Tennessee

STRATEGIC ELK MANAGEMENT PLAN

2018-2027

Tennessee Wildlife Resources Agency

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FOREWORD

Restoration of elk after an absence of over 150 years in Tennessee has been a tremendous success story. The elk herd in the Cumberland Mountains has provided viewing opportunities for thousands of visitors and has been a unique hunting opportunity for those fortunate enough to draw a permit. Managing this important resource requires thoughtful planning that values public involvement, strong partnerships, and sound scientific principles. This strategic plan provides the vision for elk management in Tennessee and identifies the important goals for the next decade.

- Ed Carter, TWRA Executive Director

PURPOSE

This document summarizes the elk restoration activities, the current status of elk management, and identifies the direction of the elk program for the next 10 years with an emphasis on healthy populations, habitats, and public involvement. Broad program goals are provided as the basic framework of the plan, and specific objectives and strategies have been created to meet these goals. Finer scale programmatic components with specific measurables (e.g., acres, number of animals, etc.) will be addressed within annual operation plans.

PLAN DEVELOPMENT

Two public scoping workshops were held in spring 2017 to gather local public input regarding the elk program and potential components of the plan. See Appendix A for workshop details and the list of comments. Based on information from the workshops and input from the TWRA Elk Team and other staff, a draft Strategic Elk Management Plan was written. This draft plan was subsequently provided to partner non-governmental organizations such as the Rocky Mountain Elk Foundation, National Wild Turkey Federation, Tennessee Wildlife Federation, Tennessee Wildlife Resources Foundation, Campbell Outdoor Recreation Association, and Tennessee Farm Bureau. Their collective input was utilized in developing the final draft of the plan.

The final draft was provided for public review on January 16, 2018. Public comments on the draft were collected via an email address or mailed correspondence. Public input was collected for 30 days and a total of 18 individuals provided comments. These comments were assimilated into the final version of the Strategic Elk Plan, which was officially adopted on March 20, 2018.

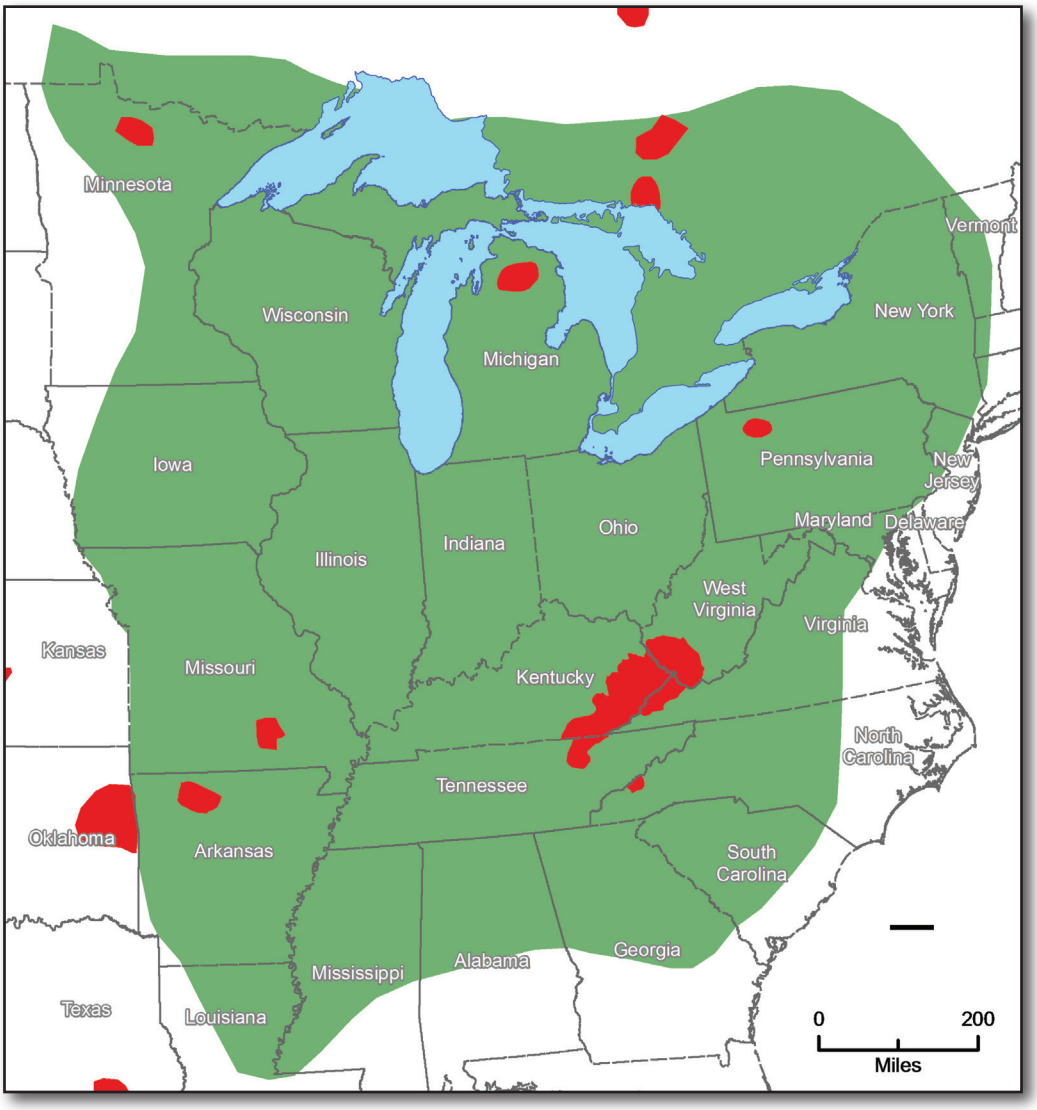
ELK RESTORATION IN TENNESSEE

The eastern subspecies of North American Elk (*Cervus canadensis canadensis*) was present throughout Tennessee before European settlement. Habitat destruction and unregulated harvest were the major contributing factors leading to the extirpation of this subspecies in Tennessee and eventual extinction in the Southeastern United States (O'Gara and Dundas 2002). Accounts from early settlers indicate elk were found in Middle Tennessee as late as 1825. "In the mountains of the east and in the swamps of the western part of the state it held out a bit longer, apparently the last one shot in East Tennessee was in 1849." (Ganier 1928). The last historical record of an elk being sighted in Tennessee was in 1865 when one was reported to be killed in Obion County (Murie 1951).

Following successful elk reintroductions in other states (Figure 1), the Tennessee Wildlife Resources Agency conducted an evaluation in 1996 to determine if elk restoration would work in Tennessee (Wathen et al., 1997). Potential restoration sites were evaluated based on 5 criteria: 1) the area should be at least 200,000 acres, 2) contain significant public land holdings, 3) have significant open land acreage,

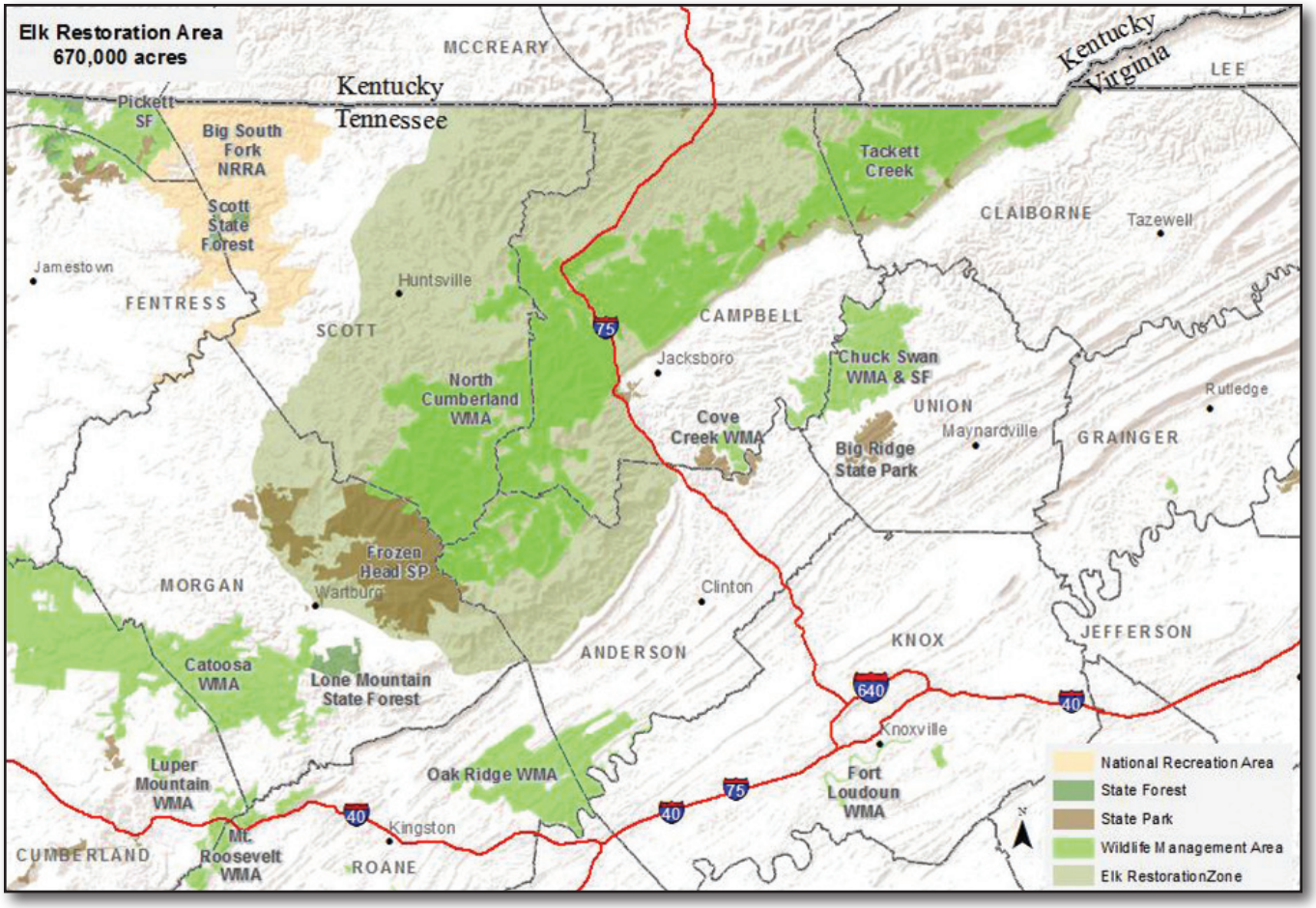
or the potential to develop open land areas, 4) potential to offer public hunting opportunities, and 5) be an area where crop depredation is minimal. In 1997, TWRA proposed an elk restoration project in the area around Land Between the Lakes (LBL) in West Tennessee. The proposal failed due to opposition from the agricultural interests (Steve Bennett, TWRA, personal communication, 2014). However, public support for an elk reintroduction strengthened over time; especially in the Cumberland Mountains of East Tennessee.

Figure 1: Current (red) and historic (green) elk populations in the eastern United States



In 2000, TWRA drafted a proposal entitled "Elk Restoration in the North Cumberland Plateau, Tennessee" (Tennessee Wildlife Resources Agency 2000). A 670,000 acre Elk Restoration Zone (ERZ; Figure 2) was established in portions of Scott, Campbell, Morgan, Claiborne, and Anderson counties, an area southwest of Kentucky's elk zone. The ERZ was centered around the North Cumberland Wildlife Management Area (NCWMA), formerly known as the Royal Blue Wildlife Management Area. The NCWMA contains 196,000 acres for public use as either TWRA owned land (153,000 ac.) or land leased for recreational use (43,000 ac.) The ERZ was selected due to its adjacency to Kentucky's elk restoration zone, low human population, potential elk hunting and viewing opportunities, and comparatively low acreages of agricultural crops. (Wathen et al., 1997).

Figure 2: Tennessee Elk Restoration Zone



Based on elk populations in other eastern states, TWRA biologists believed the ERZ could sustain a herd of up to1,400-2,000 elk. As a result, the restoration proposal called for 400 elk to be released on the NCWMA, beginning in 2000 (Tennessee Wildlife Resources Agency 2000). Elk Island National Park (EINP) in Alberta, Canada, was chosen as the source of Tennessee's elk due to its long-term disease testing protocols and their significant distance from wild cervids infected with chronic wasting disease. The Canadian Food Inspection Agency, EINP, and TWRA coordinated with the United States Department of Agriculture (USDA) to conduct disease testing and vaccinations of the elk before they were imported into the U.S. and ultimately released on NCWMA. All elk were tested for brucellosis, bovine tuberculosis, bluetongue, Epizootic Hemorrhagic Disease, infectious bovine rhinotracheitis, bovine virus diarrhea, and leptospirosis.

On December 19, 2000, several hundred people witnessed the reintroduction of 50 elk into Tennessee at Horsebone Ridge on NCWMA (Lupardus 2005). In 2001 and 2002, an additional 36 and 50 elk, respectively, were released at the same site (Table 1).

From 2002-2005 no elk were available from EINP. However, in 2003 LBL had 31 surplus elk available for TWRA that originated from EINP (Lupardus 2005). TWRA imported and released these elk, but was unable to obtain additional elk from LBL until 2008; when it obtained and released 34 more (Table 1). The 2008 importation was contested by a Tennessee captive elk farmer filing a lawsuit, but the eventual ruling favored TWRA, authorizing importation and release. No additional elk releases have occurred since the 2008 release, and new elk importations will not be recommended during the span of this strategic plan due to concerns of disease introductions. A total of 201 elk were released on North Cumberland WMA from 2000-2008 (Table 1).

Table 1: Release dates, composition, and source of elk released in Tennessee's Elk Restoration Zone

Release Date	# of Elk	Adult Males	Adult Females	Calves	Source
12/19/2000	50	10	27	13	Elk Island National Park Alberta, Canada
2/28/2001	36	10	4	22	Elk Island National Park Alberta, Canada
2/14/2002	50	6	19	25	Elk Island National Park Alberta, Canada
2/23/2003	31	8	16	7	Land Between the Lakes, Kentucky
3/6/2008	34	17	9	8	Land Between the Lakes, Kentucky
Total	**201**	**51**	**75**	**75**	

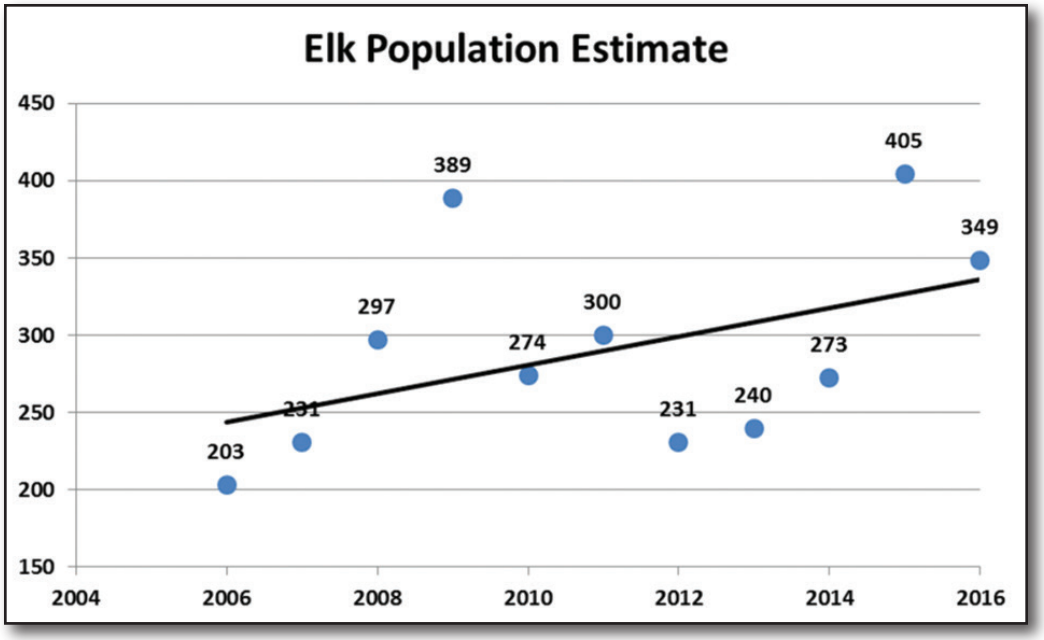
Additional reintroductions of elk occurred by the National Park Service in the Cataloochee Valley in North Carolina in 2001 and 2002 when 25 and 27 elk were released into the Great Smoky Mountains National Park, respectively. The current estimated elk population in the Park is 150+ animals. Some animals have been reported outside the national park boundaries in Cocke County, Tennessee. However, this population of elk occurs well outside the established ERZ in the Cumberland Mountains and for all intents and purposes, are outside the scope of this plan. Tennessee Code Annotated 70-4-116 (f) (2) (b) presented in Appendix B addresses elk occurring outside the ERZ.

CURRENT STATUS

Population

Determining population trends using traditional population size estimators such as aerial winter counts is difficult with the Tennessee elk herd due to the rugged terrain, extensive forest cover, and clumped distribution of animals. Beginning in 2006, Anderson (2009) used mark-resight techniques using radio-collared elk to estimate population size. The annual survey estimates of elk in Tennessee appear to show a population with a positive growth rate (Figure 3). However, confidence intervals around the estimates are large. The 2016 population survey resulted in an estimate of 349 elk, yet the upper and lower confidence limits were 195.9 and 636.1 animals, respectively.

Figure 3. Tennessee elk population estimates (2006-2016) from TWRA reports.



University of Tennessee researchers monitored survival and movements of 156 radio-collared elk released from 2000-2004 on NCWMA (Kindall et al. 2011). The mean annual survival was 0.80 (Total SE = 0.02) with poaching, accidents (e.g. vehicle collisions or environmental issues), and disease from meningeal worm (*Parelaphostrongylus tenuis*) as the primary sources of identified mortality. Population viability modeling indicated that the herd was at risk for decline based on the observed survival and optimistic estimates of reproduction and recruitment. The population growth appeared to be limited by mortality factors. It was hypothesized that the mortality rate could decrease with reductions in poaching, habitat improvements, and possible development of resistance to meningeal worm infection.

A positive step towards reducing poaching as a population limiting factor occurred in 2015 when Tennessee State Code Annotated 70-4-116 (Appendix B) was amended to require a person convicted of illegally killing or possessing an elk to pay a penalty of $1,500 for each elk without antlers and antlered wild elk with less than eight antler points. A sliding scale was also established for elk with larger antlers. Those elk having eight to 10 points would cost a violator $1,500 per animal, plus $500 per antler point. Furthermore, any elk with 11 or more antler points would cost $1,500 plus $750 for each antlered point.

Habitat

The NCWMA is comprised of approximately 86% deciduous forest, 12% openings (primarily fields and reclaimed coal strip mines), and 1% cropland (TWRA 2000). The NCWMA is a mixed-mesophytic forest with the major forest communities described by Cabrera (1969) as sugar maple (*Acer saccharum*), yellow-poplar (*Liriodendron tulipifera*), basswood (*Tilia americana*), and buckeye (*Aesculus flava*) in north-facing coves. The north and west facing ridges and coves contain sugar maple, northern red oak (*Quercus rubra*), yellow-poplar, and black locust (*Robinia psuedoacacia*). Chestnut oak (*Quercus montana*), and black locust occur on west and southwest facing ridges and coves.

Elevation of the area ranges from 1,300-2,600 feet and slopes average 40-60%, but range from 10-100% (Smalley 1984). Strip, bench, and deep mining have been the predominant means of coal extraction, and have created many shelves or benches across the area. Most openings created by mining activities contain tall fescue (*Festuca arundinacea*) and serecia lespedeza (*Lespedeza cuneata*). Soils on the area have severe limitations and are typically classified as unsuited to cultivation and restricted mainly to grazing, forestland, or wildlife use (Soil Survey Staff). Soil pH ranged from 4.8-5.2 in newly established fields in 2012 that were previously forested.

Elk research projects in the northern Cumberland region of Kentucky (Schneider et al. 2006) and Tennessee (Lupardus et al. 2011) described seasonal diets of reintroduced elk. The studies reported use of grasses, forbs, and woody plants varied by season. In general, research indicates that mature forest interspersed with a few wildlife openings is not ideal to meet annual forage requirements for elk. It is instead necessary to employ a variety of habitat management techniques. Summer and early fall nutrition may be especially important to herd productivity (Cook et al. 2004) and habitat management techniques that address those periods should be implemented when herd growth is a management goal.

Much of the habitat work before, and immediately after the reintroduction of elk on NCWMA involved creating wildlife openings and planting beneficial foods. Some reclaimed strip benches and recent timber harvest areas were converted into permanent wildlife openings. Approximately 750 acres of wildlife openings have been established on NCWMA. However due to the rugged topography and narrow ridgetops many of the openings are small (<3 acres). A successful "lands unsuitable for mining" petition by the State of Tennessee to the U.S. Department of the Interior Office of Surface Mining Reclamation and Enforcement prevents future mining within 600 feet on either side of certain ridge lines on NCWMA although remining may be allowed on some sites (https://www.osmre.gov/programs/RCM/TNLUM.shtm). Consequently, the creation of new open areas via mining activities is unlikely.

Some elk are seasonally utilizing lower elevation private land areas with large openings. It is currently unknown if elk currently utilizing quality habitat on private lands would leave those sites in response to additional habitat creation on NCWMA. Most openings on NCWMA are planted in a variety of cool season plantings such as wheat, clovers, turnips, and alfalfa. Openings are generally maintained on a 2-3 year cycle of mowing, burning, herbicide treating, or replanting. Smaller or more isolated wildlife openings may be revisited on a longer 3-5 year rotation. Some openings are planted with annual warm season crops such as soybeans, cowpeas, sunflowers, and corn.

Prescribed fire is a management technique commonly used on the NCWMA to improve areas for elk foraging. Annually, approximately 2,000 acres are targeted for prescribed burning. Most prescribed fire is implemented in conjunction with some form of canopy reduction or to reset young forest sites. External grant funding has been critical to accomplishing acreage goals. Partnerships with organizations such as the Campbell Outdoor Recreation Association, National Wild Turkey Federation, Rocky Mountain Elk Foundation, and the Tennessee Wildlife Federation have provided managers the opportunity to increase acres managed by hiring outside contractors.

Forest management is the most cost effective technique for creating elk foraging areas for the spring, summer, and fall seasons. Nanney (2016) identified the importance of forest management for creating summer forage for elk on NCWMA. Closed canopy forests produce the least amount of summer forage than all other cover types. Lupardus et al. (2011) recommended oak savannas as an ideal

habitat type based on elk diets on the NCWMA and may be similar to the vegetative structure and community historically used by elk in Tennessee.

Managing habitat for wildlife on public lands is not a single species approach. The TWRA is charged to consider how management decisions would impact all species. In particular, TWRA must evaluate how threatened and endangered species could be affected. The Northern Cumberlands Forest Resources Habitat Conservation Plan (NCFRHCP) is a pending agreement with the U.S. Fish and Wildlife Service that was developed to fulfill requirements related to the incidental take of 3 federally listed species and 8 species in conservation need. If it receives final approval by the U.S. Fish and Wildlife Service, habitat management on the NCWMA (and therefore public lands of the ERZ) must be conducted in accordance with the NCFRHCP. For example, areas above 2100 feet modeled as habitat for Cerulean Warbler (*Dendroica cerula*), a species of conservation need, cannot be converted to wildlife openings.

Supplemental feeding has been used in some western U.S. states to carry large populations of elk through winters. However, one of the most important considerations regarding the supplemental feeding issue is the inherent risk of disease transmission at feeding sites. Wildlife disease specialists at the University of Tennessee School of Veterinary Medicine and the Southeastern Cooperative Wildlife Disease Study at the University of Georgia both recommended avoiding supplemental feeding of elk due to the risk of spreading diseases. The majority of eastern state agencies having winter climates much more severe than ours do not support initiating a program. Finally, the professional organization for wildlife biologists (The Wildlife Society) also opposes supplemental feeding of elk and other wild ungulates (TWS 2007). Given these and other factors, TWRA opposes an elk supplemental feeding program.

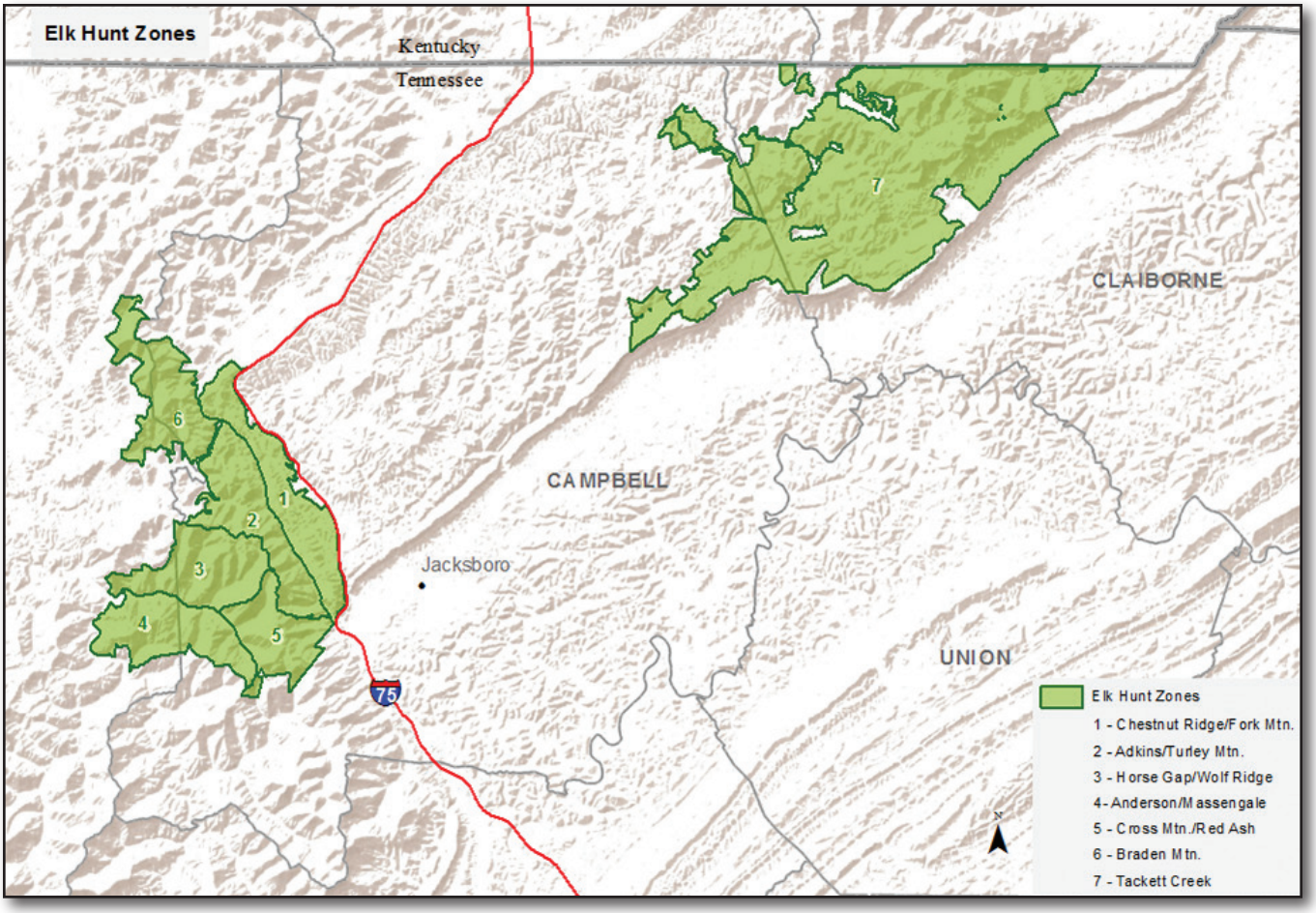
Recreation

One of the goals of the elk restoration proposal (TWRA 2000) was to "develop a self-sustaining herd, capable of providing wildlife viewing opportunities and sustainable hunting". To improve wildlife viewing opportunities for the general public, an elk viewing tower was constructed on NCWMA in August 2005. The Hatfield Knob Elk Viewing Tower overlooks a 35 acre field commonly used by elk and other wildlife. A survey conducted by the University of Tennessee estimated visitation rates from 2010-2013 and reported that over 16,000 people visited the tower in 2012. Additionally, numerous off-highway vehicle (OHV) enthusiasts visit many areas of the NCWMA for the opportunity to view elk.

The economic impact of the elk resource in Tennessee is not well understood and requires investigation. A study by Penn State University (Strauss 1999) concluded that visitation to the Pennsylvania elk range resulted in an economic impact of $1.3 million dollars annually. Furthermore, the total impact of elk hunting expenditures alone in Kentucky during 2013 and 2014 were $6.54 million and $5.68 million, respectively (KDFWR 2015), although their elk herd is much larger (≈ 10,000 animals) and encompasses a wider geographic area of 16 counties.

The first elk hunting season was established in 2009. Four hunters were randomly selected through a TWRA drawing and a fifth participant was the winner of an auction administered by a nongovernmental organization that subsequently donated the proceeds to TWRA's Elk Program. Each hunter was issued a permit for one antlered elk. The hunters were randomly assigned to EHZs 1, 2, 3, 4, or 5 (Figure 4). Elk Hunt Zone boundaries were delineated by roads and identifiable topographical features around areas of known elk occurrence.

Figure 4. Tennessee Elk Hunt Zones on North Cumberland Wildlife Management Area, 2017



The hunting season framework remained unchanged from 2009-2011. However, as detailed below, modifications to the hunting program have occurred over time.

- 2012 – A randomly drawn youth elk permit was created to allow one youth hunter to hunt any open elk zone over a weekend. Resultantly, a total of 6 elk permits were allotted for the 2012 season.
- 2013 and 2014 – The hunting framework was unchanged from the 2012 season.
- 2015 – Two new elk hunt zones were established (Zone 6/Braden Mountain & Zone 7/Tackett Creek; Figure 4). Again, a total of 6 elk permits were allotted.
- 2016 - A new five day archery season was created with a total of five additional permits. Elk permits were now also valid for private properties in Anderson, Campbell, Claiborne, Morgan, and Scott Counties with landowner permission. A total of 11 elk permits were issued for 2016.
- 2017 – The archery season was extended from 5 to 7 days in length, and the number of archery permits was increased from 5 to 7. All seven EHZs were hunted. The youth season was extended from a weekend hunt to a seven day hunt between the archery season and the archery/muzzleloader/gun season. The youth could hunt all seven EHZs. The archery/muzzleloader/gun season was also extended from 5 to 7 days in length, and the number of permits was also increased from 5 to 7. All seven EHZs were hunted and the total number of elk permits issued increased to 15.

Approximately 10,000 people annually apply for elk permits and harvest success is very high (>70% firearm & 25% archery). Through the 2017 season, a total of 41 antlered elk have been legally harvested in Tennessee (Table 2).

Table 2. Harvested elk (total points per antler) by year and Elk Hunt Zone (EHZ).

Year	EHZ 1	EHZ 2	EHZ 3	EHZ 4	EHZ 5	EHZ 6	EHZ 7
2009	6x6	6x6	7x6	7x6	6x5	Zone not established	Zone not established
2010	5x5	*	5x4	3x3	*		
2011	5x5	7x6	*	5x4	*		
2012	8x6; 5x5[y]	7x6	5x5	7x6	6x6		
2013	5x4; 1x1[y]	7x6	*	7x6	5x5		
2014	5x5; 8x6[y]	*	5x5	6x6	6x6		
2015	Rest year	5x3	*	Rest year	5x4; 6x5[y]	6x6	*
2016	Rest year	5x5	4x3	Rest year	6x5[i]	*	*
2017	5x5[a]; 4x4[y] 5x5; 6x6	5x4[a]	*	5x5[a]; 6x7	*	*	5x6

a = archery y = youth i = illegal * = unsuccessful

Elk-human Conflicts

The elk reintroductions occurred on the NCWMA, which is the approximate center of the ERZ. However, elk have dispersed onto adjacent private lands. Landowner attitudes regarding elk are varied. Although some landowners view elk as a special viewing opportunity, others experience livestock and agricultural conflicts. Conflicts have included: damages to crops, ornamental and fruit trees, fences, yards, and turf; pasture and hay use, and complaints of livestock harassment. Additionally elk-vehicle collisions have occasionally occurred, with no human fatalities or known injuries to date. Additional data regarding location, seasonality, and number of collisions is needed.

A variety of mitigation techniques have been employed by TWRA to address conflicts, including hazing, fencing, animal relocation, repellents, and depredation permits. Lethal measures such as depredation permits are a last resort, and any options that create any appearance of "paying for damage" are prohibited by law in Tennessee (TCA 9-8-307, Appendix C). Therefore, the agency does not provide cash payments, land rentals, or forage replacement to landowners. The agency response to conflicts will be dictated by site specific conditions utilizing the Elk Conflict Matrix contained within the Elk Conflict Response Plan (Appendix D).

Tennessee Code Annotated 70-4-116 (f) (2) (b) states that landowners outside the ERZ *"may take an elk found within a "no elk zone" when the owner, lessee, or designee reasonably believes the elk is causing or has caused damage to the owner's property"* (Appendix B). However, the code continues, *"In all other situations (e.g. within the ERZ), the farmland owner, lessee, or designee shall first provide the agency an opportunity to relocate the elk".* This distinction was developed in cooperation with the Tennessee Farm Bureau and the Tennessee Department of Agriculture during the initial planning and reintroduction efforts to address future nuisance elk issues pending elk moving outside the ERZ.

Education

TWRA efforts to distribute elk biology and life history information commonly occurred during the initial years of the elk restoration program. However in recent years, TWRA offers elk programs on an as-requested basis. Schools, social organizations, and education centers contact personnel and are provided a guest speaker and visual aids such as elk antlers and hides. TWRA also attends events such as the annual Big Creek ATV Festival in Lafollette, Tennessee. A TWRA booth is typically set up at such events and elk management is discussed with attendees. No pamphlets, posters, or other printed materials containing elk information are currently available. However, general elk information is available online on the TWRA website (www.tn.gov/twra/article/elk).

MANAGEMENT GOALS, OBJECTIVES, AND STRATEGIES

Population Goal: Manage for a healthy sustainable elk population within the ERZ in accordance with biological and social carrying capacities using the best available science.

- Objective A.1: Base harvest recommendations on population data.
  - Strategy A.1.a: Investigate new opportunities and techniques to better estimate current population and trends.
  - Strategy A.1.b: Increase the percentage of uniquely identifiable elk in the population to improve mark-resight population estimators.
  - Strategy A.1.c: Collaborate with university researchers to investigate growth rate and limiting factors.
- Objective A.2: Manage the elk population within ERZ.
  - Strategy A.2.a: Evaluate current ERZ boundaries in consideration of current and future elk distribution.
  - Strategy A.2.b: Coordinate with elk program biologists of the Kentucky Department of Fish and Wildlife Resources to manage adjoining elk populations.
- Objective A.3: Disease prevention and monitoring of herd for early detection of diseases.
  - Strategy A.3.a: Implement the Statewide Chronic Wasting Disease Surveillance Plan.
  - Strategy A.3.b: Submit non-hunter harvested elk carcasses for necropsy by the University of Tennessee, School of Veterinary Medicine.
  - Strategy A.3.c: Collaborate with TWRA Wildlife Veterinarian for herd health monitoring.
  - Strategy A.3.d: Continue to oppose proposals for baiting and artificial feeding practices within the ERZ.
- Objective A.4: Redistribute elk into unoccupied areas of NCWMA.
  - Strategy A.4.a: Relocate elk from areas having elk-human conflicts or over-abundant herds.

Habitat Goal: Conserve, enhance, and expand elk habitat within the ERZ.

- Objective B.1: Further investigate elk habitat preferences on NCWMA.
  - Strategy B.1.a: Affix GPS collars to elk across multiple areas of NCWMA.
  - Strategy B.1.b: Coordinate with universities to analyze movement/ habitat preference data.
- Objective B.2: Develop a 5-year habitat improvement plan for NCWMA with measurable objectives.
  - Strategy B.2.a: Utilize published literature, NCWMA research findings, and habitat modeling to determine locations for elk habitat improvement or creation on NCWMA.
  - Strategy B.2.b: Prioritize the location of habitat improvement or creation by identifying "Elk Focal Areas" on NCWMA to strategically utilize funding and manpower resources.
  - Strategy B.2.c: Identify potential corridors for connecting Elk Focal Areas within the ERZ.
- Objective B.3: Investigate additional opportunities for maximizing habitat improvement or creation on NCWMA.
  - Strategy B.3.a: Identify new partnership opportunities and funding sources to supplement existing budgets.

Strategy B.3.b: Utilize volunteer labor to accomplish habitat goals.
Strategy B.3.c: Investigate share crop agreements.
Strategy B.3.d: Explore feasibility of utilizing application fees from the elk drawing for elk habitat improvements.

Recreation Goal: Promote and enhance recreational opportunities associated with elk populations such as hunting, viewing, and tourism.

Objective C.1: Provide sustainable hunting opportunities on NCWMA.
Strategy C.1.a.: Encourage elk population growth by appropriate habitat enhancement and management on NCWMA.
Strategy C.1.b: Recommend harvest regulations for NCWMA consistent with population objectives.
Strategy C.1.c: Develop new or modify existing Elk Hunt Zones within NCWMA to increase hunter opportunity and increase management capability.
Strategy C.1.d: Develop a post-hunt questionnaire to evaluate satisfaction with the elk hunting program.
Strategy C.1.e: Evaluate current application process for improvement.
Objective C.2: Increase elk hunting opportunities.
Strategy C.2.a: Purchase additional lands within the ERZ to allow more WMA hunting opportunities.
Strategy C.2.b: Explore leasing hunting rights of additional lands within the ERZ.
Strategy C.2.c: Explore additional options allowing for harvest on private lands.
Objective C.3: Enhance elk viewing opportunities.
Strategy C.3.a: Investigate improving/replacing existing elk tower to increase structure's longevity and capacity.
Strategy C.3.b: Investigate creation of a second elk viewing area.
Strategy C.3.c: Increase elk viewing opportunities for mobility impaired persons.
Strategy C.3.d: Improve current signage directing/advertising visitors to the Elk Viewing Tower.
Strategy C.3.e: Investigate the installation of "livecam" at the Elk Viewing Tower.
Objective C.4: Increase public awareness of elk in Tennessee.
Strategy C.4.a: Explore with public/private leaders the feasibility of creating an "Elk Heritage Day".
Strategy C.4.b: Develop a marketing plan.
Strategy C.4.c: Determine and share economic value of elk in Tennessee.
Strategy C.4.d: Develop elk information materials for public dissemination.
Objective C.5: Balance Off-highway vehicle (OHV) recreational opportunities with risk of disturbing/harassing elk on NCWMA.
Strategy C.5.a: As future trails are planned, explore opportunities to consider and create elk habitat.
Strategy C.5.b: Evaluate current and future impacts of recreational OHV use.

Elk-Human Conflict Goal: Minimize elk-human conflicts to ensure continued support of the elk resource in Tennessee.

Objective D.1: Identify locations where elk move off NCWMA to adjacent private lands and create conflicts.
Strategy D.1.a: Utilize GPS monitored animals to verify and evaluate timing, duration, etc of movements between public and private lands.
Strategy D.1.b: Develop quality habitat on NCWMA near these areas to reduce movements onto adjacent private lands.
Objective D.2: Utilize recreational hunting as the primary option to address nuisance elk on private properties.

Strategy D.2.a: Explore harvest strategies that encourage and provide hunting opportunities on private lands within the ERZ.
Strategy D.2.b: Explore harvest strategies that encourage and provide hunting opportunities on private lands outside the ERZ.
Strategy D.2.c: Explore the pros/cons of a system for allowing landowners to be assigned transferable harvest permits.

Objective D.3: Work cooperatively with landowners to address nuisance elk on private properties.
Strategy D.3.a: Promptly address nuisance issues.
Strategy D.3.b: Follow the Elk Conflict Response Plan (Appendix D) to manage conflicts on private lands.
Strategy D.3.c: Utilize capture and translocation to reduce conflicts on private lands and supplement populations on the WMA.

Objective D.4: Monitor population levels to track population expansion and identify elk hot spots.
Strategy D.4.a: Develop elk sighting mobile app for documenting elk locations by the public.

Objective D.5: Investigate elk-vehicle collisions.
Strategy D.5.a: Develop an internal or multi-agency program to collect elk-vehicle collision data.
Strategy D.5.b: Evaluate potential sites for wildlife crossing structures that could reduce elk-vehicle collisions.

Objective D.6: Increase communication between TWRA and stakeholders to collect pertinent information and recommendations about elk management.
Strategy D.6.a: Host a facilitated discussion annually with stakeholders.
Strategy D.6.b: Conduct a scientifically valid stakeholder attitude and opinion survey.
Strategy D.6.c: Meet annually with partner organizations.

Education Goal: Educate the public about the elk resource in Tennessee to improve understanding and support of elk management goals.

Objective E.1: Improve Tennessee elk biology and natural history educational materials.
Strategy E.1.a: Create and distribute new educational materials to local businesses.
Strategy E.1.b: Create and distribute new educational materials for local schools.

Objective E.2: Improve Tennessee elk biology and natural history online materials.
Strategy E.2.a: Update TWRA Facebook page with elk information as needed.
Strategy E.2.b: Update TWRA website with elk information as needed.

Objective E.3: Improve elk habitat management educational materials.
Strategy E.3.a: Conduct at least one habitat management field day annually.
Strategy E.3.b: Install habitat educational signs in the Hatfield Knob Viewing Area.
Strategy E.3.c: Utilize TWRA Wildlife Habitat Biologists for landowner technical assistance.

PLAN MONITORING AND IMPLEMENTATION

The strategic elk plan provides a 10 year vision for the TWRA Elk Program. The program goals will take several years to be addressed. An Agency review and planning session will be conducted after the conclusion of each elk hunting season. This session will identify and prioritize goals and activities for the upcoming year via an annual operational plan. Accomplishments from the previous year will be outlined in the annual federal aid report submitted each fall. Additionally, public meeting(s) will be held each spring to review accomplishments from the past year and collect input on components of the annual operational plan.

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APPENDIX A

Public Scoping Workshops

The first public scoping workshop was held on May 16, 2017 at the Ball Farm Event Center in Lafollette, Tennessee. TWRA staff and 30 members of the public attended the workshop. The attendees provided a total of 116 comments at the break-out tables. The second workshop was held on May 18, 2017 at the Fairview Elementary School in Huntsville, Tennessee. TWRA staff and 10 members of the public attended the workshop. A total of 48 comments were recorded at the workshop.

The workshops began with presentations about the elk program and the North Cumberland Wildlife Management Area. Attendees were then assigned to one of five "break-out tables". Each table had a general theme that would be addressed with the strategic plan. The five themes were: recreation, population, conflicts, habitat, and education & special issues. The attendees' comments were recorded on large paper pads as a running list, and then attendees rotated to new break-out tables. However, break-out tables were not used at the Huntsville workshop due to limited attendance. Instead, the attendees participated in a group setting and time was allotted to discuss each of the five general themes.

After all comments were recorded on the pads, the attendees were provided three gold star stickers and asked to identify any comments that were particularly important. A single sticker or all three stickers could be applied to an individual comment. Comments with the most stars were considered most important to attendees. Some comments were not actionable or were beyond the scope of a strategic elk plan. Individual comments are presented in the table below.

Workshop #	Comment	# Stars	Relevant Strategy
1	Increase Population Within Elk Zone	5	A.1.a
2	Increase Overall Elk Population	5	A.1.a
1	Monitor Bear Populations Impact on Elk	0	A.1.c
1	Monitor Recruitment Rate	1	A.1.c
1	Identify Current Mortality Causes of Elk	2	A.1.c
2	Should Elk Zone be Decreased to TWRA Lands Only?	1	A.2.a
1	Expand Elk Restoration Zone	6	A.2.a
1	Kentucky and Tennessee Need to Work Together on North End- Where?	0	A.2.b
2	Kentucky Elk Coming Into Tennessee	0	A.2.b
1	Keep CWD Out	1	A.3.a & A.3.d
1	Supplemental Feeding (Hay, Cost Share)	1	A.3.d & B.3.c
1	Redistribute Elk Within Elk Zone	1	A.4.a & D.3.b
2	Move Some of Population to Other Areas of North Cumberland	2	A.4.a & D.3.b
2	Do Not Bring In More Elk	4	A.4.a & D.3.b
1	Continue Elk Reintroductions to Grow Sustainable Population	7	A.4.a & D.3.b
1	Strategic Plan (Include Conflict and Mgmt Plan,)	0	all strategies
1	Study Seasonal Influences	0	B.1.a & D.1.b
1	More Focus on Late fall, Early Winter, and Spring Forage	0	B.2.a & B.2.b

1	Timber Management- Seems Optimal (Any Negative Effects)(Forestry BMP'S)	0	B.2.a & B.2.b
1	Consistency of Disturbance	0	B.2.a & B.2.b
2	Fix habitat (Soon)	0	B.2.a & B.2.b
2	Look at Improving "Oil Fields and Mining Sites"	0	B.2.a & B.2.b
2	Riparian Zones are Preferred	0	B.2.a & B.2.b
1	Improving Habitat	1	B.2.a & B.2.b
1	Plan for New Food Plots near Problem Areas on WMAs	1	B.2.a & B.2.b
1	Spray/ Burn- Helicopter	1	B.2.a & B.2.b
1	Put in as Many Fields as Possible	1	B.2.a & B.2.b
2	Increase Timber Harvest, to Increase Browse on the WMA	1	B.2.a & B.2.b
1	Fire is "Future" for Elk Management- Coal is Declining, so Succession is Increasing	2	B.2.a & B.2.b
2	More Food Plots on WMA	2	B.2.a & B.2.b
1	Controlled Burns Excellent	3	B.2.a & B.2.b
1	Steer Away From "Shotgun" Approach for Openings	0	B.2.a & B.2.b
1	More, Larger Openings	1	B.2.a & B.2.b
1	Look at Landscape Scale	7	B.2.a & B.2.b
1	Lack of Management in Available Fields- Utilize Local Volunteers	3	B.2.a & B.2.b & B.3.b
1	Prioritize- Where is the Biggest Bang for Your Buck?	0	B.2.b
1	Possible Fundraiser for Elk Restoration Efforts	0	B.3.a
1	Market/ Sell Opportunities to Dart an Elk (Like hunting but Catch/Release Instead)	0	B.3.a
1	Wholesale Seed- NWTF etc.	0	B.3.a
1	Auction Off Opportunities to Assist Biologists with Darting/Relocating of Nuisance Elk	0	B.3.a
1	$$ Is the Big Limiting Factor (New Ideas for Funding, Sell Tennessee Elk Better)	1	B.3.a & B.3.b & B.3.c & B.3.d
1	More Funding Specifically For Elk	0	B.3.a & B.3.d
1	Partnerships Among Conservation Groups to Promote Elk Program	0	B.3.a &B.3.b & C.4.b
1	More Personnel in Elk Program	0	B.3.b
1	Elk Camp for Youth (Help With Management Activities)	0	B.3.b
1	Challenges=Labor Intensive for Volunteers, and Costly	0	B.3.b
1	Tennessee Promise??	0	B.3.b
1	Find People Interested in Elk Conservation (Look Outside of Tennessee)	0	B.3.b
1	3rd Party "Elk Camp"- Parents Pay $300 and youth Get Credit for Planting/ Working	1	B.3.b
1	Elk Camp for High school Juniors and Seniors to Assist with Elk Management	2	B.3.b

1	3rd Party Handles Conflict (Volunteers, Inmates, College and High School Students, Community Service, Etc.)	10	B.3.b
1	Cost Share Hay and Crops (Feds do it)	2	B.3.c
1	Reduce # of Permits	0	C.1.b
1	Youth Hunt- 2 Consecutive Weekends: 1 Permit	0	C.1.b
1	Do Not Increase Number of Tags	2	C.1.b
1	Largest Landowners are Out-of-State Investors (Can We Partner With Them? If so, go Larger)	2	C.2.b
2	Locals May Be Willing to Lease Farms for Food Plots	0	C.2.b
1	Lease Acreage next to Problem Areas and Improve Habitat for Elk on those Properties	9	C.2.b & D.1.a
1	Improving Elk Tower	3	C.3.a
1	Improve Elk Viewing Tower (Larger, ADA Accessible)	3	C.3.a & C.3.c
1	Promote Elk Viewing Opportunities	0	C.3.b & C.3.e
1	Tower ADA Access	0	C.3.c
1	Assigned Days to Provide ADA Access to Tower (TWRA)	0	C.3.c
1	Signage to Increase Awareness	1	C.3.d
1	Web Cam @ Tower	0	C.3.e
1	Internet Livecam of Elk	0	C.3.e
1	Engage Chamber of Commerce	0	C.4.a
1	Elk Program Celebration	0	C.4.a
1	Statewide Elk Heritage Day in Tennessee (Create Awareness)	1	C.4.a
1	Special Events at Tower (ATV Festival/Wounded Warrior/Handicapped Children etc.)	0	C.4.a & C.4.b
1	Improve Advertisement for Elk Viewing Opportunities	0	C.4.a & C.4.b
1	Promote Elk Viewing During Bugling (Schools, Social Media, Radio, Newspaper)	0	C.4.b
1	Develop Elk Tourism	1	C.4.b
1	Create Marketing Plan (Bigger Budget)	0	C.4.b
1	Work With Local TV Stations to Promote Special Events	0	C.4.b
1	Tours by Private Groups for Improved Elk Viewing Opportunities	0	C.4.b
1	Advertise Elk Viewing in Gatlinburg	0	C.4.b
2	Can Elk be Used to Increase Tourism?	0	C.4.b
2	Utilize Local Papers	1	C.4.b
2	Email List- Updates	1	C.4.b
1	Funding to Advertise	0	C.4.b
2	Elk Economic Value?	0	C.4.c
1	Educate Locals of Economic Benefit of Elk program to the community/County	3	C.4.c
1	Future Trail Construction needs to be mindful of Elk Habitat (Requirements)	1	C.5.a

1	Disturbance From OHV Use	0	C.5.b
1	Seasonal Impact From OHV Use	0	C.5.b
1	Disturbance From OHV (Noise)	0	C.5.b
2	Fix Habitat Near Nuisance Areas	1	D.1.a
1	Control/Manage Population to Mitigate Conflict	0	D.2.a & D.2.b & D.2.c
2	Landowners Allowed to Harvest Elk	7	D.2.a & D.2.b & D.2.c
1	Nuisance Animals Taken By Hunters (Not TWRA)	0	D.2.a & D.2.b & D.2.c
1	"Out of Elk Zone Elk Permit" (Like Kentucky and Virginia) Purchase and Kill 1-5 a year	0	D.2.b
1	Landowner Permit (Ranching for Wildlife)	0	D.2.c
1	Transferable Permit	0	D.2.c
2	Landowners Get Tags and Allowed to Sell to Offset Damage (Kentucky, 5000 acres=1 tag)	7	D.2.c
1	Corrals With Nuisance Elk	0	D.3.a & D.3.b
1	Be More Proactive with Nuisance Animals (I.D. Probable Areas/Situations and Devise Plan)	0	D.3.a & D.3.b
1	Trap/Relocate Instead of Depredation Permits	2	D.3.a & D.3.b
2	T.N. Population (Smith creek 60)	0	D.3.a & D.3.b
1	Get Current With Nuisance Technology	0	D.3.a & D.3.b
1	Reduce Conflicts With Landowners	0	D.3.a & D.3.b
2	High Tensile Fence	0	D.3.a & D.3.b
2	Landowners not Treated Equally in Elk Zone	1	D.3.a & D.3.b
1	Elk Damaging Ag Fields	0	D.3.a & D.3.b
1	Elk Trails causing Erosion	0	D.3.a & D.3.b
1	Elk Don't Know Boundaries (Fencing?)	0	D.3.a & D.3.b
2	Fence Destruction	0	D.3.a & D.3.b
2	Garden Destruction	0	D.3.a & D.3.b
2	Turkey Blinds Destroyed	0	D.3.a & D.3.b
2	Creek Erosion at Tractor Crossings	0	D.3.a & D.3.b
2	Habitat/Tree Destruction	0	D.3.a & D.3.b
2	Crop Damage (Hay) Est. $3,000 Dollar Loss	0	D.3.a & D.3.b
2	Lawn damage	0	D.3.a & D.3.b
2	Pond Erosion/Edges	0	D.3.a & D.3.b
2	Fear of Bulls Charging Humans	0	D.3.a & D.3.b
2	Small/ Localized Area (Smith Creek)	0	D.3.a & D.3.b
2	Cant Lease Fields for cattle or Crops	0	D.3.a & D.3.b
2	Fences need to be redone or Maintained	0	D.3.a & D.3.b
2	Conflict w/ Deer Hunting (Elk Eating Deer Food plots)	0	D.3.a & D.3.b
1	Darting Rather Than Depredation Permits	7	D.3.a & D.3.b

1	Subsidy For Elk Forage	0	D.3.a & D.3.b
2	Elk Mitigation Fund** November 2000	0	D.3.a & D.3.b
1	Damage Mitigation and Prevention Fund (Supposed to be Established in 2000)	2	D.3.a & D.3.b
1	Provide Landowner Support Without Issuing Depredation Permits	2	D.3.a & D.3.b
2	Conflicts May Increase as Population Grows	0	D.3.a & D.3.b
1	Holding Pen (Release to Better Location)	0	D.3.b
2	Elk -Vehicle Collisions	0	D.5.a
1	People Feel left in the Dark and Don't Know What to do About the Elk	0	D.6.a
1	More Public Meetings (Let the public make more of an impact)	0	D.6.a
2	Transparency with All Elk Issues -Facts	0	D.6.a
2	TWRA in Local Shoes	0	D.6.a
2	Citizen Task Force- Invite TWRA, NWTF, RMEF etc.	2	D.6.a
1	Negative Publicity- Insurance Agency in Rural Areas	0	D.6.a & D.6.b
1	Need to Document Good Interactions	2	D.6.a & D.6.b
1	Evaluate Carrying Capacity (Biological and Social)	0	D.6.a & D.6.b
1	Do We actually Know/Have an Estimate of the Damage Elk Cause?	0	D.6.b
1	Education about Elk Resources	0	E.1.a & E.1.b
1	Better Distribution of and More Literature About Elk Program	0	E.1.a & E.1.b
1	Promote Elk Education In Schools	0	E.1.b
1	Improve Facebook Page For Elk	0	E.2.a
2	Elk Website -Dedicated, Updates	1	E.2.b
1	Understanding of Rx Fire Need/ Value VS Risk (Concerns about Gatlinburg)	0	E.3.a & E.3.b
1	Effects of Fire: Positive-Creates Habitat Negative-Push Elk From Area?	0	E.3.a & E.3.b
1	Use P.R. to Educate on Wildfire Vs. Controlled Burns	0	E.3.a & E.3.b
1	Show Holistic Benefits of Elk Habitat (Not Just for Hunting Elk)	0	E.3.a & E.3.b
1	Provide Landowners with Elk Management Education to Use on Their Property	0	E.3.a & E.3.c
1	More Outreach on Private Lands- Meeting 2x a Year, Brochures, Education, Guides	2	E.3.a & E.3.c
1	Possible Position like TWRA/ NRCS	0	E.3.C
1	Farm Bill (USDA, NRCS & Ag Funding- Erosion)	0	E.3.c
2	Habitat Assistance for Locals Willing to Manage for Elk	0	E.3.c
1	Increase Penalty for Poaching	0	not addressed

1	Consider Reintroduction From Wild Herds in the Western U.S. to Improve Genetics	0	not addressed
1	Security Issue With Elk Viewing Public On People's Property	0	not addressed
1	Is it Land or Leaseholders Having Conflicts?	0	not addressed
1	Archery Deer Hunters Required to Wear Orange During Elk Hunts	0	not addressed
2	Rhedona Rose (Farm Bureau)	0	not addressed
2	Security Issue	0	not addressed
2	Trespassing Issues- Shed Hunting	0	not addressed
2	Kudos for Work at Viewtree Knob	0	not addressed
2	Do more "Viewtree Knobs" With a Little Habitat Work	0	not addressed
2	N.C. Study Elk Model	0	not addressed
1	Improve Road to Elk Viewing Tower	1	not addressed
1	Improve Road to Elk Viewing Tower	1	not addressed
1	Propagate Elk Within Restoration Zones Using Holding Pens	3	not addressed

APPENDIX B

Tennessee Code Annotated § 70-4-116

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*** Current through Chapter 85 of the 2017 Regular Session. The commission may make editorial changes to this version and may relocate or redesignate text. Those changes will appear on Lexis.com and Lexis Advance after the publication of the certified volumes and supplements. Pursuant to TCA sections 1-1-110, 1-1-111, and 1-2-114, the Tennessee Code Commission certifies the final, official version of the Tennessee Code. Until the annual issuance of the certified volumes and supplements, references to the updates made by the most recent legislative session should be to the Public Chapter and not TCA. ***

Title 70 Wildlife Resources
Chapter 4 Miscellaneous Regulations
Part 1 Hunting and Fishing
Tenn. Code Ann. § 70-4-116 (2017). Hunting, killing and possession of deer, bear, wild elk and wild turkey -- Transporting -- Tagging -- Penalties.

(a) Notwithstanding any law or any public or private act to the contrary, it is unlawful for any person to hunt or take deer, bear or wild elk with any shotgun using ammunition loaded with more than one (1) solid ball or rifled slug, or with any rifle using rim-fire cartridges. Bows and arrows are prohibited except as prescribed by the fish and wildlife commission.

(b) It is unlawful to hunt, pursue, capture, possess, transport or store any deer, wild turkey, bear or wild elk either male or female, in this state, at any time or in any area other than at times and within the area designated by the commission in its promulgation of open seasons, as provided by this title.

(c) Subsections (a)-(c) do not apply when such deer, wild turkey, bear or wild elk has been killed outside the boundaries of this state. Possession of such game in any closed season or boundary, except as provided in subsection (e), is prima facie evidence of guilt under this section. Any person found in possession of a deer, wild turkey, bear or wild elk and claiming that it was killed outside the state shall present to the executive director, or to any court hearing a cause pursuant to this title, sufficient proof to establish that the animal was so killed.

(d) (1) Any person killing or possessing, or both, a deer, wild turkey, bear or wild elk shall tag the animal in accordance with procedures set out in the proclamation. Any deer, wild turkey, bear or wild elk that has not been tagged in accordance with this chapter or any proclamation promulgated in accordance with this title may be confiscated and disposed of as provided by law.

(2) The commission is authorized to issue special quota harvest tags for certain species, or sexes of species, requiring limited harvest. The commission is authorized to adopt rules and regulations that would permit granting to landowners special consideration in the issuance of special quota harvest tags.

(3) A violation of this subsection (d) is a Class C misdemeanor.

(e) (1) A violation of subsections (a)-(c) is a Class B misdemeanor except that a violation of any of these subsections relative to wild elk shall be a Class A misdemeanor. It is mandatory upon the court to impose the prison sentence, upon conviction for a second or subsequent offense, and the prison sentence is not subject to suspension.

(2) In the prosecution of second or subsequent offenders, the indictment or presentment must allege the prior conviction for violating any of the provisions of subsections (a)-(c), setting forth the time and place of each such prior conviction. The court shall prohibit such convicted person, either a first or subsequent offender, from hunting, fishing or trapping in this state for a period of one (1) year.

(f) (1) In addition to the punishments authorized by this title, any court that convicts a person of killing or possessing a white-tailed deer, wild turkey, bear, or wild elk in violation of this title may order that person to pay restitution for the animal to the agency in the following amount:

(A) Not less than one thousand dollars ($1,000) per animal, for each of the following that is illegally killed or possessed:

(i) Wild turkey;

(ii) White-tailed deer with no antlers; and

(iii) Antlered white-tailed deer with less than eight (8) antler points;

(B) Not less than one thousand five hundred dollars ($1,500) per animal, for each of the following that is illegally killed or possessed:

(i) Wild elk with no antlers; and

(ii) Antlered wild elk with less than eight (8) antler points;

(C) Not less than one thousand dollars ($1,000) per animal plus five hundred dollars ($500) per antler point, for each antlered white-tailed deer with at least eight (8) but not more than ten (10) antler points that is illegally killed or possessed;

(D) Not less than one thousand dollars ($1,000) per animal plus seven hundred fifty dollars ($750) per antler point, for each antlered white-tailed deer with eleven (11) or more antler points that is illegally killed or possessed;

(E) Not less than one thousand five hundred dollars ($1,500) per animal plus five hundred dollars ($500) per antler point, for each antlered wild elk with at least eight (8) but not more than ten (10) antler points that is illegally killed or possessed;

(F) Not less than one thousand five hundred dollars ($1,500) per animal plus seven hundred fifty dollars ($750) per antler point, for each antlered wild elk with eleven (11) or more antler points that is illegally killed or possessed; and

(G) Not less than five thousand dollars ($5,000) per animal, for each bear that is illegally killed or possessed and for each bear cub that is orphaned by the illegal killing or possession of a bear.

(2) (A) If the conviction is based on the killing or possession of a wild elk and the court orders restitution pursuant to subdivision (f)(1), in addition to any other relevant factors to consider when determining the amount of restitution, the court shall also include the costs associated with the reintroduction of a wild elk.

(B) Notwithstanding any provision of law to the contrary, a farmland owner, lessee, or designee may take an elk found within a "no elk zone" when the owner, lessee, or designee reasonably believes the elk is causing or has caused damage to the owner's property. In all other situations, the farmland owner, lessee, or designee shall first provide the agency an opportunity to relocate the elk. The "no elk zone" shall be defined by the commission.

(g) In addition to the punishments authorized by this title, any court that convicts a person of killing or possessing a white-tailed deer, wild turkey, bear, or wild elk in violation of this section shall revoke any license that was issued to the person under this title until the person has paid in full all restitution that the court ordered the person to pay.

HISTORY: Acts 1951, ch. 115, §§ 42, 43, 47; 1953, ch. 226, § 3 (Williams, §§ 5178.71, 5178.72, 5178.76); Acts 1957, ch. 382, § 6; 1957, ch. 384, § 1; 1959, ch. 145, § 4; 1961, ch. 198, §§ 2, 3; 1970, ch. 597, § 1; 1973, ch. 288, § 1; impl. am. Acts 1974, ch. 481, §§ 6, 7; Acts 1974, ch. 481, § 21; 1975, ch. 244, § 1; 1976, ch. 681, § 1; 1978, ch. 626, § 1; 1979, ch. 198, § 1; 1980, ch. 644, § 1; 1982, ch. 701, §§ 4-6; 1982, ch. 738, § 20; T.C.A. (orig. ed.), §§ 51-425, 51-426, 51-429; Acts 1983, ch. 385, § 4; 1984, ch. 551, § 1; 1985, ch. 310, § 1; 1988, ch. 592, §§ 1-3; 1989, ch. 591, § 113; 1990, ch. 891, § 14; 1990, ch. 981, § 3; 1999, ch. 91, § 1; 2001, ch. 103, §§ 1-4; 2006, ch. 615, § 1; 2008, ch. 715, § 1; 2011, ch. 283, §§ 2-5; 2012, ch. 993, § 13; 2015, ch. 370, § 1.

APPENDIX C

Tennessee Code Annotated 9-8-307

Monetary claims against the state; limitations, waiver, and immunity; jurisdiction

(a) (1) The commission or each commissioner sitting individually has exclusive jurisdiction to determine all monetary claims against the state based on the acts or omissions of "state employees," as defined in § 8-42-101, falling within one (1) or more of the following categories:

(A) The negligent operation or maintenance of any motor vehicle or any other land, air, or sea conveyance. In addition, the state may be held liable pursuant to this subdivision (a)(1)(A) for the negligent operation of state-owned motor vehicles or other conveyances by persons who are not state employees; provided, that such persons operated the vehicle or other conveyance with the permission of a state employee;

(B) Nuisances created or maintained;

(C) Negligently created or maintained dangerous conditions on state controlled real property. The claimant under this subdivision (a)(1)(C) must establish the foreseeability of the risks and notice given to the proper state officials at a time sufficiently prior to the injury for the state to have taken appropriate measures;

(D) Legal malpractice or health care liability by a state employee; provided, that the state employee has a professional/client relationship with the claimant;

(E) Negligent care, custody and control of persons;

(F) Negligent care, custody or control of personal property;

(G) Negligent care, custody or control of animals. Damages are not recoverable under this section for damages caused by wild animals;

APPENDIX D

Elk Conflict Response Plan

All reintroduced elk were released onto the North Cumberland Wildlife Management Area located in the approximate center of the Tennessee Elk Restoration Zone (ERZ). As elk populations have increased, dispersal has occurred onto adjacent private lands. Landowner attitudes regarding elk are quite varied. Some see elk as majestic animals that provide a special wildlife viewing opportunity. However, others such as some livestock or crop producers perceive elk as an economic cost.

Response to human-elk conflicts is guided by agency policy, manpower, and budgets. All elk complaints will be investigated by the elk biologist and/or wildlife officer and documented via the TWRA incident reporting system. The agency response will be dictated by site specific conditions utilizing the Elk Conflict Matrix within this Response Plan. Allowing hunting is the most preferred option to address elk issues, as it provides recreational opportunities and minimizes expenditure of TWRA manpower and funds, and should be the initial recommendation to landowners. Options that create the appearance of "paying for damage" are not viable in Tennessee due to Tennessee Code Annotated 9-8-307. Therefore, the agency does not provide cash payments, land rentals, or forage replacement to landowners.

Site visit/conflict documentation

Not all elk complaints will require a site visit. Some issues may be resolved via a phone call and others with a site visit and sharing of elk biological information. However, all nuisance elk phone calls should be documented even if a site visit is not conducted. If a site visit is conducted, documentation of issue and extent of damage should be recorded via the TWRA incident reporting system. Many site visits will only require a conversation and sharing of elk biological information.

Hazing/Harassing animals

Attempts to haze/harass animals should be conducted by the landowner if at all possible. If the landowner is not physically capable of using hazing materials, agency personnel may perform activities with Regional Wildlife Program Manager approval. Hazing materials may include shotgun-fired rubber slugs, shotgun blank rounds, or other similar items. The landowner must demonstrate safety and capability with items and sign an Elk Hazing Form. All hazing activities must be recorded on the Elk Hazing Form.

Fencing materials

Electric or semi-permanent fencing materials will be provided upon request and after documentation of elk damage to gardens, orchards, cemeteries, etc. that are one acre or less in size. Installation of fences will be the responsibility of the landowner. However, in cases of physical limitations of the landowner, agency staff may install fences with Regional Wildlife Program Manager approval. If fencing materials are provided by TWRA, a Fencing Loan Form must be completed and signed by the landowner. If fencing materials are provided by an outside party, that party and the landowner will determine any terms for fencing ownership.

Relocation of animals

Relocating elk is a complex and costly endeavor. Multiple agency staff are necessary to handle the requisite vehicles, materials, and immobilized animal(s). Relocation should not occur if temperatures will exceed 60°F or are below 25°F. The elk biologist will supervise the relocation of elk and provide needed drugs and equipment. Relocation is complicated when elk will be captured in agriculture sites. The physical act of sledding and/or loading elk may cause damage to agricultural crops. Therefore, the use of relocation will be highly site dependent.

Lethal control

Lethal control aside from regulated hunting is considered a last resort. In special situations TWRA personnel may euthanize elk. Lethal control should be used for addressing individual animals, not as a form of population management. An appropriate charitable feeding organization should be contacted and be prepared to accept the meat prior to any control actions.

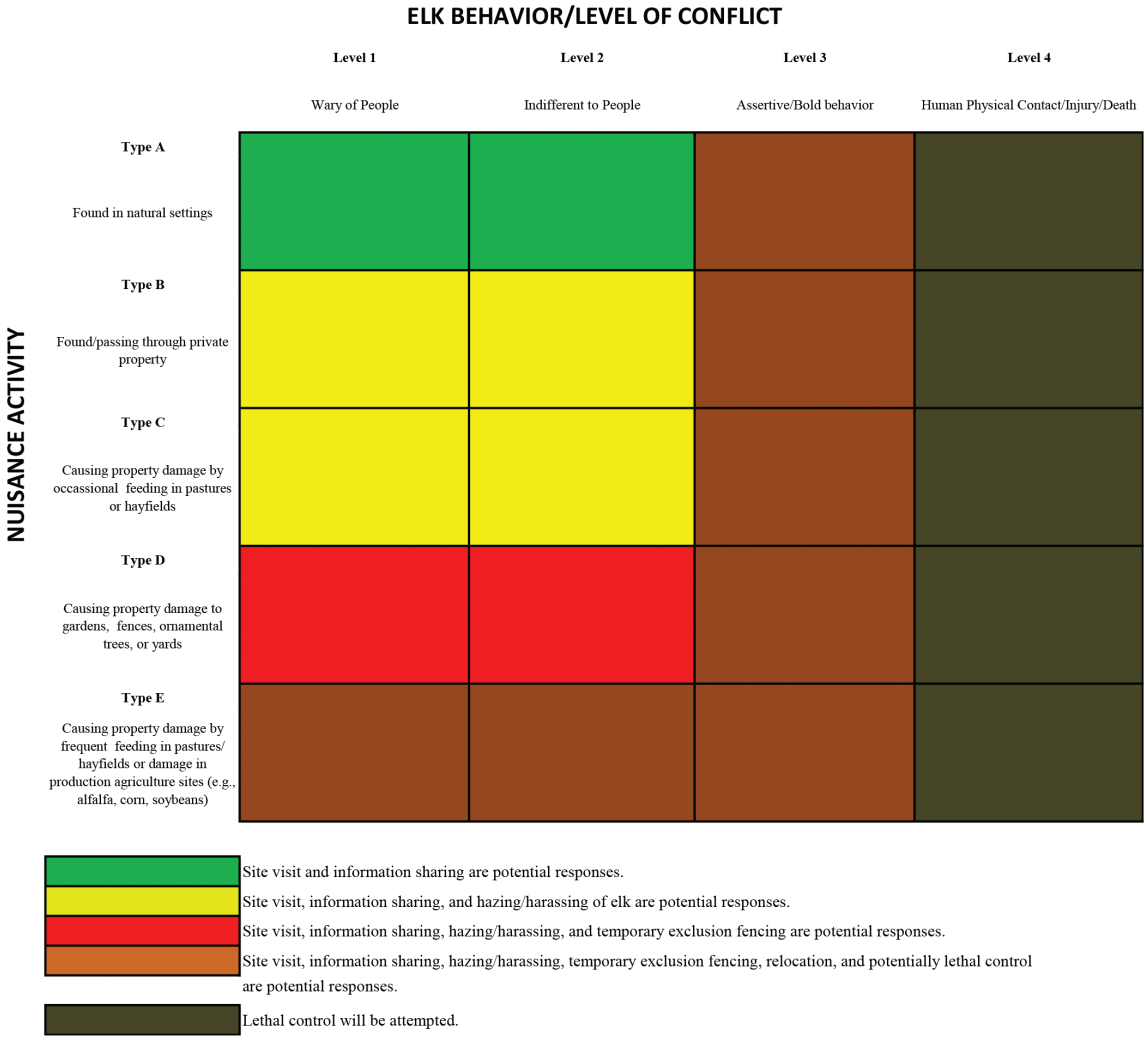
Current agency policy is that no depredation permits will be issued to landowners unless TWRA personnel or their designees are first allowed a sufficient amount of time to attempt relocation of nuisance animals (February 28, 2017 per TWRA Director). Furthermore, lethal control by TWRA personnel must be attempted before issuance of depredation permits to landowners. If depredation permits are issued to landowners, any antlers will remain the property of TWRA and used for educational purposes. Disposition of carcasses will be determined by TWRA on a case by case basis.

Lethal control by landowners outside the depredation permit protocol is allowable by T.C.A. 70-4-116 (f) (2) (b), but with certain stipulations. The code provides for the killing of elk by landowners both "within" and "outside" the elk restoration zone (Appendix B) as follows:

(B) Notwithstanding any provision of law to the contrary, a farmland owner, lessee, or designee may take an elk found within a "no elk zone" when the owner, lessee, or designee reasonably believes the elk is causing or has caused damage to the owner's property. In all other situations, the farmland owner, lessee, or designee shall first provide the agency an opportunity to relocate the elk. The "no elk zone" shall be defined by the commission.

Therefore, if the damage is within the ERZ the landowner must first give TWRA a chance to relocate the elk. Damage outside the ERZ does not require the landowner to notify TWRA before killing the elk. In most cases the landowners do not want the elk killed but simply want a remedy to their damage. This is where other options to prevent further damage should be conducted.

Elk Conflict Matrix



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