Tennessee Wildlife Resources Agency

Turkey Management in Tennessee

2020-2025

A Strategic Plan for the Continued Management of Wild Turkeys in Tennessee

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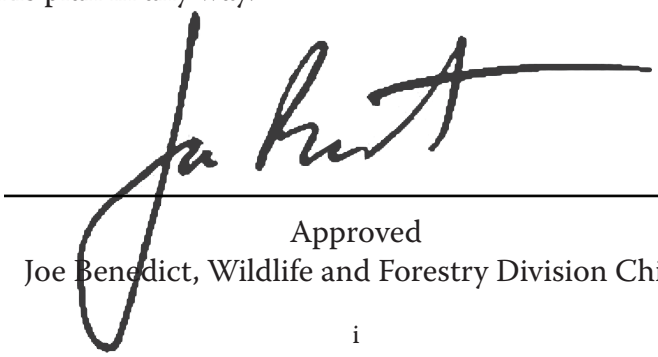

Approved
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Table of Contents

Executive Summary

Because wild turkeys are a valued wildlife resource to citizens and visitors of Tennessee, the Tennessee Wildlife Resources Agency (TWRA) initiated a comprehensive planning effort to develop a 5-year strategic plan for managing wild turkeys in the state. Members of the Wild Turkey Management Team, a panel of TWRA staff and representatives from select partner organizations with scientific knowledge, experience and expertise from multiple disciplines and regions across the state, reviewed biological and social data as well as input from other TWRA employees and stakeholders. From this we developed an over-arching vision statement, three broad goals and supporting objectives with defined strategies and tasks designed to accomplish the stated goals.

Our vision:

"To perpetuate long-term stability of wild turkey populations in balance with stakeholder values in all appropriate landscapes across Tennessee."

The foundation of the plan is its three major goals:

1. Population Goal: Manage wild turkeys for healthy, productive and sustainable populations statewide, taking into account stakeholder values and expectations.

2. Habitat Goal: Establish and maintain or enhance wild turkey habitat on public and private land required to achieve turkey population goals.

3. Communication Goal: Exchange information that increases understanding of and appreciation for the conservation and management of wild turkeys and leads to greater conservation action by agency staff, our stakeholders and the public at large.

The plan provides strategic guidance and lists specific actions regarding those elements of management that will be the most valuable to take over the next five years. It does not, however, identify every activity the agency will perform related to wild turkeys and their management. Nonetheless, accomplishment of this plan will ensure key steps are taken to conserve and effectively manage wild turkeys in the state.

The following are the objectives for this plan:

- Improve the population monitoring system.
- Develop hunting regulations and other management alternatives that are consistent with desired population levels and trends, address hunter and other stakeholder preferences, and take into consideration existing knowledge of wild turkey population dynamics.
- Monitor wild turkey health through routine disease surveillance.
- Increase or enhance wild turkey habitat on public lands.
- Promote habitat management practices that increase or enhance wild turkey habitat on private lands.
- Increase engagement with internal and external stakeholders.
- Develop and share information to educate the public about wild turkey biology, ecology, habitat and harvest management, hunting and ongoing research activities.
- Promote wild turkey hunting in Tennessee and provide hunters and other stakeholders up-to-date information on turkey biology and population dynamics.

Our vision is:

"To perpetuate long-term stability of wild turkey populations in balance with stakeholder values in all appropriate landscapes across Tennessee."

Introduction

Eastern wild turkeys (*Meleagris gallopavo silvestris*, hereafter wild turkey) are an important wildlife resource ecologically, culturally, economically and recreationally in Tennessee. The foundation of the North American Model of Wildlife Conservation is the philosophy that wildlife is a public resource to be held in trust, by the government, for present and future generations. TCA 70-1-301 created the Tennessee Wildlife Resources Agency (TWRA) and conferred full jurisdiction and management responsibility of the state's wildlife resources to TWRA for the residents of Tennessee.

The mission of TWRA is to "…protect, preserve, and perpetuate Tennessee's wildlife and ecosystems for the sustainable use and recreational benefits for our state's residents and visitors." Wild turkeys are a key component of this mission.

This strategic plan describes a vision for the direction of TWRA's Turkey Management Program, including goals and a range of strategies to meet those goals. It outlines the objectives and steps TWRA, working with its partners, will take over the next five years to ensure wild turkeys are managed appropriately to meet the mission and the expectations of stakeholders. The plan does not identify every activity TWRA will perform related to wild turkeys and their management, but accomplishment of this plan will ensure key steps are taken for the conservation and effective management of wild turkeys in Tennessee.

History of Wild Turkey Management in Tennessee

When European colonization of Tennessee began in the early 1800s, wild turkeys were fairly abundant. However, pressures of settlement beginning in the 1830s led to a long and steady decline in wild turkey numbers. Speculatively, this decline was the result of habitat modification and unregulated hunting. Early attempts at restoration involved the release of pen-reared birds into the wild, but these birds did not possess the characteristics necessary to survive and successfully reproduce in the wild. Consequently, no self-sustaining wild flocks were established as a result of these releases (Markham 1997, TWRA 2006).

In 1951, only hunters in Shelby and Polk counties reported harvesting any wild turkeys. The total harvest was just 14 birds, taken during the ten days of legal hunting (TWRA 1981). A survey conducted in 1952 indicated wild turkeys were present in only 18 of Tennessee's 95 counties (TWRA 1954).

Beginning in the 1950s, trap and translocation

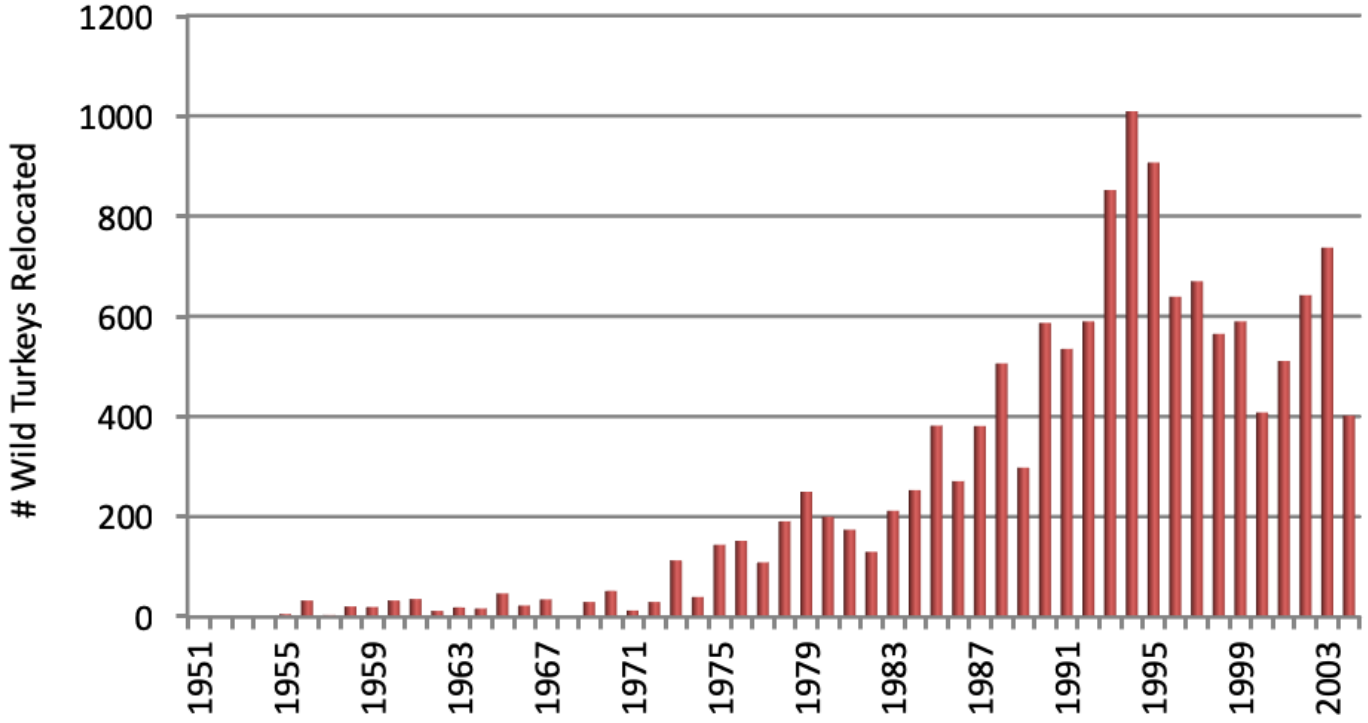


Figure 1. *Number of live-trapped wild turkeys relocated to suitable areas in Tennessee, 1951-2004.*

efforts, made possible largely by development of the cannon-netting technique, led to re-establishment of wild turkeys in many areas of the state. Due to intensive restoration efforts by TWRA and conservation partners, wild turkey populations began to increase. The number of Tennessee counties with wild turkeys increased to 58 by 1979; to 72 counties by 1983; and to all 95 counties by 1990 (TWRA 2006). In all, from 1951 to 2004 TWRA live-trapped and relocated 13,856 wild turkeys (Figure 1) creating a self-sustaining statewide population present in all counties and restoration was considered complete (TWRA 2006). In fact, restoration efforts were so successful Tennessee became a source for re-establishment efforts elsewhere, including Texas, Maryland and Canada (TWRA 2006). Upon completion of Tennessee's restoration effort, focus of the wild turkey program turned to managing the newly established statewide population.

Current Status

Following restoration, certain parts of the state experienced tremendous wild turkey population growth. Harvest trends indicate that in many counties wild turkey populations increased rapidly during restoration, reached a peak and then declined for a time before stabilizing around carrying capacity (Figure 2). This pattern strongly suggests density-dependent mechanisms are influencing these turkey populations (Byrne et al. 2015), a natural occurrence for most restored wildlife populations. Localized annual fluctuations in population numbers are expected moving forward because spring turkey production, which primarily drives turkey populations, can be particularly affected by weather and other factors, especially when a population has reached the habitat's carrying capacity.

More severe population declines have been observed in other areas of the state, particularly in south-central Tennessee, causing local residents, hunters and managers concern that additional population-level factors are impacting these populations (Buehler et al. 2016). In response, TWRA, the University of Tennessee and the National Wild Turkey Federation (NWTF) partnered on a six-year research project to determine what factors are driving turkey population fluctuation in southern middle Tennessee and develop strategies to address issues that are identified. The study, which began in 2016, involves radio-marking and monitoring wild turkeys in five counties, as well as collecting information regarding hunting pressure, disease prevalence and hunter attitudes and opinions (Buehler et al. 2016). The design and scope of this project should allow inference of study results and strategies to a much broader scale.

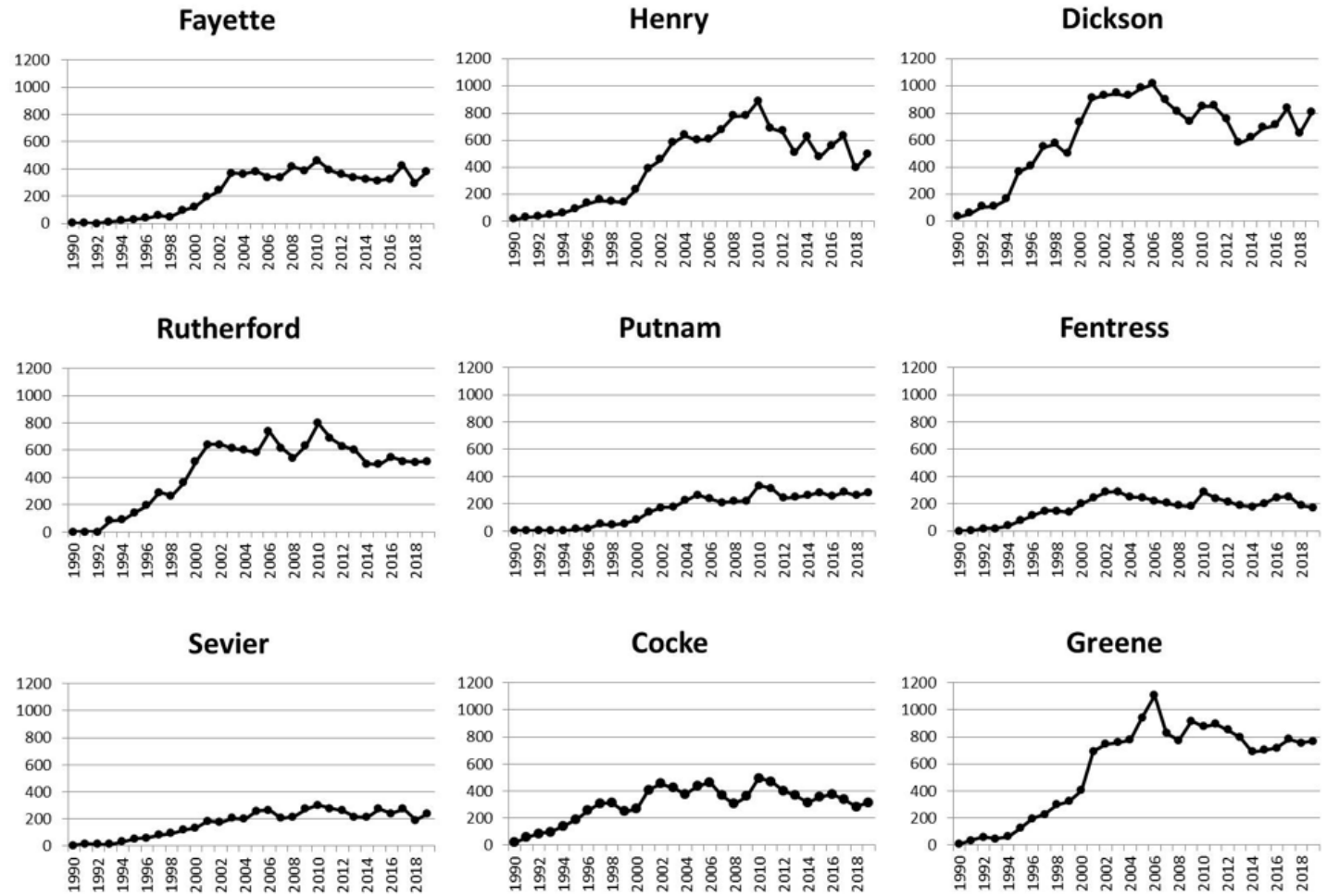
Wild turkey numbers are influenced by a multitude of factors including: natural carrying capacity, disease concerns, extreme weather events, economic factors, societal attitudes and recreational opportunities. Many times, preferred population status will vary greatly between individual interest groups based on factors other than biology. Given these multiple biological and social factors, TWRA finds itself charged with attaining a balance among competing interests in regards to the ideal population size. Most importantly, this balance must first and foremost be based on biology and sound scientific principles to ensure achievement of the overall goal of maintaining sustainable populations of wild turkeys, which were practically absent from the Tennessee landscape at one time.

The popularity of wild turkeys as a game species versus concern among agricultural producers and homeowners about crop losses and other forms of damage caused by wild turkeys in some areas of the state have brought about new challenges concerning turkey management. Large numbers of turkeys in certain parts of the state have brought about conflicts and in some instances economic losses. The strategies in this plan seek to resolve these issues while optimizing the perceived value of wild turkeys by the public.

Wild turkey populations increased rapidly during restoration, reached a peak and then declined for a time before stabilizing around carrying capacity.

Localized annual fluctuations in population numbers are expected, especially when a population has reached the habitat's carrying capacity.

A.



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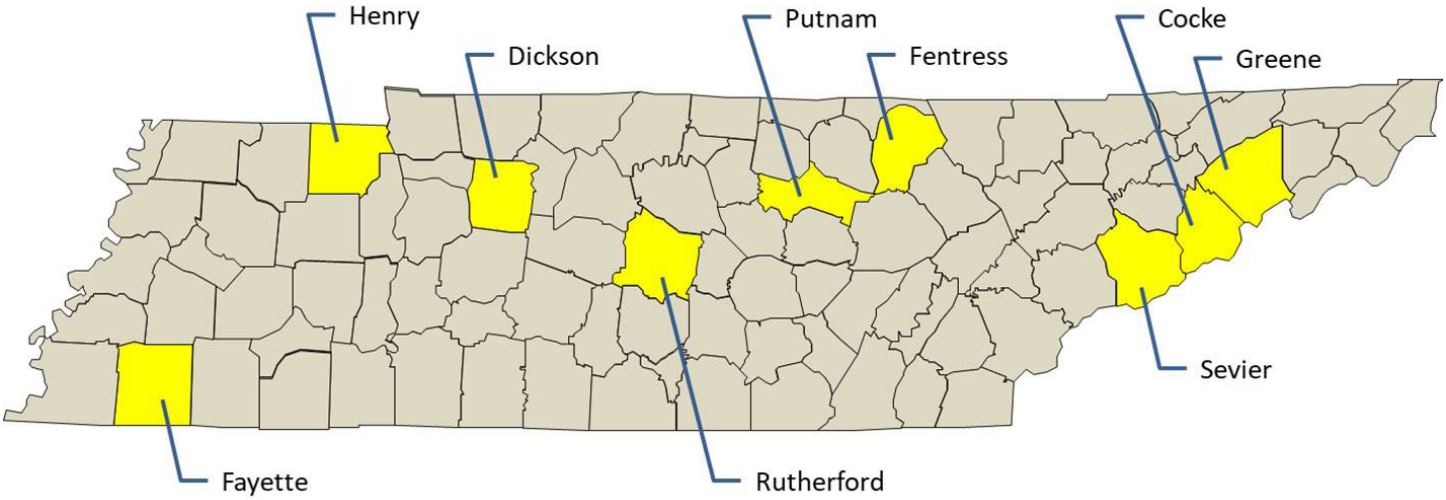

Figure 2.

A. *Wild turkey spring season harvest trends from 1990-2019 from representative Tennessee counties depicting a prevalent population growth pattern among most counties. Harvest numbers are an index of population numbers, wherein populations in many counties grew rapidly followed by stabilization, fluctuating around a number below the peak obtained.*

B. *State map indicating location of select counties.*

About the Plan

This plan is organized in a hierarchical fashion, with goals, objectives, strategies and tasks.

Goals	The end result TWRA is working to accomplish for a primary area of emphasis.
Objectives	Specific steps TWRA and partners will take to achieve the goal.
Strategies	Overall approach to achieve objectives.
Tasks	Specific actions to achieve the strategies and objectives.

Acronyms

Common acronyms used within the text are defined here for quick reference.

ESRI	Environmental Systems Research Institute (an international supplier of geographic information system software, web platforms and geodatabase management applications)
NGO	Non-governmental Organization
NWTF	National Wild Turkey Federation
SCWDS	Southeastern Cooperative Wildlife Disease Study
SOP	Standard Operating Procedure
TCA	Tennessee Code Annotated
TWRA	Tennessee Wildlife Resources Agency
USDA	United States Department of Agriculture
WMA	Wildlife Management Area

Population Goal

Manage wild turkeys for healthy, productive and sustainable populations statewide, taking into account stakeholder values and expectations

By their very nature, wild turkey populations can fluctuate broadly from year to year, driven largely by annual reproductive success or failure. In order to make management decisions that will maintain long-term sustainable wild turkey populations and address stakeholder expectations —including viewing and recreational opportunities, we must effectively monitor the population status over time and, as required, appropriately apply management alternatives designed to produce desired outcomes. Fundamental to this goal is the underlying desire to conserve this resource for the benefit of both present and future generations.

Objective 1

Improve the population monitoring system

To effectively manage wild turkey populations, it is essential to monitor their status to determine whether the population is stable, growing, or declining and how this varies spatially across the state. Having reliable and accurate data is critical to accomplishing this.

STRATEGY 1.1 ESTIMATE ANNUAL HARVEST AND HUNTER PARTICIPATION AND EFFORT TO MONITOR POPULATION TRENDS

1.1(a) Conduct an annual harvest survey to obtain estimates of hunter effort, participation and harvest at an appropriate scale for management.

Initially, survey data will be gathered at the TWRA regional scale, but as management units are developed (see Strategy 4), they will become the scale of reference.

1.1(b) Explore mechanisms by which to include license-exempt hunters in annual surveys.

1.1(c) Utilize the hunter surveys conducted as part of the 2016-2021 University of Tennessee turkey research project (Buehler et al. 2016) to assess hunter effort and harvest numbers.

STRATEGY 1.2 COLLECT SUPPLEMENTARY HARVEST DATA TO FURTHER INFORM MANAGEMENT DECISIONS

1.2(a) Continue to monitor annual mandatory reported turkey harvest numbers and associated biological metrics; compare reported harvest to harvest survey estimates and evaluate accuracy of mandatory harvest reporting data.

1.2(b) Develop and implement a leg band recovery study to obtain estimates of harvest rates across the state, measure annual variability and identify covariates impacting harvest rates.

STRATEGY 1.3 ANNUALLY ESTIMATE POPULATION PRODUCTIVITY TO MONITOR RECRUITMENT AND POPULATION STABILITY

1.3(a) Continue to conduct the annual TWRA Summer Brood Survey to index recruitment.

1.3(b) Utilize reproductive vital statistics from the 2016-2021 University of Tennessee turkey research project (Buehler et al. 2016) to evaluate accuracy and effectiveness of the productivity data obtained from TWRA Summer Brood Surveys as a means of indexing recruitment.

1.3(c) If the TWRA Summer Brood Survey data proves to be a useful index of annual productivity, expand participation in the survey to use citizen science to increase sampling effort and number of observations, utilizing a mobile application.

STRATEGY 1.4 DETERMINE THE OPTIMAL SPATIAL SCALE TO MANAGE WILD TURKEY POPULATION LEVELS IN TENNESSEE

1.4(a) Evaluate physiographic differences influencing turkey behavior, turkey density and hunter behavior across Tennessee.

1.4(b) Identify other covariates and constraints needed to define appropriate management units.

1.4(c) Delineate optimal management units for future management, research and monitoring purposes.

Objective 2

Develop hunting regulations and other management alternatives that are consistent with desired population levels and trends, address hunter and other stakeholder preferences, and consider existing knowledge of wild turkey population dynamics

STRATEGY 2.1 DETERMINE STAKEHOLDER PREFERENCES FOR POPULATION TRENDS AND HUNTER PREFERENCES REGARDING VARIOUS MANAGEMENT OPTIONS

2.1(a) Add appropriate supplemental questions to annual harvest surveys or conduct separate, detailed surveys of

hunter attitudes and opinions.

2.1(b) Use outreach and surveys of various groups, as needed, to gather information on stakeholder attitudes and opinions regarding perceptions of wild turkey populations and management.

STRATEGY 2.2 INVESTIGATE DEVELOPMENT OF AN ADAPTIVE MANAGEMENT SYSTEM FOR SETTING DECISION THRESHOLDS AND SELECTING BETWEEN MANAGEMENT ALTERNATIVES

A formal, transparent approach to decision-making combining analytical methods with information on values and preferences of stakeholders has potential to produce better supported and more effective management actions. Monitoring the effect of hunting regulations and other management actions on achieving desired objectives is a key component of an adaptive management system.

2.2(a) Identify all components needed for an adaptive management system and determine which elements are lacking and need improvement or development.

2.2(b) Determine the most important monitoring efforts necessary for estimating the effect of management actions on desired objectives.

2.2(c) Based on information gathered, evaluate TWRA's ability to implement an adaptive approach and initiate implementation steps if feasible.

STRATEGY 2.3 ESTIMATE SPATIAL AND TEMPORAL VARIATION IN NESTING PHENOLOGY AND ADJUST SEASON DATES OR OTHER HARVEST REGULATIONS ACCORDINGLY TO MITIGATE EFFECTS OF HUNTING SEASONS ON LONG-TERM POPULATION WELL-BEING

Due to concern for potential negative population level impacts from early and excessive harvest of mature gobblers, Isabelle et al. (2018) recommended conservatively timing hunting seasons to coincide with the peak of nest initiation. Alternative approaches may likewise serve to address such concerns, but information on nesting phenology is needed to inform such decisions.

2.3(a) Utilize the nesting phenology data from the 2016-2021 University of Tennessee turkey research project (Buehler et al. 2016) to evaluate accuracy of the phenology data acquired from the TWRA Summer Brood Survey.

2.3(b) If determined to be accurate, use the TWRA Summer Brood Survey data to produce a spatially explicit map of nesting phenology and, where needed, recommend regulation adjustments to align hunting season with peak nesting activity.

2.3(c) Evaluate the need to obtain additional nesting phenology data and, if needed, begin collecting such information.

STRATEGY 2.4 DEVELOP A DRAFT AGENCY POLICY ON FUTURE WILD TURKEY RESTORATION (I.E. RESTOCKING) EFFORTS

Extraordinary events such as massive flooding or disease outbreaks can lead to localized decline and even extirpation of wild turkey populations. Although wild turkeys generally are capable of recolonizing areas after such events occur, spatial, social or ecological barriers may limit their ability to repopulate in a timely fashion, if at all. In certain circumstances, targeted restoration action on the part of TWRA may be warranted to recover wild turkeys to an area previously occupied.

2.4(a) Identify criteria under which such action is necessary and/or preferable.

2.4(b) Define restoration procedures—including monitoring actions necessary to measure effectiveness of any wild turkey translocations made for restoration purposes—and identify success benchmarks and when hunting would occur.

STRATEGY 2.5 REVIEW AND AS NECESSARY PROPOSE REVISIONS TO AGENCY POLICIES AND SOPS FOR GUIDING, ASSISTING, EDUCATING AND PERMITTING FARMERS, LAND OWNERS AND OTHER STAKEHOLDERS EXPERIENCING UNDESIREABLE IMPACTS FROM WILD TURKEYS

With increasing human populations and urban expansion, conflicts between humans and wild turkeys are becoming more common. Likewise, as turkey populations expand, negative impacts to certain agricultural activities occur. Therefore, we will seek to identify appropriate solutions and provide consistent guidance and assistance in handling these management issues across the state.

2.5(a) Identify the various conflict scenarios currently existing.

2.5(b) Determine how well current policies and SOPs address each conflict scenario and recommend any needed improvements.

2.5(c) Work with appropriate stakeholder groups to identify management options that effectively address the variety of conflict scenarios routinely encountered. Alternative solutions should align with policy recommendations regarding restoration efforts formulated under the Population Goal, Objective 2, Strategy 4.

2.5(d) Develop educational material that assists the public with preventing or reducing negative impacts from wild turkeys and ensure individuals experiencing wild turkey conflicts receive this information.

Objective 3

Monitor wild turkey health through routine disease surveillance

STRATEGY 3.1 REVIEW AND, AS NECESSARY, PROPOSE UPDATES TO THE SOP FOR HANDLING REPORTS OF SICK WILD TURKEYS AND FOR DISEASE TESTING

3.1(a) Continue producing an annual report of disease cases submitted by TWRA to the Southeastern Cooperative Wildlife Disease Study (SCWDS) for testing.

3.1(b) Create an internal agency database to track reports of sick turkeys and ultimate diagnostic determinations for turkeys sampled for disease testing.

Habitat Goal

Establish and maintain or enhance wild turkey habitat on public and private land required to achieve turkey population goals

With current harvest data indicating a decline in wild turkey numbers in portions of the state, it is critical to promote management practices that produce optimal cover type conditions for wild turkeys. Establishing quality nesting and brood-rearing cover is particularly important because these areas support life history stages crucial for maintaining healthy populations. Increasing the amount of these cover types, characteristically found in early successional plant communities, is central to improving habitat for wild turkeys in Tennessee. Creating and maintaining young forest and early successional plant communities requires regular disturbance and often involves timber thinnings and small clear-cuts, light disking, prescribed burning, or herbicide application.

Private lands constitute approximately 90 percent of the landbase in Tennessee (National Geospatial Data Assets 2017, TWRA unpublished data). While TWRA strives to conserve and manage wild turkeys on our public lands, if we desire to maintain wild turkeys at sustainable levels throughout the state, then management practices providing habitat for them on private lands are essential. In other words, simply managing federal and state-owned lands is not enough to maintain viable populations across Tennessee. Therefore, TWRA is responsible for providing guidance on beneficial management, not only to public lands wildlife managers, but also to private landowners.

Objective 1

Increase or enhance wild turkey habitat on public lands

STRATEGY 1.1 INCREASE OR ENHANCE WILD TURKEY HABITAT ON TWRA-MANAGED LANDS

1.1(a) Create wild turkey habitat demonstration areas on select WMAs, monitor wildlife response to management actions and develop educational messaging about these areas to share with the public.

1.1(b) Engage with WMA managers to increase the amount of early successional plant communities, integrating the latest habitat management science.

1.1(c) Implement traditional silviculture as well as non-silvicultural forest management (such as the creation of glades, old fields/prairies, savannas and woodlands) to enhance habitat quality and quantity for wild turkeys in alignment with the TWRA Wildlife and Forestry Division strategic plan and agency strategic plan.

1.1(d) Work with NWTF and other partners to leverage funding or other resources for mutually beneficial habitat-based projects.

1.1(e) Work with TWRA's Federal Aid and Real Estate Division, Regional TWRA staff and partners to locate and acquire strategic properties for habitat connectivity.

STRATEGY 1.2 PROMOTE HABITAT MANAGEMENT BENEFICIAL TO WILD TURKEYS ON PUBLIC LANDS APART FROM TWRA-MANAGED LANDS

State and federal agencies own land having great potential for wild turkey populations across the state. These lands include state natural areas, parks and forests; national parks and forests; military lands and lands owned by the Tennessee Valley Authority (TVA).

1.2(a) Coordinate with other state, federal and NGO partners to encourage the use of management practices beneficial to wild turkeys on public lands.

1.2(b) Work with NWTF and other partners to leverage funding or other resources for mutually beneficial habitat-based projects.

1.2(c) Work with TWRA's Federal Aid and Real Estate Division, Regional TWRA staff and partners to locate and acquire strategic properties for habitat connectivity.

While TWRA strives to conserve and manage wild turkeys on our public lands, if we desire to maintain wild turkeys at sustainable levels throughout the state, then management practices providing habitat for them on private lands are essential.

Objective 2

Promote management practices that increase or enhance wild turkey habitat on private lands

STRATEGY 2.1 PROMOTE THE USE OF MANAGEMENT PRACTICES ON PRIVATE LANDS BENEFICIAL TO WILD TURKEYS

2.1(a) Share information on beneficial habitat management practices via publications,social media, field demonstration areas and landowner visits by TWRA's Private Land Habitat Biologists.

2.1(b) Promote federal Farm Bill and other funding programs available to private landowners enhancing wild turkey habitat.

2.1(c) Work with partners and NGOs to explore additional opportunities and funding to enhance conservation and habitat work on private lands.

(Alvin Freund, USFWS)

Communication Goal

Exchange information that increases understanding of and appreciation for the conservation and management of wild turkeys and leads to greater conservation action by agency staff, our stakeholders and the public at large

One purpose of the Communication Goal is to increase awareness of management objectives among internal and external stakeholders. As Tennessee's human population continues to increase it is imperative TWRA broaden information and education efforts across the state as it relates to wild turkey management. An informed and concerned public will more likely promote and support conservation efforts.

At the same time, TWRA needs to better understand our stakeholders and their concerns related to wild turkeys. Being receptive to and seeking input from stakeholders is paramount to bridging the communication gap. When people feel heard and understood, they are also more likely to be engaged and support conservation efforts.

The communication goal will support all aspects of the wild turkey strategic plan.

Objective 1

Increase engagement with internal and external stakeholders

STRATEGY 1.1 IMPROVE INTERNAL COMMUNICATIONS ON ISSUES RELATED TO WILD TURKEYS

1.1(a) Be more intentional in sharing information with agency staff about wild turkey management activities and provide staff more opportunities to have input on management.

1.1(b) Educate agency staff on wild turkey biology, ecology, habitat requirements, beneficial management practices and current management science.

1.1(c) Augment dialogue with the Tennessee Fish and Wildlife Commission about wild turkey management.

STRATEGY 1.2 IDENTIFY KEY STAKEHOLDERS WHO IMPACT OR ARE IMPACTED BY WILD TURKEY MANAGEMENT ISSUES

1.2(a) Develop a dynamic stakeholder list for comprehensive inclusion of all wild turkey interests in Tennessee. This list should include traditional sportsmen and conservation groups, universities, agency partners, as well as groups impacted by or who impact wild turkeys, such as commodity producers and the forestry industry.

STRATEGY 1.3 EXPAND STAKEHOLDER INTERACTION BEYOND TRADITIONAL GROUPS BY SEEKING OPPORTUNITIES FOR DIALOGUE WITH AND INVITING INPUT FROM DIVERSE STAKEHOLDER INTERESTS

1.3(a)Use outreach programs and other means to identify novel stakeholder groups and potential issues arising with management efforts.

1.3(b) Work together with all interested stakeholders to address management issues as they rise.

STRATEGY 1.4 USE A VARIETY OF MEANS TO INCREASE INTERACTION WITH THE VARIOUS STAKEHOLDER GROUPS

1.4(a) Take advantage of public forums and social media to receive input from and maintain dialogue with the interested public.

1.4(b) Study human dimensions related to wild turkeys to inform management decisions and conservation efforts.

TWRA needs to better understand our stakeholders and their concerns related to wild turkeys. Being receptive to and seeking input from stakeholders is paramount to bridging the communication gap.

Objective 2

Develop and share information to educate the public about wild turkey biology, ecology, habitat and harvest management, hunting and ongoing research activities

Specific educational topics could include, but are not limited to, the role and impacts of disease; feeding and associated aflatoxin risk; predator (wild and feral/domestic) inter-

actions; land management practices such as mowing, burning and silviculture; and habitat loss and land conservation.

STRATEGY 2.1 WORK COOPERATIVELY WITH TWRA'S OUTREACH AND COMMUNICATIONS DIVISION TO PRODUCE AND DELIVER HIGH-QUALITY, ENGAGING CONTENT EDUCATING PEOPLE ABOUT WILD TURKEYS AND CURRENT MANAGEMENT EFFORTS

2.1(a) Update TWRA's wild turkey related web pages with up-to-date, contemporary, high-quality content.

2.1(b) Utilize a variety of methods (including public forums, website, social media, radio, news and publications) to disseminate information.

2.1(c) Partner with willing stakeholder groups to share content and messaging through their outreach efforts.

Objective 3

Promote wild turkey hunting in Tennessee and provide hunters and other stakeholders up-to-date information on turkey biology and population dynamics

STRATEGY 3.1 CONTINUE SHARING INFORMATION ON ANNUAL HUNTING SEASONS AND PUBLIC HUNTING OPPORTUNITIES

3.1(a) Improve the online Hunter's Toolbox resource (https://hunterstoolbox.gooutdoorstennessee.com/) and promote its use as a source of real-time and historic harvest data.

3.1(b) Annually survey hunters regarding hunting satisfaction and track this over time.

3.1(c) Produce an annual wild turkey status report and make it available on TWRA's web page.

Sharing information on harvest, hunter success, annual productivity and recruitment with hunters and other stakeholders will help them better understand the status of wild turkeys statewide and in their part of the state.

Sharing information on harvest, hunter success, annual productivity and recruitment with hunters will help them better understand the status of wild turkeys statewide and in their part of the state.

Glossary

Adaptive Management – Consists of conducting management as experiments so that data can be collected and used to evaluate how the system responds to management actions, which can then be used to further refine management actions to produce desired results.

Carrying Capacity – The maximum number of individuals of a species that the environment can sustain, given the amount of food, cover, water and other resources available in the environment.

Citizen Science – The collecting of biological data by members of the general public, typically as part of a collaborative project with professional scientists.

Early Successional Plant Community – Refers to the early stages of plant succession beginning from bare soil and includes areas dominated by vigorously growing, shade-intolerant grasses and forbs. Such areas provide excellent food and cover for wildlife, but need disturbance to be maintained in this stage. Examples of early successional plant communities include weedy areas, powerline and gasline rights-of-way and old fields.

Hunter's Toolbox – A TWRA online application providing the public with real-time access to harvest data via various report generators. *(https://hunterstoolbox.gooutdoorstennessee.com/)*

Mobile Application – A type of software application designed to run on a mobile device, such as a smartphone or tablet computer; commonly referred to as an app.

Stakeholder – Any person or group significantly affected by or significantly affecting wildlife or wildlife management decisions and actions.

Standard Operating Procedure – A set of step-by-step instructions to help employees carry out complex routine operations with efficiency and uniformity of performance.

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