

Utah Wild Turkey Management Plan 2014

State of Utah
Department of Natural Resources
Division of Wildlife Resource

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Table of Contents:

- I. PURPOSE OF THE PLAN 4
 - A. General 4
 - B. Dates Covered 4
- II. SPECIES ASSESSMENT 4
 - A. Natural History..... 4
 - 1. Subspecies Description 5
 - a. Merriam's Turkey (*Meleagris gallopavo merriami*) 5
 - b. Rio Grande Turkey (*Meleagris gallopavo intermedia*) 5
 - c. Intermediate Subspecies 6
 - 2. Utah History 6
 - B. Management..... 6
 - 1. UDWR Regulatory Authority 6
 - 2. Past Management 7
 - a. General Management 7
 - 3. Current Management 7
 - a. Transplants and Introductions 7
 - b. Current Hunt Structure 8
 - c. Supplemental Feeding 8
 - C. Habitat 9
 - 1. Requirements..... 9
 - a. General 9
 - b. Nesting 9
 - c. Brood Rearing 9
 - d. Fall and Winter 10
 - 2. Historic Trends 10
 - 3. Current Status 10
 - 4. Future Projections..... 11
 - D. Population 11
 - 1. Limiting Factors 11
 - 2. Estimated Population 11

E. Use and Demand	11
1. Harvest	11
a. Spring Harvest	11
b. Fall Harvest.....	12
2. Wildlife Watching.....	12
F. Economics	12
1. Turkey related economic activity.....	12
2. Management Funding.....	13
III. ISSUES AND CONCERNS	14
High Priority: Urgent and Important.....	14
Med Priority: Less Urgent and Important.....	14
Low Priority: Not Urgent but Important	15
IV. CONCLUSIONS.....	15
V. MANAGEMENT GOALS, OBJECTIVES, AND STRATEGIES	16
Goal A. Maintain and improve wild turkey populations to habitat or social carrying capacity.....	16
Goal B. Minimize Human-Wild Turkey Conflicts	17
Goal C. Improve wild turkey hunting opportunities	18
Goal D. Enhance the appreciation of wild turkeys in Utah.....	19
Goal E. Enhance interagency cooperation.....	19
VI. Literature Cited.....	20
VII. Figures.....	21

I. PURPOSE OF THE PLAN

A. General

This document is Utah's management plan for the wild turkey. It presents management goals, objectives and strategies for the wild turkey in Utah. It identifies issues and concerns, and specifies strategies to overcome them. The plan provides direction for the Utah Division of Wildlife Resources (UDWR) work, year-to-year priorities and allocation of resources.

UDWR annual operations will improve populations, increase opportunity, enhance appreciation, and address problems related to wild turkey through strategies identified in this plan. Resources will be allocated to those projects that relate to the priority programs, problems and objectives. As many projects as possible will be addressed each year.

B. Dates Covered

This plan will be reviewed in six years from the date approved by the Utah Wildlife Board as indicated. If no major revisions are required at the end of the plan's duration, the plan duration may be extended for three years as needed, on approval of the Utah Wildlife Board.

II. SPECIES ASSESSMENT

A. Natural History

The wild turkey (*Meleagris gallopavo*) is the largest of Utah's game birds and is considered by many as a pinnacle species of upland game. Its appearance is very similar to the domestic dark or bronze turkey, but it has longer legs and a more slender, streamlined body. Tips of the tail feathers are white to light tan. Upper tail coverts may be tipped in white or tan. Breast feathers of the male are tipped with black while those of the female are tipped with white or buff (Dickson 1992).

Adult male turkeys are called toms or gobblers and adult female turkeys are called hens. One year old male turkeys are called jakes and one year old female turkeys are called jennies. Chicks up to 4 weeks of age are referred as poults, turkeys between 4 weeks of age and one year are juveniles.

Courtship activities begin in early spring, usually in March. Initiation of breeding behavior is regulated primarily by day length; but year to year variation in spring conditions can delay or advance breeding activities. The gobbling of the tom serves as a challenge to other males and attracts females to his territory. There are typically two peaks in courtship behavior, with the first peak in gobbling at the start of the breeding season, and the second a few weeks later after most hens have begun incubation. Turkeys are polygamous, a mature tom will mate with as many hens as he can attract. Toms do not take part in nesting or parental activities (Dickson 1992).

Turkeys are ground nesters, with the nest made up of a shallow depression formed by simple scratching and the hen's presence on the nest. Nests are typically located next to cover such as a tree, large rock or fallen log and within dense lateral cover for concealment. Hens lay an average of 10 to 11 eggs over the course of two weeks. Continuous incubation begins after the last egg is laid and lasts for an average of 28 days. Chicks hatch synchronously and are ready to leave the nest within 24 hours. In many studies greater than 90% of hens attempted to nest

each year. Adults are more likely to renest than juveniles, and the length of time spent incubating a failed nest influences the likelihood of renesting. Hens that spend more time on a nest that fails are less likely to renest (Dickson 1992).

After hatching poults quickly increase body mass and size. Their growth requires a protein rich diet consisting primarily of insects and forbs. In their first week of life a poult's diet is roughly 80% insects with the required proportion declining as they age. Poults require ample availability of insects, without which they will not survive. Poults are dependent upon the hen for protection, and roost on the ground for the first 2 weeks of life. After the second week of life chicks develop the ability to fly and begin roosting in trees (Dickson 1992).

Jakes seldom breed in their first year unless there is an absence of mature toms in the flock. A portion of the yearling hens will mate and nest their first year.

Most producing plants such as pine nuts and acorns are important food sources. A variety of grasses, weed seeds, and green, leafy vegetation are also eaten by turkeys. Sedges are important year-round food items where available. Large quantities of insects, particularly grasshoppers, are eaten during the summer.

1. Subspecies Description

a. Merriam's Turkey (*Meleagris gallopavo merriami*)

Males reach a length of 48 inches and females 36 inches. The average weight of an adult male averages 18 pounds and females average 10 1/2 pounds.

The Merriam's turkey is typically a mountain bird found in mature stands of ponderosa pine mixed with aspen, grassy meadows, and Gambel's oak grading into pinyon pine and juniper. Typical summer habitat consists of large stands of ponderosa pine beginning at about 7,000 feet in elevation up to the spruce/fir zone as high as 11,000 feet. Winter habitat consisting of ponderosa pine flats and individual ponderosa trees which extend down into the pinyon/juniper forests, is usually below 7,000 feet. Merriam's turkeys can travel up to 40 miles between summer and winter ranges.

Important turkey areas such as winter roosts, breeding territories and brooding areas are usually associated with mature ponderosa pine trees and wet meadows. Large pines are critical as roosting and escape cover from predators such as coyotes and eagles.

b. Rio Grande Turkey (*Meleagris gallopavo intermedia*)

The Rio Grande turkey is similar in size and appearance to the other subspecies of wild turkey. Adult males average 17 to 21 pounds. Adult females average 8 to 11 pounds. Rios can be distinguished from the other subspecies by the coloration of the tips of the tail feathers, coloration of the upper tail coverts (feathers of the lower back, covering the base of the tail feathers), and the barring in the primary wing feathers. In the Rio Grande turkey, these feather tips are buff or tan, in contrast with the white tips of the Merriam's subspecies.

The Rio Grande turkey (Rio) is found in cottonwood river bottoms often associated with Gambel's oak and green leafy plants. The Rio exhibits seasonal movements between winter roosting areas and nesting areas of up to 10 miles; Rio's seasonal movements are considerably shorter than Merriam's. The Rio Grande and the Merriam's turkey are similar in appearance;

however differences in habitat requirements are important for proper management and successful transplants.

c. Intermediate Subspecies

Since 2008, wild turkey in Utah have been managed at the species, rather than the subspecies level. Subspecies are still recognized for habitat and transplantation purposes; however, Merriam's and Rio Grande subspecies have interbred and adapted to local conditions. These intermediate subspecies are not easily categorized as Merriam's or Rio Grande due to overlapping morphological and behavioral characteristics. They are sometimes referred to as Merrios. They are found in a range of otherwise unoccupied habitat intermediate between the higher elevation Merriam's conifer habitats and lower elevation river bottom Rio habitats.

2. Utah History

Wild turkeys are not known to have existed in Utah during early European settlement. However, historical and archeological (pictographs, petroglyphs, turkey feather blankets, turkey bones) evidence clearly indicates that wild turkeys, probably the Merriam's subspecies, co-existed with Native Americans in Utah (Newbold et al. 2012).

Since the 1920s, three subspecies of wild turkey: eastern, Merriam's and Rio Grande, have been introduced into Utah with varying degrees of success. The earliest transplants were done by interested sportsmen and landowners with the help of the State Fish and Game Department. The first birds stocked were the eastern wild turkey obtained from farm-raised stock. These transplants were unsuccessful.

In the 1950s, what was then the Utah Department of Fish and Game stocked Merriam's wild turkeys obtained from Colorado and Arizona. These transplants established turkeys in Grand, Garfield, Kane, Iron and Washington counties. Subsequently, turkeys from these populations have been trapped and relocated within the state. Additional turkeys obtained from Arizona, Colorado and South Dakota have also been used to supplement and establish Utah turkey populations.

Rio Grande turkeys were obtained from Texas beginning in 1984 and were released near the Pine Valley Mountains in Washington County. These birds did not establish well initially. Additional transplants were planned for 1985, but Rio Grande turkeys being trapped in Texas were diagnosed with Mycoplasma (a well-known turkey disease). Transplanting was subsequently halted until 1989 when a solution to the disease problem was found.

Beginning in 1989, the UDWR began an aggressive wild turkey trapping and transplanting program using mostly Rio Grande turkeys and occasionally Merriam's turkeys from Arizona, Colorado, Kansas, Oklahoma, South Dakota, Texas and Wyoming.

B. Management

1. UDWR Regulatory Authority

The UDWR is charged by the Legislature to manage the state's wildlife resources. Its purpose is to assure the future of protected wildlife for its intrinsic, scientific, educational and recreational values. Protected wildlife species are determined by the Utah Legislature and by terms of the Federal Endangered Species Act of 1973.

The UDWR presently operates under authority granted it by the Utah Legislature in Title 23 of the Utah Code. The UDWR was created and established as the wildlife authority for the state under Section 23-14-1 of the Code. This section of the Code also vests the UDWR with its functions, powers, duties, rights, and responsibilities. The UDWR's duties are to protect, propagate, manage, conserve, and distribute protected wildlife throughout the state.

2. Past Management

a. General Management

Past management of the wild turkey in Utah has focused on identifying suitable release sites for the varied subspecies and releasing birds into those areas in an effort to establish self-sustaining populations. The UDWR released small numbers of turkeys sporadically from 1925 through 1982, typically less than 30 birds per year and often less than 10. In 1984, the UDWR increased transplant efforts moving over 200 turkeys that year. Turkey transplants remained relatively stable until the early 2000s when over 1,000 turkeys were transplanted each year. Since 2005, turkey transplant numbers have fluctuated around 500 turkeys each year.

The first spring turkey hunts took place in 1967. The season was closed for a year in 1970, then resumed in 1971 and continues to present. There was a fall hunt as early as 1963 that continued until 1972, stopped for two years and resumed from 1974 to 1984. Fall hunts resumed in 2013 on a limited basis to reduce nuisance populations.

From 2001 to 2006, the UDWR conducted various combinations of turkey brood and winter flock surveys. These population surveys were discontinued as they did not provide adequate data that could be used to manage the wild turkey.

As turkey populations have increased throughout Utah there has been more opportunity for turkeys to come into contact with residents and agricultural operations generating nuisance and depredations complaints. The majority of human-turkey conflicts were first reported in the southern part of the state where turkey populations initially grew large. Managers in the Southern and Southeast regions responded to complaints by moving and hazing turkeys away from problem areas. Subsequent population increases in the Northern and Central regions led to an increase in nuisance reports as turkeys began to heavily use a few populated areas during winter months. In 2013, House Bill 342 was passed directing the UDWR to respond to and begin mitigation of turkey caused material damage within 72 hours of notification, as well as directing the Wildlife Board to reestablish a fall hunt to reduce and disperse nuisance populations.

3. Current Management

a. Transplants and Introductions

Utah biologists have learned a great deal about wild turkey management since the first wild turkey release in 1925. Today, biologists are able to match Utah habitat with the appropriate subspecies of wild turkey. The UDWR has transplanted the Merriam's turkey into mountain habitat of southern Utah, and the Rio Grande turkey into bottomland habitats of the state. UDWR also aggressively pursues trapping and relocating wild turkey from existing Utah populations to supplement and establish new populations throughout the state. UDWR

supplements existing populations as necessary to maintain genetic diversity and to perpetuate populations.

UDWR works cooperatively with the U.S. Forest Service, U.S. Bureau of Land Management, National Wild Turkey Federation, Sportsmen for Fish and Wildlife, other wildlife agencies and sportsmen's organizations, county and city governments and private landowners in transplanting wild turkeys, protecting and enhancing turkey habitat, and promoting the unique aspects of turkey hunting and viewing opportunities.

The UDWR responds to nuisance and depredation complaints by trapping and transporting turkeys from problem areas to habitat lacking turkeys or to populations with low numbers in need of supplementation. Transplants from areas with limited public access to publically accessible lands are the highest priority.

b. Current Hunt Structure

As of 2013, there are two primary seasons in Utah, a limited entry season and a general season. In addition a relatively small number of tags are distributed during the fall in areas with high levels of nuisance and/or depredation complaints. Utah's limited entry season begins mid-April and extends roughly two weeks into late April. In 2013, 2,930 limited entry permits were distributed throughout Utah based on population levels in each region. Limited entry turkey permits offer a higher success rates and a limited number of hunters, and are valid only in the region specified on the permit. Fifteen percent of limited entry permits are reserved for hunters 15 years of age or younger, the youth limited entry season dates are the same as the limited entry season.

The general (over the counter) hunt takes place from late April to the end of May, with an unlimited number of turkey permits available. General season permits are valid statewide. A three day youth only general hunt takes place after the limited entry and immediately before the opening of the general season. There is also additional opportunity for hunters with disabilities. There were 6,588 general season permits purchased in 2013. Estimated total harvest for limited entry and general seasons was 2,295. Each hunter may purchase either one limited entry or one general season permit per year. Limited entry and general season tags allow for harvest of one bearded turkey. Permits do not specify subspecies of wild turkey to be taken.

There were an additional 42 conservation permits available for partner organization fundraising. Another 23 permits were available for Cooperative Wildlife Management Unit (CWMU) hunts in 2013. Wild turkey poaching reported reward permits are available in addition to limited entry permits. The number of poaching reported reward permits is capped at 5% of limited entry permits issued the previous year. Up to an additional 20% of the allocated limited entry permits are available for landowners; permits not allocated to landowners are added to the pool of limited entry permits and issued through the limited entry drawing.

In 2014, there will be spring limited entry, youth only, and general seasons, as well as a fall general season hunt. Each year hunt structure will be detailed in the Utah Division of Wildlife Resources' Upland Game and Turkey Guidebook to reflect current management needs.

c. Supplemental Feeding

Regular supplemental feeding is not part of the UDWR's routine management for turkey. It is important to manage populations under natural conditions and by natural foods. Ongoing winter

feeding is discouraged because it can allow populations to increase to levels above the carrying capacity of habitat, concentrates birds in areas surrounding feeding sites increasing risks of disease transmission, and can be prohibitively expensive. However, during periods of critical stress, feeding may be warranted to relieve stress during short-term emergencies.

C. Habitat

1. Requirements

a. General

Suitable habitat includes three key ingredients: trees, forbs and grass. Regardless of the type of environment, turkeys must have a combination of trees, forbs and grass. Trees provide food, daytime loafing and escape cover, and--most important--nighttime roost sites. Grasses and forbs provide food for adults and are especially important to poults as an environment in which they can efficiently forage for insects.

The annual home range of wild turkeys varies from 370 to 1,360 acres and contains a mixture of cover types.

b. Nesting

The characteristic most common to habitat immediately surrounding the nest of the wild turkey is lateral cover. Lateral cover obscures horizontal vision. Ideal nesting cover types are those with well-developed herbaceous or woody vegetation at 0 to 3 feet above the ground. Overhead cover at the nest site of from between 50 to 90 percent at a height of .5 to 3.4 yards seems preferred as well.

Sites that are mesic (having moderate soil moisture) seem to be preferred by wild turkey hens when establishing a nest. Whether the mesic site condition provides an important microclimate for the hen and eggs, or is simply correlated with greater development of lateral vegetation, is unclear.

Close proximity to adequate brood rearing cover is an important criterion in selection of the nest site by hen turkeys.

c. Brood Rearing

During the first 8 weeks after hatching, there are 3 essential components of brood rearing habitat. First, poults need an environment that produces abundant food, insects and food. Second, poults need habitat in which they can frequently and efficiently forage throughout the day. Third, poults need an area that provides enough cover to hide, but allows the adult hen unobstructed vision for protection from predators.

Weekly home ranges for wild turkey poults average less than 75 acres, and total summer home ranges are about 250 acres.

The key to brood rearing habitat is herbaceous vegetation interspersed with trees. Herbaceous vegetation is key because it provides an ideal foraging environment for poults. Insect abundance is usually greater in open fields than in forest habitats, particularly when the fields are not mowed or grazed.

The height of vegetation is another key feature. Herbaceous vegetation that is 12 to 28 inches in height allows adult hens to see predators at long distances while allowing the hen and poults to hide.

Turkey broods are seldom found far from trees. Trees may be important for two reasons. First, microclimate is critical to heat regulation in young poults. Cold and wet conditions are an important factor in poult death. Trees provide shelter from rain and shade from heat. Trees also provide escape cover for poults that can fly at the age of 10 to 12 days. The pattern for brood rearing habitat is that of a park-like environment. Complete ground cover of forbs and grasses with average heights of 20 inches, and 10 to 50 percent overhead or nearby tree cover is necessary.

d. Fall and Winter

Wild turkeys seek two key habitat ingredients in the fall and winter--food and roosting cover. Vegetation used by turkeys during the fall and winter is highly varied. Turkeys increase their use of forested cover during the fall and winter and decrease their use of open areas. Mast (pine nuts, acorns, berries) is the principal food during fall and winter. Habitat value increases with the proportion of mast-producing species in the forest and their degree of maturity.

In areas where snow cover of 6 inches or more persists for 2 to 16 weeks, the wild turkey may need additional habitat resources.

In mountainous environments, spring seeps are an important source of fall and winter food. Seeps provide invertebrates, mast and green vegetation. Because such water does not freeze, it provides a microclimate that allows foraging throughout the winter.

Optimal winter conditions are found on south-facing slopes with less than 20 percent gradient and where seeps are spread out, each covering more than 18 square yards.

Where agriculture is prominent, a mix of cropland and forest cover provides good turkey habitat. Turkeys make extensive use of grain crops where they are available. Corn, compared with acorns, is higher in protein, lower in fats, and similar in carbohydrates.

The second characteristic critical to winter habitat is roosting cover. The essential feature of roost cover is a horizontal spreading structure 30 to 100 feet above the ground. In areas where winter temperatures are frequently below freezing, winter roosts tend to be in locations where they are protected from prevailing winds. Roost trees on northeast-facing slopes and that allow turkeys to roost above cold-air drainages are important in regions of cold winter weather.

2. Historic Trends

No detailed habitat inventories have been conducted to assess historic trends in turkey habitat throughout Utah. However, harvest statistics providing an index of population levels are available in Utah's Upland Game Annual Reports available on the UDWR website at: <http://wildlife.utah.gov/uplandgame/annualreports>. Utah's harvest statistics provide information on overall harvest, effort, hunters afield, hunter success, satisfaction, and perceived crowding to inform management decisions.

3. Current Status

Currently in Utah, there are 127 million acres of occupied wild turkey habitat (Figure 1). The 2014 occupied habitat map was developed by UDWR biologists based on observed wild turkeys, with input from various sources including state and federal biologists, private landowners, hunters, and others.

4. Future Projections

Aggressive logging of ponderosa pine forests in southern Utah and continued loss of riparian habitats throughout Utah could potentially impact turkey habitat. However, funding for wild turkey projects to maintain and enhance habitat is available.

D. Population

1. Limiting Factors

Annual weather conditions have the greatest impact on Utah's wild turkey populations. Periods of sustained cold temperatures and substantial snow depths can lead to starvation by increasing caloric demand while reducing food availability. Persistent, cold, wet spring weather decrease poult survival and recruitment into the population. Diseases can also impact wild turkey populations, but there has never been a documented population level disease problem in Utah's wild turkey. Predators in localized areas could potentially affect population size, but impacts of predators on wild turkey have not been studied in Utah.

2. Estimated Population

Currently UDWR does not conduct population inventories of wild turkeys, but does receive data that can be used to assess population levels from annual harvest surveys, along with biologist observations from the field, and landowner and sportsmen inputs. Formal population surveys in the form of late summer brood counts and winter flock counts were attempted from 2001 to 2006, but did not prove to be cost effective or improve the quality of management. Based on the assumption that 10% of Utah's wild turkey population is harvested each spring, the current Utah population is roughly estimated at 18,000 - 25,000 wild turkeys statewide. Populations have done very well in many regions of the state and will likely continue producing excess individuals that can be transplanted throughout the state to increase population distribution and numbers. Nuisance and depredation will be mitigated through a combination of transplants, hunts, winter habitat improvement, and outreach efforts.

E. Use and Demand

1. Harvest

a. Spring Harvest

The vast majority of Utah turkey harvest takes place in the spring during April and May, exact season dates are available in the current year's upland game and turkey guidebook. An annual harvest survey is used to assess hunter success, satisfaction, and perceived crowding. The UDWR aims to keep hunter success above 20%, hunter satisfaction above a subjective rating of 2 out of 5, and perceived crowding below a subjective rating of 4 out of 5. Permit numbers are adjusted to meet these guidelines. Each year UDWR compiles an Upland Game Annual Report that includes information on wild turkey hunting, harvest, and yearly regulations. These annual

reports can be found on the UDWR website at:
<http://wildlife.utah.gov/uplandgame/annualreports>.

See table 1 for a summary of recent hunter numbers. See section II.F.1 (Economics) of this management plan for detail on demand and utilization.

Table 1. Total Utah wild turkey permit sales and applications 2008 to 2013.

^a Unlimited over the counter permits were available starting 2010

* permits to landowners

	2008	2009	2010 ^a	2011	2012	2013
Limited Entry Permits	7664	10600	2923	3007	3002	3019
LE Applications	20060	20371	12938	9682	8924	9033
General Season Permits	131*	3011*	10192	6557	5315	6640
Conservation Permits	113	136	66	65	61	38
Landowner Permits	4	200	60	39	32	36
Total Permits	7912	13947	13241	9668	8410	9733

b. Fall Harvest

A fall hunting season was offered for the Merriam's subspecies from 1964-1985. No fall hunting season occurred in Utah from 1985-2012. In 2013, a limited fall depredation hunt was offered in the Northern Region to help alleviate wild turkey nuisance situations in Box Elder and Cache counties; 43 wild turkeys were harvested.

2. Wildlife Watching

The wild turkey's limited, but broad distribution throughout Utah provides occasion for wildlife enthusiasts to view, study, and photograph this distinctive bird. No data has been collected to assess interest in wild turkey viewing.

F. Economics

1. Turkey Related Economic Activity

A 2003 study prepared by Southwick Associates for the National Wild Turkey Federation found that over 2.2 million U.S. hunters spent \$1.8 billion on turkey hunting related expenses during the 2003 season. On average each hunter spent \$784 on expenses relating to turkey harvest including \$207 for travel-related goods, \$80 for vehicles, \$76 for firearms, and donated \$105 for habitat improvement through conservation organizations or other channels.

In 2011, Utah had 193,000 hunters spending an estimated \$499 million on hunting related expenses averaging \$2,334 per hunter. Out of the total hunters in Utah, 63,000 hunted small game, spending an average of \$557 specifically on small game hunting on an annual basis. Average expenditures for wildlife viewing in Utah averaged \$727 per person, with 410,000 people participating annually for a total of \$585 million in expenditures (US Dept. of Interior 2011). A 2006 survey, *Wild Turkey Hunting in Utah*, produced by Utah State University reported 19% of turkey hunters spent under \$100, 36% spent between \$100 and \$299, 21% spent

between \$300 and \$499, and 17% spent between \$500 and \$999 on wild turkey hunting in 2005.

Utah turkey permit sales peaked in 2009, with 13,947 permits issued. Demand outstripped supply with 20,371 applications for the 10,600 limited entry permits issued in 2009. In 2010, unlimited over the counter permit sales were implemented, and permit numbers were relatively stable compared to 2009, with 13,241 permits sold. Since 2010 there have been a decreased but relatively stable number of permits sold with 9,668, 8,410, and 9,733 permits sold in 2011, 2012 and 2013 respectively.

Since the introduction of over the counter permit sales in 2010, applications for limited entry units have decreased by more than half, from 20,371 applications for the 2009 limited entry season to 9,033 applications for the 2013 limited entry season. However, demand for limited entry permits still is greater than available opportunity. In 2013, there were 9,033 applications for 3,019 permits (see Table 1 for more detail on demand relative to opportunity). Revenue from application and permit sales peaked at \$712,070 in 2009 then declined and stabilized at approximately \$430,000 from 2011-2013.

2. Management Funding

Funding for wild turkey habitat projects is available from a number of sources. The Federal Aid in Wildlife Restoration Act (Pittman-Robertson Act) of 1937 generates funds from excise taxes on firearms, ammunition and archery equipment. These funds are available to use with state matching funds. Federal Pittman-Robertson funds may provide funding for turkey management and habitat projects.

The Wildlife Habitat Account is a restricted account within the Utah General Fund directed by Utah Code 23-19-43. The habitat account is funded by the sale of licenses, permits, stamps, and certificates of registration. Each year up to \$230,000 or 12% (whichever is greater) of the Wildlife Habitat Account is allocated to upland game projects for habitat acquisition and improvement, predator control, increasing public access to private land and other upland game related purposes. Habitat funds are made available through the director of the Division of Wildlife. The Habitat Council reviews and recommends proposed projects to the director, and the projects are tracked through the Utah's Watershed Restoration Initiative administrative framework.

Funding for acquiring pen-raised birds for transplanting and releasing in Utah is provided by Utah Code 23-19-24. The code dictates that up to 50 cents of each hunting license fee may be directed to the upland game program to acquire pen raised birds and to capture and transplant upland game species. These funds are separate and distinct from the funds in the Wildlife Habitat Account.

In addition, wild turkey conservation permits, obtained and sold by 501(c)(3) conservation organizations, generate funds that can be used on turkey management and habitat projects.

III. ISSUES AND CONCERNS

High Priority: Urgent and Important

Issue H1. Human-wild turkey conflicts in urban and agricultural settings.

Concern A. High number of complaints of turkey nuisance and depredation in urban and agricultural settings.

Concern B. Lack of formal guidance with prioritized options and identified resources.

Issue H2. Insufficient Winter Habitat

Concern A. Starvation during severe weather.

Concern B. Winter overutilization of urban and agricultural areas (see Issue H1).

Issue H3. Lack of response to sudden population declines/crashes.

Concern A. Population declines will lead to extirpation of populations without intervention.

Concern B. Intervention will not be effective without a population crash response plan prepared in advance of adverse events to guide division actions and identify needed resources.

Issue H4. Lack of interagency management cooperation.

Concern A. Emergency feeding will be limited to state and private lands.

Concern B. Population expansion efforts will be less effective on federal lands without interagency cooperation.

Concern C. Access to hunting areas on public lands will be limited (e.g. road access).

Issue H5. Lack of sufficient funding to implement strategies identified in this plan.

Concern A. Nuisance and depredation will receive disproportionate resources.

Issue H6. Insufficient UDWR Wild Turkey Management Plan flexibility.

Concern A. New methods of mitigating human-wild turkey conflicts will not be developed and used without sufficient plan flexibility.

Concern B. UDWR staff will not be able to implement management practices based on the best available science.

Medium Priority: Less Urgent and Important

Issue M1. Insufficient access to hunting and viewing opportunities.

Concern A. Lack of opportunity limits interest, hunter recruitment, and hunter retention.

Issue M2. Insufficient outreach and education.

Concern A. Lack of knowledge on where and how to hunt can limit recruitment and retention.

Concern B. Lack of value given to wild turkey by the public.

Concern C. Increased nuisance and depredation complaints resulting from lack of knowledge of factors leading to undesirable concentrations of wild turkey and methods to mitigate nuisance.

Concern D. Lack of knowledge of potential benefits of wild turkey to agriculture.

Issue M3. Lack of western population research.

Concern A: Lack of regional information on wild turkey ecology may be impeding the best possible management.

Issue M4. Low quality and quantity of breeding and summer habitat.

Concern A. Population growth will be limited.

Concern B. Hunting and viewing opportunity will be limited.

Low Priority: Not Urgent but Important

Issue L1. Disease transmission from within and from outside Utah, including to and from commercial turkeys. (Note: Disease is a low priority because there is no Utah record of disease transmission between wild and commercial turkeys.)

Concern A. Economic impacts to commercial turkey producers.

Concern B. Disease related decline of wild turkey populations.

Issue L2. Excessive corvid (crow, raven, magpie) predation.

Concern A. Limited population growth, or population decline.

Issue L3. Lack of population monitoring to detect and respond to population declines.

Concern A. Local populations will decline or be extirpated before the population crash response plan can be implemented.

IV. CONCLUSIONS

Archeological evidence indicates that the wild turkey is native to Utah. Two distinct subspecies of wild turkey are found in Utah—Merriam's and Rio Grande, with intermediate subspecies filling ecological niches between distinct subspecies. Throughout Utah there is still habitat capable of supporting wild turkey that is currently unoccupied.

Wild turkey range has been successfully expanded in Utah. Subsequently, available hunting permits have risen substantially from 1,016 in 2000, when the last management plan was published, to 9,656 in 2013. There are a limited number of locally overabundant populations resulting in nuisance and limited depredation issues.

Turkey hunting is fast becoming one of the top hunting sports in the United States. This is the result of the efforts of states to establish new wild turkey populations and increase existing ones. The interest is similar in Utah. The vast majority of Utah wild turkey hunting takes place during the spring season to minimize harvest of hens and poults and allow wild turkey populations to expand.

Throughout Utah there is still opportunity for populations to be expanded both in numbers and distribution to provided additional hunting and viewing opportunity.

Ponderosa pine habitats are most important for the Merriam's subspecies while cottonwood riparian habitats are most important for Rio Grande subspecies of wild turkeys.

V. MANAGEMENT GOALS, OBJECTIVES, AND STRATEGIES

Goal A. Maintain and Improve Wild Turkey Populations to Habitat or Social Carrying Capacity

Objective 1. Stabilize populations that are declining outside of natural population fluctuations; especially through catastrophic events (i.e. following fires, severe winters, etc.).

Strategy a: Develop a Population Crash Response Plan.

Strategy b: Supplement declining populations with additional wild turkeys when adequate habitat is available.

Strategy c: Conduct habitat projects to address limiting factors.

Strategy d: Develop a wild turkey feeding policy for UDWR.

- i. Include formalized feeding agreements with National Wild Turkey Federation, Sportsmen for Fish and Wildlife, and/or other groups.

Strategy e: Identify and secure funding sources.

Strategy f: Control predator populations in targeted areas when warranted.

Objective 2. Increase wild turkey habitat, quality and quantity, by 40,000 acres statewide by 2020.

Strategy a: Map priority treatment areas.

Strategy b: Identify population limiting habitats (e.g. winter habitat).

Strategy c: Identify and secure funding sources.

Strategy d: Conduct habitat improvement projects in limiting habitat(s).

- i. Increase outreach to Non-government Organizations (NGO) and regional biologists to increase comments on, and quality of proposed WRI projects.

Objective 3. Establish wild turkey populations at 80 new sites by 2020.

Strategy a: Develop translocation guidelines.

- i. Prioritize transplants within Utah over interstate transplants.
- ii. Focus interstate transplants into Utah on Merriam's subspecies, with secondary focus on Rio Grande subspecies.

Strategy b: Translocate birds from areas where populations are in excess of social or biological carrying capacity following the Wildlife Board approved wild turkey transplant list.

Strategy c: Identify and secure funding sources.

Goal B. Minimize Human-Wild Turkey Conflicts

Objective 1. Decrease the number of chronic material damage complaints per 100 turkeys by 25% by 2020.

Strategy a: Develop a baseline of complaint numbers based on complaints per region per 100 estimated wild turkeys (population estimated assuming a 10% harvest).

Strategy b: Improve outreach and education.

Strategy c: Increase involvement and personal contact between landowners and NGOs to reach mutually beneficial conservation solutions.

Strategy d: Develop UDWR wild turkey management manual.

i. Respond to complaints as required by law.

ii. Develop guidelines and framework for dealing with wild turkeys causing material damage.

Strategy e: Work to enact local wild turkey feeding ordinances in chronic complaint areas where appropriate.

Strategy f: Improve habitat to draw wild turkey populations away from conflict areas.

Strategy g: Increase walk-in-access in complaint areas.

Strategy h: Translocate complaint wild turkeys as per the approved transplant list.

Strategy i: Conduct a targeted fall wild turkey hunting season.

Strategy j: Identify and secure funding sources.

Strategy k: Formalized assistance agreements with National Wild Turkey Federation and/or Sportsmen for Fish and Wildlife and others.

Objective 2. Decrease the number of chronic nuisance complaints per 100 turkeys by 25% by 2020.

Strategy a: Develop a baseline of complaint numbers based on complaints per region per 100 estimated wild turkeys (based on 10% harvest population estimate).

Strategy b: Improve outreach and education.

Strategy c: Develop a UDWR wild turkey management manual.

Strategy d: Work to enact local wild turkey feeding ordinances in chronic complaint areas where appropriate.

Strategy e: Improve habitat to draw wild turkey populations away from conflict areas.

Strategy f: Translocate complaint turkeys as per the approved transplant list.

Strategy g: Conduct a targeted fall wild turkey hunting season.

Strategy h: Identify and secure funding sources.

Goal C. Improve Wild Turkey Hunting Opportunities

Objective 1: Increase accessible hunting areas within a one hour drive of the Wasatch Front (Nephi to Brigham City) by 10,000 acres by 2020.

Strategy a: Identify areas with wild turkey habitat that are not currently accessible for public hunting.

Strategy b: Identify and secure funding sources.

Strategy c: Secure public access (Walk-in Access, easements, etc.) through agreements with landowners or management agencies.

i. Examine increases in Walk-in Access payments for key areas.

Objective 2: Increase the number of permits sold to > 11,680 (20% increase from 2013) by 2020.

Strategy a: Provide optimized season timing and length.

Strategy b: Increase outreach efforts (news releases, etc.) to increase interest in hunting.

Strategy c: Educate hunters (manage expectations, how to hunt effectively, etc.).

i. Develop an online turkey hunting school/program.

ii. Develop regional hunt forecast.

iii. Work with conservation groups, and others to develop and provide wild turkey seminars and workshops.

Strategy d: Increase turkey distribution and numbers throughout the state (see Goal A).

Strategy e: Evaluate permit pricing.

Strategy f: Implement a system for regional permit allocation for the LE and fall seasons.

Strategy g: Provide youth opportunity.

Strategy h: Promote conservation group events (JAKES, WITO, etc.).

Goal D. Enhance the Appreciation of Wild Turkeys in Utah

Objective 1: Increase targeted distribution of educational materials & presentations on the benefits of wild turkeys.

Strategy a: Develop or otherwise make available presentations to offer to agricultural communities and other groups on the benefits of wild turkeys.

Objective 2: Increase the number of participants at wild turkey events by 10% by 2020.

Strategy a: Develop a baseline of events and participant numbers.

Strategy b: Increase support and partnerships with conservation organizations and help promote events (i.e. NWTF JAKES).

Strategy c: Increase availability of turkey educational resources from UDWR and conservation organizations, and improve ease of use of the UDWR wild turkey web pages.

Strategy d: Establish more viewing events and educational opportunities (around Thanksgiving, transplants involving schools, local governments, spring strut, etc.).

i. Involve Future Farmers of America (FFA), Scouts, 4H and other youth groups.

ii. Involve local government leaders.

Goal E. Enhance Interagency Cooperation

Objective 1. Increase the number of interagency meetings to five per year.

Strategy a. Organize one annual interagency meeting within each UDWR region.

Strategy b. Coordinate between UDWR regional and Salt Lake Office staff prior to interagency meetings.

Strategy c: Complete MOU with federal agencies and NGOs at the state level and update as needed.

Strategy d: Complete joint press releases, educational information about wild turkeys, and wild turkey events.

Strategy e: Work cooperatively to provide access to federal lands (e.g. open gates, easements, roads, etc.).

VI. Literature Cited

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VII. Figures

Figure 1. Occupied Wild Turkey Habitat Map, Utah 2014. Shaded area (blue) represents occupied turkey habitat.

