2019 Virginia Private Lands Deer Population Objectives with NEW Target Levels

Background. Since the first Deer Management Plan (1999), DGIF has managed deer populations to increase, stabilize, or decrease according to objectives established for all management units (counties and some cities). The 2015-2024 Deer Management Plan details the methodology used to establish deer population objectives, with improvements made based on a 2013 VA Tech cultural carrying capacity (CCC) study (see pp. 72-73, Objective 3 in this link). Although these deer population objectives have generally served Virginia deer managers well, one challenge has been determining an appropriate deer population level (a target), in addition to the direction that the deer population should change. For instance, some very high-density deer herds have declined significantly (e.g., Northern Virginia), but have they declined enough to meet CCC? Some low deer populations have increased (e.g., Coalfield), but should they continue to build to meet expectations of our constituents? In the past, DGIF has revisited population objectives during each plan revision and made directional adjustments at that time; however, some counties' deer herds have changed significantly enough between revisions that the agency has had to manage "off plan." An alternate approach is to set target levels for where we would like deer populations to be at the expiration of the current plan (2024).

Need. DGIF staff have identified a need to update some deer population objectives for private lands in time for the upcoming 2018-2019 hunting regulation review cycle for two main reasons:
(1) Deer herds on private lands in some counties have declined significantly since the revised plan went into effect in 2015, due in part to aggressive seasons (planned) and, in some places, outbreaks of Hemorrhagic Disease (unplanned).
(2) DGIF deer program staff have developed a new method for categorizing deer population objectives for private lands (including target levels, not just direction) that management staff and administrators have found very useful. Although mostly an operational change - rather than a change in objectives, in most cases – this is significant enough to warrant an explanation.

New approach – target levels. The map below portrays the current status and suggested deer population objectives/target levels for private lands through 2024 (all public land objectives remain "increase"). The color-coded base map shows the relative abundance of deer herds in each county, based on the 2015-2017 average. Each color represents a range of deer density index values that were chosen based on the VA Tech CCC study and DGIF experience working with these herds for decades (red: > 3.6 antlered deer harvested per square mile of habitat; orange: 2.8-3.6; yellow: 2.0-2.8; green: 1.0-2.0; and, white: < 1.0). For counties with no arrow, our suggested management direction is to maintain a stable deer population, at that target level, through 2024. For counties with "up" arrows, our suggested management direction is to increase the population, and our suggested target level is the color inside the arrow. For example, Buchanan County will increase from a lower deer population (colored green) to a more moderate deer population (colored yellow). For counties with "down" arrows, our suggested management direction is to decrease the population, and our suggested target level is the color inside the arrow. For example, Bedford County will decrease from a higher deer population (colored red) to a more moderate deer population (colored yellow). By far the most common target level (in 72 counties) will be a moderate density deer herd (yellow); however, in the "urban crescent" from Northern Virginia, through Richmond, to Hampton Roads, 11 management units would be reduced to, or maintained at, lower deer densities due to intense human-deer conflicts (e.g., collisions, plant damage). The 14 counties where we suggest higher-than-average target levels

(orange) experience relatively few human-deer conflicts and/or exhibit a natural tendency for an abundance of deer that is tolerated by the human community.
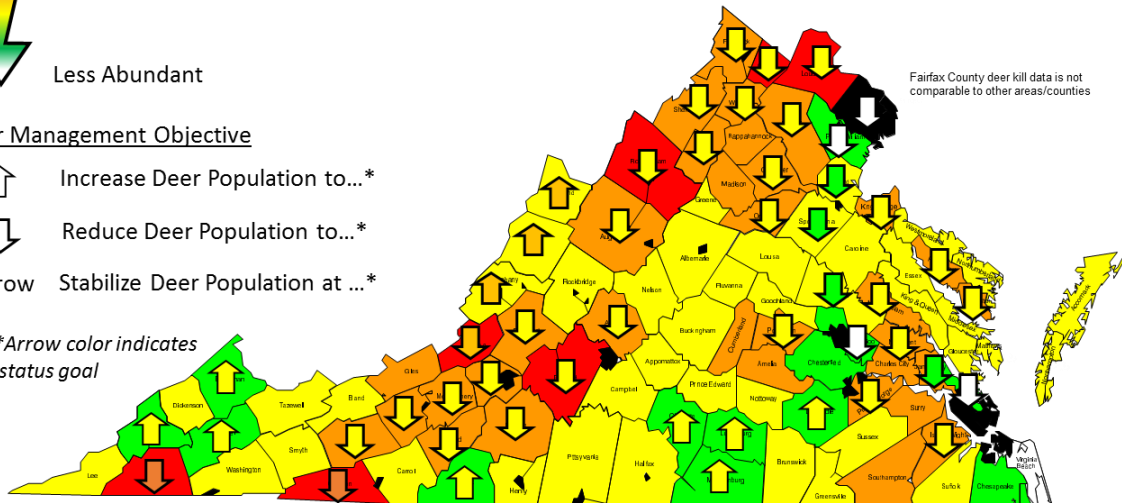
Current Deer Population Status: Relative Abundance

More Abundant

Less Abundant

Deer Management Objective

⇧ Increase Deer Population to…*

⇩ Reduce Deer Population to…*

No arrow Stabilize Deer Population at …*

*Arrow color indicates status goal

Fairfax County deer kill data is not comparable to other areas/counties

2017 private land relative deer population abundance and target objective by management unit.
Index is based on which category the 3-year average of antlered bucks killed per square mile of estimated private land deer habitat population index was in two of the last 3 years.

Revision of 2015 Plan objectives. Deer program and regional staff who established target levels for all counties considered whether the directional objectives (increase, stabilize, or decrease) presented in the 2015 Deer Plan were still appropriate. In all, we suggest revised directions for 25 counties (see table on next page and map above).

Review and Approval. VDGIF deer program leaders, regional biological staff, Wildlife Resources Division administration, and the DGIF Director have reviewed and approved these changes. The Stakeholder Advisory Committee (SAC) members who assisted with development of the 2015-2024 Deer Management Plan also had the opportunity to review these changes. The Deer Plan allows for interim changes in objectives or strategies, provided the SAC has an opportunity to review these revisions. These updated objectives are effective during January 2019 and appear as an addendum to the Deer Plan on the DGIF website.

County	2015 Plan Objective	Revised Objective
Charles City	Reduce	Stabilize
Chesterfield	Reduce	Stabilize
Dinwiddie	Stabilize	Increase
Hanover	Stabilize	Reduce
King William	Stabilize	Reduce
Northumberland	Reduce	Stabilize
Surry	Reduce	Stabilize
Westmoreland	Reduce	Stabilize
Amelia	Reduce	Stabilize
Charlotte	Stabilize	Increase
Cumberland	Reduce	Stabilize
Lunenburg	Stabilize	Increase
Mecklenburg	Stabilize	Increase
Patrick	Stabilize	Increase
Giles	Reduce	Stabilize
Russell	Stabilize	Increase
Wythe	Stabilize	Reduce
Albemarle	Reduce	Stabilize
Augusta	Stabilize	Reduce
Goochland	Reduce	Stabilize
Highland	Stabilize	Increase
Madison	Reduce	Stabilize
Page	Stabilize	Reduce
Rappahannock	Reduce	Stabilize
Spotsylvania	Stabilize	Reduce