

Proposed Black Bear Population Objective Changes

Introduction

The following is a proposal to change bear population objectives in seven Bear Management Zones (zones) in Virginia through added hunting mortality. Pending review by the Black Bear Management Plan (BBMP) Stakeholder Advisory Committee (SAC), the 2012-2021 BBMP allows for interim adjustments (see page 3 of the BBMP) of population targets to meet cultural carrying capacity objectives (see Goal 2, Objectives 1 and 2). Additional public input will provide a valuable supplement to the SAC review. Thoughtful public input on proposed changes in BBMP population objectives will be necessary to make any subsequent changes to hunting seasons. The following provides information on the proposed changes.

Background

The VDGIF mission to “*manage wildlife populations and habitat for the benefit of present and future generations*” requires knowledge about public values for Virginia’s black bears. The combination of these public values is often considered in terms of cultural carrying capacity (CCC). CCC is the maximum number of bears in an area that is acceptable to the human population. The CCC is a function of the human tolerance to bears and the benefits people derive from bears. It is different for each constituency, location, and point in time. Ultimately, CCC involves a combination of social, economic, political, and biological perspectives. At CCC, the bear population is a balance of positive (e.g., recreation) and negative (e.g., damage) demands for bears. The CCC level for bears generally occurs well below the biological carrying capacity (BCC); BCC is the maximum number of bears that a habitat can sustain over time. Bear populations are managed to meet both population viability and CCC goals.

Goal 2 (Population and Cultural Carrying Capacity (CCC)) in the 2012-2021 Black Bear Management Plan (BBMP) dictates that we “Manage and maintain current and projected bear populations at levels adaptable to a changing CCC (e.g. land use, property concerns, economics, recreational opportunities)” with an objective to meet and maintain bear population objectives at current or potential cultural carrying capacity (CCC) in each zone. As presented in the BBMP, public values provided the foundation for determining CCC and the resulting population objectives in each zone (Figure 1). Bear population management objectives to meet the CCC were based on the balanced, albeit somewhat subjective, combination of public values expressed for bear-related recreation, human-bear interaction concerns, and their role in the ecosystem.

In most areas of Virginia the original BBMP bear population objectives have been met, especially those with the highest relative bear densities (Figure 1). However, the BBMP also calls for ongoing assessment and updated bear population CCC objectives in each zone because as bear populations, land use, human populations, and recreational values change, so does the public acceptance of bears. Therefore, the CCC objectives need to be reviewed and updated periodically to ensure that population management programs respond to changes in public demands for bears.

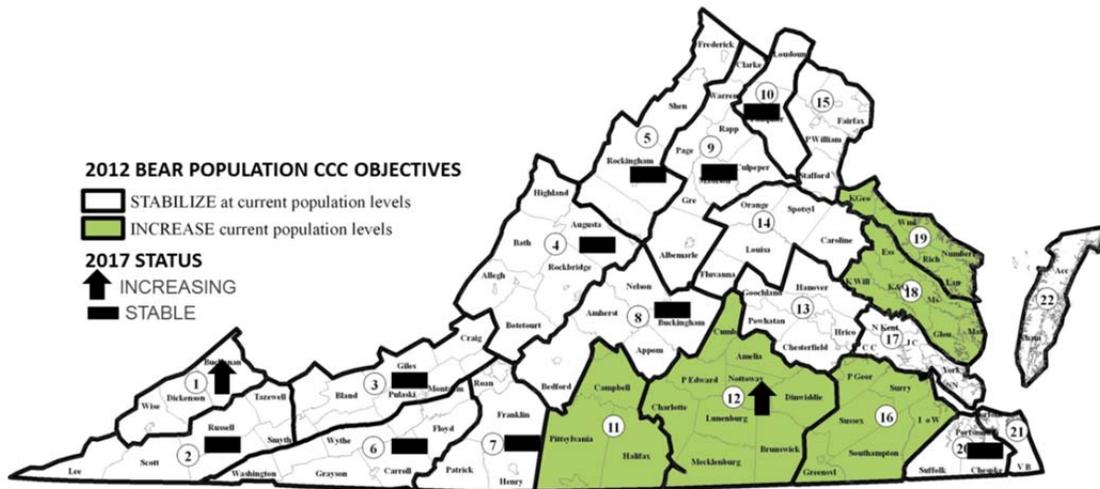


Figure 1. 2012 BBMP Bear population objectives with 2017 population status.

Recent assessment and considerations of current CCC by zone included a number of factors including trends of bear-related calls, localized and chronic issues, and concerns from agricultural producers and certain hunter groups in addition to input from VDGIF staff responsible for districts within each zone. In some but not all zones, these indicators pointed to a shift/decrease in public tolerance for bears over the last five years, possibly suggesting that bear populations have exceeded local CCC and a public desire for lower bear populations. As a result, new population objectives have been proposed with specific bear population reduction goals (Figure 2). The proposal is to change the bear population objectives in 7 of the 22 zones. Because hunting is the preferred tool for lethal management of bears, additional hunting seasons are being recommended to meet the new objectives in each of the zones.

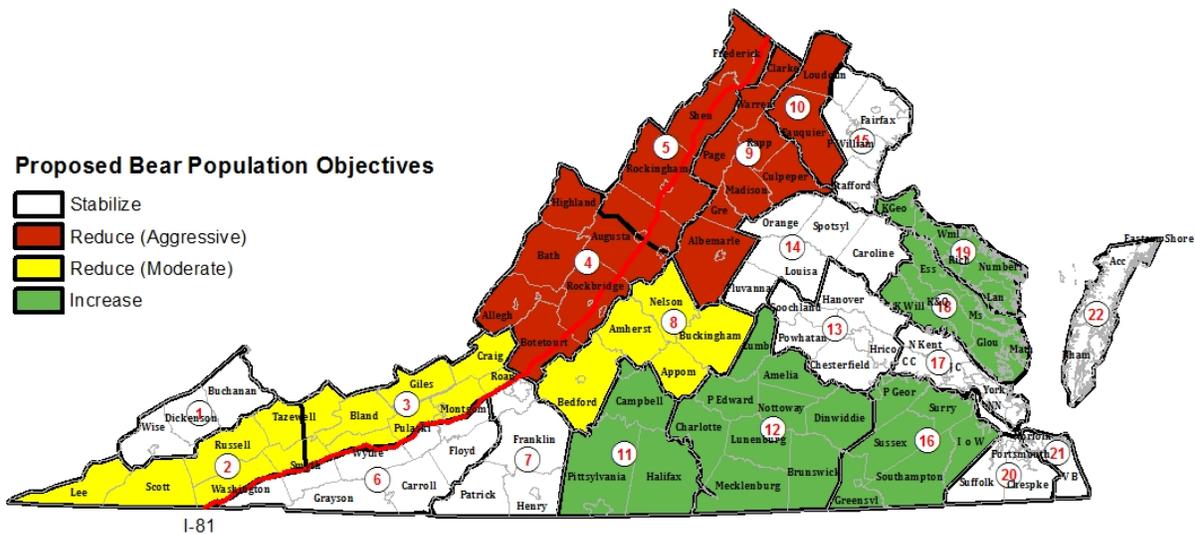


Figure 2. Proposed bear population objectives by zone

Specific Zone Information

Zones 2 and 3

These zones contain a relatively high density of bears and while the proportional number of bear-related issues reported to VDGIF is not as high as other areas of Virginia, these areas present special challenges due to the unique human demographics of the areas. Many of these areas had been identified in the BBMP as having a higher relative risk of agricultural damage by bears and have a large number of bears killed in agricultural settings. Bear complaint rates are currently among the highest in the state as bear population levels are higher than they have been since the historical population declines. Because of the decreased tolerance and damage issues occurring, a 14% reduction in the bear population over a 5-year period was determined to be the target for population reduction in zones 2 and 3. In order to accomplish this, annual mortality would have to increase by 12%.

Zones 4, 5, 9, and 10

These zones have some of the highest bear populations in Virginia (some influenced by proximity to Shenandoah National Park) that results in a large proportion of calls to VDGIF about bears. While the vulnerable agricultural crops (e.g., corn, orchards) range from lowest in the state to the highest, the numbers of agricultural complaints and bears killed have become disproportionate in these areas. Specifically, in these zones, it is not uncommon for a farmer to kill 20 - 30 bears using “kill permits” on his or her property annually, especially in poor mast years when bears in higher numbers are drawn into corn fields. While tolerance for bears was initially perceived to be relatively high in most areas within these zones, in recent years concerns about the population have been expressed by both private and public entities. There has also been a growing problem with severe cases of mange in bears in the northern portions of zones 5 and 9 and while there is not strong evidence that this disease can be stopped through decreased populations, keeping this disease contained in the northern portion of the state is imperative to the health of bears throughout VA. A 25% reduction in the bear population over a 5-year period was determined to be the target for population reduction in zones 4, 5, 9, and 10. In order to accomplish this, annual mortality would have to increase by 23%.

Zone 8

At the February 22 VDGIF Board meeting, this zone was suggested as an area that could benefit from increased recreational opportunity as well as a moderate population reduction. The proposal would result in a 13% increase in annual mortality and 14% reduction in the bear population over 5 years.

Population Objectives and Proposed Hunting Season Changes

In order to accomplish the proposed objectives to decrease populations in these zones, hunting seasons would need to be changed to increase hunting mortality rates. Currently, added hunting seasons are being proposed in all 7 zones with new objectives to decrease populations. Additional hunting will be necessary to meet new changes in population objectives (e.g., from stabilize to decrease) in zones 2, 3, 4, 5, 8, 9 and 10.

New hunting opportunities are also being proposed in 3 additional zones to meet or continue to meet existing population objectives. The goals would be to meet or continue to meet objectives in zones 1, 14, and 15. (Figure 3, Table 1).

