects the health of natural areas in our region.

The impacts associated with an overabundance of or excessive browsing by deer have been well-documented (Rooney, 2010):

- Impacts on Biodiversity: An abundant deer population that is out of balance with its native ecosystem has detrimental impacts by both directly and indirectly affecting native plant and wildlife populations, habitat quality, and ecosystem processes (Rooney 2003; Côté *et al*. 2004).

- Impacts on Plants: When deer become overabundant they reduce the ability of rare and once common plants to survive and reproduce. Deer browsing reduces the height, vigor, and reproduction of plants through the repeated removal of stems, leaves, and flowering parts of plants (Rooney, 2001; Russell *et al.* 2001; Knight *et al.* 2009; Waller *et al.* 2009).

- Impacts on Wildlife: Deer browsing negatively impacts wildlife that needs woodland understory for forage, nesting, and cover. Deer browsing can, for instance, significantly reduce vegetation that birds use for foraging, escaping predators, and nesting (McShea and Rappole 2000; Fuller 2001; Allombert *et al.* 2005; Chollet and Martin 2013).

- Impacts on the Economy: Deer browsing and antler rubbing cause economic losses in many agricultural operations including row crops, orchards, nurseries, tree farms, and commercial forests, as well as causing substantial damage to landscape and garden vegetation, cemeteries, golf courses, and natural areas (Conover and Kania 1995; Scott and Townsend 1985; Brown *et al.* 2004; USDA 2009).

- Impacts on Disease: Overabundant deer populations can hasten the spread of diseases that impact deer and humans (McShea *et al.* 1997).

- Deer-Vehicle Accidents: An estimated 1.5 million reported deer-vehicle accidents occur in the United States each year and result in approximately 29,000 injuries and 200 human deaths annually. However, only a fraction of actual deer-vehicle accidents are reported (Messmer and Messmer 2008).

  (https://www.ohioinsurance.org/ohio-statewide-deer-vehicle-collisions-continue-decline-but-damages-are-up-6) (Accessed August 2016)

RECOMMENDATIONS: LEAP members support the following points in regard to the management of conflicts and damage resulting from white-tailed deer:

- We recognize that white-tailed deer are an important and essential component of biodiversity within the region.

- We recognize that reducing wildlife damage is an important part of present-day wildlife management.

- We recognize that acceptable deer population levels depend on the specific situations and management objectives for a given area, and that factors such as deer herd health, ecological impacts from deer, additional threats to forest health, public safety, and social tolerance of deer. All of these factors can often contribute to determining this acceptable level.

- We recognize that when browsing by deer causes habitat deterioration, appropriate deer densities are best managed by site-specific reduction of deer numbers. Areas with low to moderate impacts to plant and animal populations may require a lower degree of herd management than areas with heavy

browsing and the appearance of a browse line.

- We believe that it is important to disseminate information to municipalities, residents, and other interested parties regarding deer management, including information on lethal and non-lethal control options.

- We believe that it is critical to develop and implement education efforts that foster an understanding of the biological, social, and economic consequences of managing deer populations including the option of no active management.

- We should encourage wildlife biologists and land managers within the region to continue to assess their deer populations and to continue to evaluate effective techniques for deer management.

- We support active control of deer populations (e.g., lethal methods including hunting) on public and private lands in accordance with state and local regulations.

- We support safe management techniques that are deemed most appropriate based on individual situations and best science currently available.

- We will encourage municipalities to work with the Ohio Division of Wildlife to develop safe and effective urban deer management plans to manage the white-tailed deer populations within their city boundaries.

- We believe that deer densities in forests and woodlands should be reduced to a level that, in combination with other appropriate forest management techniques, would allow for the reproduction of canopy tree species, and for the shrub and herbaceous understory layers to return to a healthy condition.

SUMMARY: White-tailed deer management is a critical component of a comprehensive, science-based land management strategy designed to restore a high degree of biodiversity and protect the long-term health and resilience of natural communities in the LEAP region. White-tailed deer have the potential to impact native plant and animal communities. Overabundant deer populations also result in increased numbers of deer- vehicle accidents, as well as an increased potential for disease and parasite transmission. In the absence of management, deer populations can increase beyond the capacity of habitats to support them in the long term, and the quality of habitats deteriorate significantly before any natural mechanisms take effect in limiting herd growth, thereby causing deer health and productivity to eventually suffer. Deer management programs should support an ecosystem balance that sustains a full range of native plants and provides diverse habitat for birds and other animals while also dealing with any identified deer-human interaction issues. At times it is necessary to use human intervention to manage deer population numbers at acceptable levels for desired healthy ecosystems, to reduce nuisance situations, and to increase human safety.

LEAP MEMBERS CONFIRMING THEIR SUPPORT FOR THE STATEMENT:

Audubon Society of Greater Cleveland
City of Avon Lake
City of Mentor
Cleveland Botanical Garden
Cleveland Metroparks
The Cleveland Museum of Natural History
Cuyahoga County Board of Health
Cuyahoga Soil and Water Conservation District
Geauga Park District
Hiram College
Holden Arboretum
Medina County Park District
Metro Parks, Serving Summit County
Native Plant Society of Northeastern Ohio
Nature Center at Shaker Lakes
Ohio Division of Wildlife
The Nature Conservancy
The Wilderness Center
USDA/APHIS-Wildlife Services
Western Reserve Land Conservancy

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