

## DECISION

### ENVIRONMENTAL ASSESSMENT: PREDATOR DAMAGE MANAGEMENT IN THE CANYON DISTRICT OF TEXAS

#### PURPOSE

The United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Wildlife Services (WS) program, in cooperation with the Texas A&M University System, through the Texas A&M AgriLife Extension Service, prepared an environmental assessment (EA) to evaluate alternative approaches to managing damage caused by predators in the Canyon District<sup>1</sup> of Texas (USDA 2013). The WS program, the Texas A&M AgriLife Extension Service, and the Texas Wildlife Damage Management Association have signed a Memorandum of Understanding (MOU) to conduct a cooperative program to alleviate damage caused by predators. The EA and this Decision will refer to the cooperative program created by the MOU as the Texas Wildlife Services Program (TWSP).

As described in the EA, the term “predators” refers to Virginia opossum (*Didelphis virginianus*), coyotes (*Canis latrans*), feral/free roaming dogs (*Canis familiaris*), mountain lions (*Felis concolor*), striped skunks (*Mephitis mephitis*), hooded skunks (*Mephitis macroura*), hog-nosed skunks (*Conepatus leuconotus*), western spotted skunks (*Spilogale gracilis*), eastern spotted skunks (*Spilogale putorius*), feral/free roaming cats (*Felis domesticus*), gray fox (*Urocyon cinereoargenteus*), red fox (*Vulpes vulpes*), bobcats (*Lynx rufus*), and raccoons (*Procyon lotor*).

The EA documents the need for damage management in the Canyon District and assesses potential impacts to the human environment of five alternatives to address that need. The TWSP prepared the EA to determine if the alternatives could have a significant impact on the quality of the human environment. Specifically, the TWSP prepared the EA to: 1) facilitate planning, 2) facilitate interagency coordination, 3) streamline program management, 4) evaluate the potential environmental consequences of the alternatives related to the issues associated with managing damage caused by predators, and 5) clearly communicate to the public the analysis of individual and cumulative impacts.

#### NEED FOR ACTION

The need for action arises from requests for assistance received by the TWSP to reduce and prevent damage occurring to agricultural resources, natural resources, property, and threats to human safety associated with predators. The TWSP would only conduct damage management activities after receiving a request for assistance. Before initiating activities, the TWSP and the entity requesting assistance would sign a MOU, work initiation document, or another comparable document, which would list all the methods the property owner or manager would allow the TWSP to use on property they own and/or manage. As part of disease surveillance and monitoring programs, the TWSP could also participate in disease sampling.

#### SCOPE OF ANALYSES IN THE EA

The EA evaluates the need for action to manage damage associated with predators in the Canyon District, the potential issues associated with managing damage caused by predators, and the environmental consequences of conducting different alternatives to meet the need for action while addressing the

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<sup>1</sup>To provide efficient program support and assistance, the TWSP has divided Texas into districts for the purposes of implementing a program to manage predatory animals. The Canyon District includes 68 counties in the panhandle of Texas, which covers approximately 41.4 million acres (see Figure 1 in the EA).

identified issues. The EA evaluates meeting the need for action under five alternatives. Appendix B of the EA provides a discussion of the methods available for use or recommendation under each of the alternatives. The actions evaluated were the use of those methods available under the alternatives and the employment of those methods by the TWSP to manage or prevent damage associated with predators in the Canyon District of Texas. The standard WS Decision Model (Slate et al. 1992) would be the site-specific procedure for individual actions conducted by the TWSP (see WS Directive 2.201).

Initially, the TWSP developed the issues related to managing damage associated with predators in consultation with the Texas Department of Agriculture and the Texas Parks and Wildlife Department (TPWD). Through the scoping process, the TWSP defined the issues and identified the preliminary alternatives. As part of the scoping process, the TWSP made the EA available to the public for review and comment by a legal notice published daily in the *Amarillo-Globe News* and the *Austin American Statesman* newspapers on January 6, 2014. The TWSP program also published a notice of availability on the APHIS website beginning on January 2, 2014 announcing the EA was available for public review and comment. The TWSP also sent a notice of availability directly to agencies, organizations, and individuals with probable interest in predator damage management in the Canyon District and/or the State. The public involvement process ended on February 6, 2014. The TWSP received 2,898 comment letters during the public comment period. Of those letters received, 2,856 were form letters that presented the exact same language or contained slight variations of the form letter. Appendix A of this Decision summarizes the comments and provides responses.

## **RELATIONSHIP OF THE EA TO OTHER ENVIRONMENTAL DOCUMENTS**

The TWSP has previously developed nine district EAs that analyzed the need for action to manage damage associated with predators. Since the EA re-evaluated activities conducted under the previous EA for the Canyon District to address the new need for action associated with predators and the associated affected environment, the analysis in the EA and the outcome of this Decision will supersede the previous EA.

The WS program has also developed an EA that analyzed the environmental effects of WS' involvement in the funding of and participation in oral rabies vaccination programs to eliminate or stop the spread of raccoon rabies in a number of eastern states and gray fox and coyote rabies in Texas (USDA 2009). The WS program determined the action would not have a significant effect on the quality of the human environment.

## **AUTHORITY AND COMPLIANCE**

The WS program is authorized by law to reduce damage caused by animals through the Act of March 2, 1931 (46 Stat. 1468; 7 USC 426-426b), as amended and the Act of December 22, 1987 (101 Stat. 1329-331, 7 USC 426c). Title 10, Chapter 825, Subchapter A, Section 825.001 of the Texas Health and Safety Code requires The Texas A&M University System to cooperate with the WS program in controlling coyotes, mountain lions, bobcats, feral swine, and other predatory animals to protect livestock, food and feed supplies, crops, and ranges.

Management of most native wildlife in the State, including the Canyon District, is the responsibility of the TPWD. The authority of the TPWD does include the management of some predators, including skunks, raccoons, opossum, red fox, and gray fox. However, the TPWD regulatory authority does not extend to coyotes, bobcats, mountain lion, feral dogs, and feral cats. Under Title 5, Subtitle A, Chapter 43, Section 43.1075 of the Texas Parks and Wildlife Code, the TPWD also has the authority to permit a landowner or their agent to use a firearm from a helicopter to remove predators. While the TWSP collaborates with the TPWD in the management of depredated wildlife, the TWSP has independent

authority to conduct predatory animal management (Attorney General Opinion JM-683). The TWSP maintains a policy of conducting activities consistent with any management directions or plans that the TPWD has established on behalf of the State as applicable to the authorities of the TWSP.

The Texas A&M AgriLife Extension Service is an agency within The Texas A&M University System. The Texas Legislature has authorized the State of Texas to cooperate through The Texas A&M University System with the appropriate federal officers and agencies to control predatory animals and rodent pests (Texas Health and Safety Code, Title 10, Ch. 825). The Texas Wildlife Damage Management Association consists of local cooperative groups, including county governments, private associations, and/or individuals that contribute and provide funding to the TWSP to address predators.

In addition, landowners or their agents may address predators causing damage on property they own when those animals are causing damage. Title 5, Subtitle C, Chapter 71, Section 71.004(a) of the Texas Parks and Wildlife Code allows a landowner or their agent to lethally remove fur-bearing animals causing depredation on the landowner's property without a need for a permit or license.

The EA and this Decision ensures the actions of the WS program comply with the NEPA, with the Council on Environmental Quality guidelines (40 CFR 1500), and with the APHIS' NEPA implementing regulations (7 CFR 372). The TWSP would conduct all damage management activities, including disposal requirements, consistent with applicable laws, regulations, and policies, in accordance with WS Directive 2.210.

## **DECISIONS TO BE MADE**

Based on the scope of the EA, the decisions for the TWSP to make are:

- Should the TWSP continue to conduct damage management to alleviate predator damage in the Canyon District
- Should the TWSP conduct disease surveillance and monitoring in predator populations
- Should the TWSP continue to implement an integrated methods strategy
- If not, should the TWSP attempt to implement one of the alternatives
- Would continuing the proposed action alternative or the other alternatives result in significant effects to the environment requiring the preparation of an Environmental Impact Statement

## **AFFECTED ENVIRONMENT**

The Canyon District includes 68 counties in the panhandle of Texas (see Figure 1 in the EA). The District covers approximately 41.4 million acres (about 24.1% of the State), consisting primarily of the High Plains and Rolling Plains ecological regions of Texas, and includes a small portion of the Edwards Plateau and Trans Pecos. Those predators addressed in the EA are capable of utilizing a variety of habitats in the Canyon District. Most species of predators addressed in this EA occur throughout the year across the State, including the Canyon District, where suitable habitat exists for foraging and shelter. Damage or threats of damage caused by those species could occur throughout the Canyon District wherever those predators occur.

However, the TWSP would only provide assistance when requested by a landowner or manager and only on properties where the TWSP and the cooperating entity signed a MOU, work initiation document, work plan, or another comparable document. Upon receiving a request for assistance, the TWSP could conduct activities to reduce predator damage or threats on federal, state, tribal, municipal, and private properties in the Canyon District. Areas where damage or threats of damage could occur include, but would not be

limited to agricultural fields, vineyards, orchards, farmyards, dairies, ranches, livestock operations, aquaculture facilities, fish hatcheries, grain mills, grain handling areas, railroad yards, waste handling facilities, industrial sites, natural resource areas, park lands, and historic sites; state and interstate highways and roads; railroads and their right-of-ways; property in or adjacent to subdivisions, businesses, and industrial parks; timberlands, croplands, and pastures; private and public property where burrowing predators cause damage to structures, dikes, ditches, ponds, and levees; public and private properties in rural/urban/suburban areas where predators cause damage to landscaping and natural resources, property, and are a threat to human safety through the spread of disease. The area would also include airports and military airbases where predators were a threat to human safety and to property; areas where predators were negatively affecting wildlife, including T&E species; and public property where predators were negatively affecting historic structures, cultural landscapes, and natural resources.

## **ISSUES ASSOCIATED WITH PREDATOR DAMAGE MANAGEMENT ACTIVITIES**

The TWSP defined the issues related to managing damage associated with predators in the Canyon District and identified preliminary alternatives. The TWSP also made the EA available to the public for review and comment through notices published in local media and through direct notification of potentially interested parties.

Chapter 2 of the EA describes in detail the issues considered and evaluated in the EA. The TWSP identified the following issues as important to the scope of the analysis (40 CFR 1508.25) with each alternative evaluated in the EA relative to the impacts on those major issues:

- Issue 1 - Effects of Damage Management Activities on Target Predator Populations
- Issue 2 - Effects on Non-target Species Populations, Including T&E Species
- Issue 3 - Effects of Damage Management Methods on Human Health and Safety
- Issue 4 - Effects of Damage Management Activities on Recreational Activities
- Issue 5 - Humaneness and Animal Welfare Concerns of Methods

## **ISSUES CONSIDERED BUT NOT ANALYZED IN DETAIL WITH RATIONALE**

In addition to those issues analyzed in detail, the TWSP identified several issues during the development of the EA but the TWSP did not consider those issues in detail. Section 2.3 of the EA discusses the rationale for the decision not to analyze those issues in detail.

## **DESCRIPTION OF THE ALTERNATIVES**

The TWSP developed the following five alternatives to respond to the issues identified in Chapter 2 of the EA. Chapter 4 of the EA provides a detailed discussion of the effects of the alternatives on the issues. Below is a summary of the alternatives.

### **Alternative 1 - Continue the Current Adaptive Integrated Predator Damage Management Program (No Action)**

The WS program would continue involvement in the TWSP under the no action alternative. This alternative would allow the WS program to continue to provide direct operational assistance and technical assistance as part of the TWSP. Assistance would involve recommending and/or employing an integrated damage management approach using available methods, as appropriate, to reduce damage associated with predators in the Canyon District. Under this alternative, the WS program, as part of the TWSP, would recommend or implement an adaptive integrated methods strategy that would encompass the use of

practical and effective methods of preventing or reducing damage while minimizing harmful effects of damage management measures on people, other species, and the environment. The TWSP would give preference to non-lethal methods when formulating each damage management strategy, and would recommend or implement non-lethal methods when practical and effective before recommending or implementing lethal methods. However, the TWSP would not implement non-lethal methods as a first response to every damage problem. The most appropriate response could often be a combination of non-lethal and lethal methods, or there could be instances where application of lethal methods alone would be the most appropriate strategy. Technical assistance provided under this alternative would be similar to technical assistance provided under Alternative 4.

All of the methods addressed in Appendix B of the EA would be available to the TWSP for use to resolve requests for assistance to manage damage associated with predators in the Canyon District. Using the WS Decision model discussed in the EA, the TWSP could employ methods singularly or in combination in an integrated approach to alleviate damage caused by predators.

### **Alternative 2 - Continue the Current Damage Management Program across Multiple Resource Types (Proposed Action)**

The proposed action alternative would continue the current program of implementing methods in an adaptive integrated approach to alleviate damage or threats of damage associated with predators as described under Alternative 1. In addition, the TWSP could respond to requests for assistance from the TPWD, the USFWS, and/or other entities to enhance survival of native wildlife populations in areas where the TWSP has been requested to alleviate damage to other resources, when requested by the appropriate entity and when approved by the property owner

### **Alternative 3 - No Involvement by WS with the TWSP**

Under the no involvement alternative, the federal WS program would have no involvement with any aspect of managing damage caused by predators in the Canyon District and would no longer be involved with the TWSP. The WS program would refer all requests for assistance to the Texas A&M AgriLife Extension Service, the Texas Wildlife Damage Management Association, the TPWD, and/or other entities. The TWSP, consisting of the Texas A&M AgriLife Extension Service and the Texas Wildlife Damage Management Association, could continue to provide assistance as described in Alternative 1 or Alternative 2. In addition, those people experiencing damage or threats of damage caused by predators could continue to employ those methods legally available to address predator damage on their own since predators could be addressed to alleviate damage or threats without the need for a permit from the TPWD.

Most of the methods described in Appendix B of the EA would be available under this alternative. The only methods that would have limited availability to all entities to manage damage caused by predators under this alternative would be immobilizing drugs and euthanasia chemicals. Immobilizing drugs and euthanasia chemicals would only be available to appropriately licensed veterinarians or people under their supervision. All other methods described in Appendix B of the EA would be available to those people experiencing damage.

### **Alternative 4 – The WS Program Provides Technical Assistance Only**

Under the technical assistance only alternative, the WS program would continue to participate as part of the TWSP; however, personnel with the WS program would address every request for assistance with technical assistance only. Technical assistance would provide those people seeking assistance with information and recommendations on methods and techniques that those cooperators could implement without WS' direct involvement in the action. The WS program could provide technical assistance

through personal or telephone consultations and through site visits. Those people could employ methods recommended by the WS program, could employ other methods, could seek further assistance from other entities, or could take no further action. The Texas A&M AgriLife Extension Service and the Texas Wildlife Damage Management Association could continue to provide assistance as described in Alternative 1 and Alternative 2. The WS program could also refer people requesting assistance to the Texas A&M AgriLife Extension Service and the Texas Wildlife Damage Management Association.

Similar to the other alternatives, methods described in Appendix B would be available to those people experiencing damage or threats associated with predators except immobilizing drugs and euthanasia chemicals. Immobilizing drugs and euthanasia chemicals would only be available to appropriately licensed veterinarians or people under the supervision. All other methods described in Appendix B of the EA would be available to those persons experiencing damage and to other entities that could provide assistance.

#### **Alternative 5 – Use of Only Non-lethal Methods by the WS Program**

Under this alternative, the WS program would be required to implement only non-lethal methods to resolve damage or threats of damage associated with predators. Only those methods discussed in Appendix B that are considered non-lethal would be employed or recommended by the WS program. No lethal removal of predators would occur by employees of the WS program. The use of lethal methods to manage damage could continue under this alternative by the other members of the TWSP, by landowners or resource managers, and by other entities. The non-lethal methods used or recommended by the WS program under this alternative would be identical to those identified in any of the alternatives.

In situations where non-lethal methods were impractical or ineffective to alleviate damage or threats of damage, the WS program could refer requests for information regarding lethal methods to the Texas A&M AgriLife Extension Service, the Texas Wildlife Damage Management Association, other governmental agencies, and/or private businesses.

#### **ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL**

The TWSP considered additional alternatives during the development of the EA to address the issues but the TWSP did not analyze those alternatives in detail with the rationale discussed in Section 3.2 of the EA.

#### **STANDARD OPERATING PROCEDURES FOR PREDATOR DAMAGE MANAGEMENT**

The TWSP uses many standard operating procedures that improve the safety, selectivity, and efficacy of activities to manage damage associated with predators. Chapter 3 of the EA discusses the standard operating procedures that would be implemented under the alternatives, when applicable. The TWSP would incorporate those standard operating procedures into activities conducted if the decision-maker selected the no action alternative (Alternative 1), the proposed action alternative (Alternative 2), and when applicable, under the technical assistance by the WS program alternative (Alternative 4) and the use of non-lethal methods only by the WS program alternative (Alternative 5). If the decision-maker selected the no involvement by the WS program alternative (Alternative 3), the lack of assistance by the WS program could preclude the employment or recommendation of those standard operating procedures addressed in the EA.

After further consultation with the TWPD, the TWSP, including the WS program, would implement the following standard operating procedures into activities conducted by the TWSP under the appropriate alternatives when addressing predator damage and threats in the Canyon District.

- The TWSP would enter data into the Texas Natural Diversity Database regarding Species of Greatest Conservation Needs (as determined by the TPWD) encountered during program services, consistent with landowner privacy interests, when feasible.
- The TWSP would report lethal and non-lethal take of Species of Greatest Conservation Needs to the TPWD annually.
- The TWSP would consider the release of target and non-target Species of Greatest Conservation Needs, consistent with the policies and directives of the WS program, where such release would not compromise management objectives and would be consistent with other state laws and regulations (*e.g.*, movement of animals to prevent rabies).

To ensure completeness and to reflect the inclusion of those standard operating procedures into the analyses of the EA, the TWSP has inserted those standard operating procedures into the final EA in Section 3.4 under Issue 2.

## **ENVIRONMENTAL CONSEQUENCES FOR ISSUES ANALYZED IN DETAIL**

Chapter 4 of the EA analyzed the environmental consequences of each alternative in comparison to determine the extent of actual or potential impacts on the major issues identified in the EA. The no action alternative served as the baseline for the analysis and the comparison of expected impacts among the alternatives. The analysis also takes into consideration mandates, directives, and the procedures of the TWSP, the Texas Department of Agriculture, and the TPWD.

The following resource values in Texas are not expected to be significantly impacted by any of the alternatives analyzed in the EA: soils, geology, minerals, water quality/quantity, flood plains, wetlands, critical habitats (areas listed in threatened or endangered species recovery plans), visual resources, air quality, prime and unique farmlands, aquatic resources, timber, and range. The activities proposed in the alternatives would have a negligible effect on atmospheric conditions, including the global climate. Meaningful direct or indirect emissions of greenhouse gases would not occur because of any of the alternatives. Those alternatives would meet the requirements of applicable laws, regulations, and Executive Orders, including the Clean Air Act and Executive Order 13514.

### **Issue 1 - Effects of Damage Management Activities on Target Predator Populations**

A common issue when addressing damage caused by wildlife is the potential impacts of management actions on the populations of target species. Lethal and non-lethal methods would be available to resolve wildlife damage or threats to human safety. When effective, non-lethal methods would disperse predators from the area resulting in a reduction in the presence of those animals at the site. Most people regard non-lethal methods used to exclude or disperse target animals as having minimal effects on overall populations of wildlife since those animals would be unharmed. The WS program, as part of the TWSP, would not employ non-lethal methods over large geographical areas or apply those methods at such intensity that essential resources (*e.g.*, food sources, habitat) would be unavailable for extended durations or over a wide geographical scope. Therefore, long-term adverse effects would not occur to a species' population. The continued use of non-lethal methods often leads to the habituation of wildlife to those methods, which can decrease the effectiveness of those methods.

Under the no action alternative and the proposed action alternative, the WS program, as a cooperating member of the TWSP, could use lethal methods to remove those predators that employees have identified as causing damage or posing a threat to human safety. Lethal methods employed by the WS program

could reduce the number of predators present at a location. A reduction in the number of predators at a location could lead to a reduction in damage. Therefore, the use of lethal methods could result in the removal of individual animals from a local population.

The analysis in Chapter 4 of the EA measures the number of individual predators lethally removed in relation to that species abundance to determine the magnitude of impact to the populations of those species from the use of lethal methods. Magnitude may be determined either quantitatively or qualitatively. Determinations based on population estimates, allowable harvest levels, and actual harvest data are quantitative. Determinations based on population trends and harvest trend data, when available, are qualitative.

The number of individual animals removed from a species' population annually by the WS program using lethal methods under Alternative 1 and Alternative 2 would be dependent on the number of requests for assistance received, the number of predators involved with the associated damage or threat, and the efficacy of methods employed. The TWSP based the levels of annual lethal removal of target species under the no action alternative and the proposed action alternative on activities to address previous requests for assistance. In addition, the estimated annual lethal removal levels were based on receiving future requests for assistance and the efforts of the TWSP to address those requests for assistance. To ensure a cumulative analysis, the annual removal levels evaluated in the EA include those predators that the entire TWSP could remove annually, including those predators that personnel of the WS program could remove annually.

The number of predators removed by the TWSP without involvement by the WS program and other entities under Alternative 3 would be unknown but would likely be similar to the removal that could occur under Alternative 1 and Alternative 2. The TWSP with limited involvement by the WS program could continue to use all available methods to manage predator damage under Alternative 4 and Alternative 5. In addition, landowners and their agents could lethally remove predators to alleviate damage. Therefore, any predators that the WS program removes as part of the TWSP to alleviate damage, other entities, including other members of the TWSP, could remove in the absence of the WS program.

Most non-lethal and lethal methods available for resolving damage or threats associated with predators would be available under any of the alternatives. Immobilizing drugs and euthanasia chemicals would be the only methods that would have limited availability under all of the alternatives. In addition, many of the predator species addressed in the EA can be harvested in the State, including the Canyon District, during annual hunting and/or trapping seasons. Therefore, any damage management activities conducted by the TWSP under the alternatives addressed would be occurring along with other natural process and human-induced events such as natural mortality, human-induced mortality from private damage management activities, mortality from regulated harvest, and human-induced alterations of wildlife habitat.

The TWSP received one substantive comment during the public comment period regarding the population viability analysis contained in the EA for mountain lions. The commenting organization challenged the use of "*long term effective population size*" data from Young (2008) of 5,607 mountain lions in Texas. Ultimately, managers need to understand how environmental conditions (*e.g.*, hunting, immigration, emigration, and survival) affect population dynamics. Research has shown that mountain lion populations have a high level of resiliency and can recover quickly following cessation of exploitation or reduced harvest levels, and juvenile and subadult dispersal is common (Lindzey et al. 1992, Logan and Sweanor 2001, Anderson and Lindzey 2005, Robinson and DeSimone 2011). While data from Young (2008) represent the best available scientific and commercial data, the commenter is correct in that the use of those data, derived from genetic analysis, likely overstates the current population in Texas. Because

mountain lions are a widely dispersing species, the genetic population does not reflect the resident population. The TWSP recognizes that genetic contributions contained within the Texas population may be from mountain lions outside of the State.

Sweaner et al. (2000), in an unexploited population, found that 68% of female recruits came from the local population and an equal or slightly greater proportion of male recruits were immigrants. Home range size for mountain lions averaged 143 square kilometers for females and 307 square kilometers for males (Seidensticker et al. 1973, Murphy 1983, Anderson et al. 1992, Ross and Jalkotzy 1992, Spreadbury et al. 1996, Logan and Sweaner 2001). Female home ranges are thought to be based on prey availability, while male home ranges are based on female availability, with breeding opportunities set by the number of females a male's home range overlaps (Ross and Jalkotzy 1992, Murphy 1998).

To better refine the population estimate for the State, the TWSP mapped areas with known breeding mountain lion populations in west Texas. Mountain lions are known to be established in 27,825 square miles in the Trans-Pecos. Logan and Sweaner (2001) reported adult populations of 1.16 to 2.10 mountain lions per 100 square kilometers on their study site in southern New Mexico during the pre-treatment years of the study, and 0.84 to 1.99 per 100 square kilometers during the post treatment years (treatment was experimental lion removals). Their New Mexico site was contained wholly in the Chihuahuan Desert ecoregion and is representative of far west portions of the Trans-Pecos, but has less prey than most of the Texas Trans-Pecos. When considering all mountain lions within the population, Logan and Sweaner (2001) reported densities of 2.01 to 3.91 mountain lions per 100 square kilometers pre-treatment and 2.78 to 4.25 mountain lions per 100 square kilometers post-treatment. Using extremely conservative population estimates of 1 adult mountain lion per 100 square kilometers, the adult population would be estimated at about 721 individuals. Again, using extremely conservative population estimates of 2.5 mountain lions per 100 square kilometers, the overall mountain lion population would be estimated at 1,804 individuals.

The cumulative impact of mountain lion harvest includes removals by the TWSP and other human caused mortalities. There are no known established breeding populations of mountain lions in the Canyon District and the TWSP did not remove mountain lions in this District. Further, the TWSP is unaware of other mountain lion mortality within the Canyon District. Any mountain lion in the Canyon District is likely a transient and, by definition, a non-breeding individual.

On a statewide basis, the TWSP removes an average of 30.6 mountain lions per year. Some of these individuals are dispersing sub-adults and non-breeding individuals. There is no mandatory reporting of mountain lion mortality in Texas. The TWSP is aware of private mountain lion hunting and trapping in several areas and has queried the known trappers and hunters to estimate the number of non-TWSP mountain lions removed. Based on our queries and rumored lion take, the TWSP estimates that an additional 80 to 110 mountain lions are intentionally killed. Incidental take by deer hunters or landowners may total another 20 mountain lions per year (many of these are transients in areas not occupied by breeding mountain lions). Cumulatively, the TWSP estimates total lethal removal of about 130 to 160 mountain lions in any one year in Texas.

Because mountain lion harvest in Texas does not target adult animals and many of the animals taken are subadults, impacts to populations should be evaluated on the overall population as a whole. The average statewide lethal removal of lions by the TWSP represents 1.7% of a conservatively estimated population of 1,804 individuals. Cumulative take represents about 7.2 to 8.9% of the conservatively estimated population. Impacts to the breeding population would be expected to be less.

Impacts may also be mitigated through established refugia, which serve as source populations. Take by the TWSP and some private hunter take seem to bear this out, as numerous mountain lions are taken on or

near the international border with Mexico. For the west Texas population, refugia exist in three National Parks: Big Bend National Park (801,163 acres), Guadalupe National Park (86,367 acres), and Carlsbad Caverns National Park (46,766 acres). The 520,000 acres of the Maderas del Carmen biosphere reserve in northern Mexico also serves as a refuge and compliments the Big Bend National Park.

The TWSP does not expect to take any mountain lions for the protection of livestock in the Canyon District. Any mountain lion take would likely be a transient animal taken for the protection of human safety or an incidental capture in equipment set for coyotes. Based on the history of no mountain lion take in the Canyon District by the TWSP, there would be no impacts by the TWSP under the proposed action alternative.

To determine the magnitude of impacts in relation to predators and their populations adequately, the EA analyzed the data and known cumulative removal of predators. Based on those quantitative and qualitative parameters addressed in the EA and the further discussion of effects on mountain lions in this Decision, the proposed levels of lethal removal for each predator species addressed under the alternatives would be considered of low magnitude when compared to population trend data, population estimates, and/or harvest data. The number of predators lethally removed annually under the alternatives would likely be similar since the removal of predators could occur despite no involvement by the WS program, or limited involvement by the WS program. The WS program, individually, does not have the authority to regulate the number of predators lethally removed annually by other entities, including other members of the TWSP.

The lethal removal of predators by the TWSP to alleviate damage or threats of damage from FY 2009 through FY 2011 was of a low magnitude when compared to the total known removal of those species and the populations of those species. The analysis in the EA indicates predator populations are not being impacted to the point of causing a substantial decline. If, at some point in the future, wildlife populations declined due to harvest or damage management activities, then such a decline would not necessarily constitute a significant impact on the quality of the human environment as defined by the NEPA. Such a decline would not constitute a significant effect so long as the actions that caused the decline were in accordance with the responsible management agency's goals and objectives, with applicable state law, and concomitantly, with the collective desires of the people of the District or State.

From the standpoint of the NEPA, additional justification for a finding of no significant impact on the quality of the human environment with respect to the lethal removal of predators in the Canyon District is that the environmental status quo would be expected to be virtually the same in the absence of federal action by the WS program. If the federal WS program provided no assistance, it is reasonable to expect that State agency and/or private individuals would remove the same or closely similar numbers of individual predators as allowed under State law.

## **Issue 2 - Effects on Non-target Species Populations, Including T&E Species**

Another issue often raised is the potential impacts to populations of wildlife from the unintentional removal of non-target animals during damage management activities. While the TWSP, including the WS program, would make efforts to minimize the risks of lethally removing non-target animals, the potential does exist for the unintentional removal of non-targets during damage management activities.

Under the no involvement by the WS program alternative (Alternative 3), the WS program would not provide assistance with any aspect of managing damage associated with predators; therefore, no direct impacts to non-targets would occur from the WS program. However, other members of the TWSP and/or private landowners and their agents could continue to employ methods to alleviate damage that could

result in non-target removals that were similar to the no action (Alternative 1) and the proposed action (Alternative 2) alternatives.

Under the technical assistance only alternative (Alternative 4), the WS program could provide information on the proper use of methods and provide demonstration on the use of methods but the WS program would not provide direct operational assistance by using methods to alleviate predator damage or threats. However, the Texas A&M AgriLife Extension Service and the Texas Wildlife Damage Management Association could continue to provide direct operational assistance under the TWSP despite no or limited involvement by the WS program. In addition, landowners and their agents could address damage associated with predators without any involvement by the WS program and/or the TWSP.

Similar to the no involvement by the WS program alternative (Alternative 3) and the non-lethal methods only alternative (Alternative 5), under the technical assistance alternative (Alternative 4), if other entities applied those methods as intended and with regard for non-target hazards, those methods would not result in the decline of non-target species' populations. If the WS program provided requesters with technical assistance but those entities do not implement any of the recommended actions and take no further action, the potential impacts to non-targets would be lower than the no action (Alternative 1) and the proposed action (Alternative 2). If those persons requesting assistance implemented recommended methods appropriately and as instructed or demonstrated, the potential impacts to non-targets would be similar to the no action (Alternative 1) and the proposed action (Alternative 2) alternatives. Methods or techniques used inappropriately by any entities would likely increase risks to non-targets. When employing direct operational assistance under the alternatives, the TWSP, including the WS program, would employ methods and use techniques that would avoid non-target removal as described in Chapter 3 of the EA under the standard operating procedures.

The methods described in Appendix B have a high level of selectivity and could be employed using standard operating procedures to ensure minimal impacts to non-target species. The unintentional take of wildlife would likely be limited and would not reach a magnitude where adverse effects would occur. Based on the methods available to resolve predator damage and/or threats and the analysis in the EA, the TWSP does not anticipate the number of non-targets taken to reach a magnitude where declines in those species' populations would occur. Therefore, take under the proposed action of non-targets would not cumulatively affect non-target species.

The TWSP reviewed those threatened and endangered species listed in the Canyon District during the development of the EA. The TWSP has consulted and would continue to consult with the United States Fish and Wildlife Service to evaluate activities to resolve predator damage to ensure the protection of threatened or endangered species and to comply with the Endangered Species Act.

### **Issue 3 - Effects of Damage Management Methods on Human Health and Safety**

The threats to human safety from methods would be similar across the alternatives since those methods would be available under all the alternatives. However, the expertise of the TWSP in using those methods available likely would reduce threats to human safety since employees of the TWSP would be trained and knowledgeable in the use of those methods. If people implemented methods incorrectly or without regard for human safety, risks to human safety would increase under any of the alternatives that people could employ those methods. The EA determined that the availability of immobilizing drugs and euthanasia chemicals under the alternatives would not increase risks to human safety from the use of those methods. Although risks do occur from the use of immobilizing drugs and euthanasia chemicals, when the TWSP uses those methods in consideration of human safety, the use of those methods would not pose additional risks to human safety beyond those associated with the use of other methods. From FY 2009 through FY 2011, no adverse effects to human safety by the TWSP have occurred from the use

of those methods available. The risks to human safety from the use of non-lethal and lethal methods, when used appropriately and by trained personnel, would be low.

#### **Issue 4 - Effects of Damage Management Activities on Recreational Activities**

Outdoor recreation encompasses a wide variety of activities that people may consider as consumptive or non-consumptive use. Consumptive uses may include activities such as hunting, fishing, and rock-hounding. Non-consumptive uses may include activities such as bird watching, photography, camping, hiking, biking, rock climbing, winter sports, and water sports.

The WS program, through the TWSP program, would only conduct damage management activities when requested by the appropriate property owner or manager. The TWSP would attempt to minimize conflicts with recreational activities by coordinating activities with the requesting land management entity (e.g., by developing work plans). Therefore, the requesting entity would determine what activities would be allowed and when assistance was required. Because the TWSP would only conducted activities when requested by the appropriate property owner or manager and the requesting entity would determine what methods would be used to alleviate damage, no conflict with recreational activities would likely occur under any of the alternatives.

#### **Issue 5 - Humaneness and Animal Welfare Concerns of Methods**

The EA also analyzed the issue of humaneness in relationship to methods available under each of the alternatives. Since many methods addressed in Appendix B of the EA would be available under all the alternatives, the issue of method humaneness would be similar for those methods across all the alternatives. As stated previously, immobilizing drugs and euthanasia chemicals would be the only methods that would have limited availability under some of the alternatives. Under the no action alternative and the proposed action alternative, the TWSP, including the WS program, would consider method humaneness when conducting damage management activities and the TWSP would employ methods as humanely as possible. Under the technical assistance alternative, if those people receiving technical assistance from the WS program employ those methods recommended inappropriately or without consideration of predator behavior, those persons could employ those methods inhumanely. Despite the lack of involvement by the WS program under Alternative 3 and WS' limited involvement under Alternative 4, those methods perceived as inhumane by certain individuals and groups would still be available to the public to use to resolve damage and threats caused by predators. A lack of understanding of the behavior of predators or improperly identifying the damage caused by predators along with inadequate knowledge and skill in using methodologies to resolve the damage or threat could lead to incidents with a greater probability of people perceiving those situations as inhumane under Alternative 1 and Alternative 2.

### **CUMULATIVE IMPACTS OF THE PROPOSED ACTION**

No significant cumulative environmental impacts were identified from any of the five alternatives, including the proposed action. The lethal removal of predators to alleviate damage or threats of damage would be of a low magnitude when compared to the total known removal of those species and the populations of those species. The unintentional removal of non-target wildlife would likely be limited and would not reach a magnitude where adverse effects would occur. Based on the methods available to resolve predator damage and/or threats and the analysis in the EA, the TWSP does not anticipate the number of non-targets taken to reach a magnitude where declines in those species' populations would occur.

The TWSP has received no reports or documented any effects to human safety from damage management activities conducted from FY 2009 through FY 2011. No cumulative effects from the use of those methods discussed in Appendix B would be expected given the use patterns of those methods for resolving predator damage in the Canyon District. Because the TWSP would only conduct activities when requested by the appropriate property owner or manager and the requesting entity would determine what methods would be used to alleviate damage, no conflict with recreational activities would likely occur. The TWSP would employ methods as humanely as possible by applying standard operating procedures to minimize pain and allow wildlife captured to be addressed in a timely manner to minimize distress. The analysis in the EA indicates that an integrated approach to managing damage and threats caused by predators would not result in significant cumulative effects on the quality of the human environment.

## **DECISION AND RATIONALE**

Based on the analyses of the alternatives that were developed to address those issues analyzed in detail within the EA, including individual and cumulative impacts of those alternatives, I, the decision-maker, have made the following decision.

### ***Decision***

I have carefully reviewed the EA prepared to meet the need for action. I find the proposed action alternative (Alternative 2) to be environmentally acceptable, addressing the issues and needs while balancing the environmental concerns of management agencies, landowners, advocacy groups, and the public. The analyses in the EA adequately addresses the identified issues, which reasonably confirm that no significant impact, individually or cumulatively, to wildlife populations or to the quality of the human environment are likely to occur from the proposed action, nor does the proposed action constitute a major federal action. Therefore, the analysis in the EA does not warrant the completion of an Environmental Impact Statement.

Based on the analyses in the EA, the issues identified are best addressed by selecting Alternative 2 (proposed action/no action) and applying the associated standard operating procedures discussed in Chapter 3 of the EA and in this Decision. Alternative 2 would successfully address predator damage using a combination of the most effective methods and would not adversely affect the environment, property, human safety, and/or non-target species, including threatened or endangered species. Alternative 2 would offer the greatest chance of maximizing effectiveness and benefits to resource owners and managers while minimizing cumulative effects on the quality of the human environment that might result from the program's effect on target and non-target species' populations. In addition, Alternative 2 would present the greatest chance of maximizing net benefits while minimizing adverse effects to public health and safety. Alternative 2 would also offer a balanced approach to the issues of humaneness and aesthetics when all facets of those issues were considered. Further analysis would be triggered if changes occur that broaden the scope of damage management activities, that affect the natural or human environment, or from the issuance of new environmental regulations. Therefore, it is my decision to implement the proposed action alternative (Alternative 2) as described in the EA.

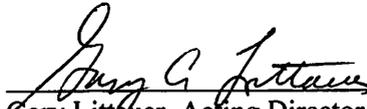
### ***Finding of No Significant Impact***

Based on the analyses provided in the EA, there are no indications that the proposed action (Alternative 2) would have a significant impact, individually or cumulatively, on the quality of the human environment. I agree with this conclusion and therefore, find that an Environmental Impact Statement should not be prepared. This determination is based on the following factors:

1. Managing damage caused by predators, as conducted by the TWSP in the Canyon District, would not be regional or national in scope.
2. Based on the analyses in the EA, the methods available would not adversely affect human safety based on their use patterns and standard operating procedures.
3. The proposed action alternative would continue to have no significant effect on unique characteristics, such as parklands, prime farmlands, wetlands, wild and scenic areas, or ecologically critical areas. Standard operating procedures and adherence to laws and regulations that govern impacts on elements of the human environment would assure that significant adverse impacts were avoided.
4. The effects on the quality of the human environment are not highly controversial. Although there may be opposition to killing predators, this action is not controversial in terms of size, nature, or effect. Based on consultations with the TPWD, the proposed action is not likely to cause a controversial disagreement among the appropriate resource professionals.
5. Based on the analysis in the EA and the accompanying administrative file, the effects of the proposed damage management program on the human environment would not be significant. The effects of the proposed activities are not highly uncertain and do not involve unique or unknown risks.
6. The proposed action would not establish a precedent for any future action with significant effects. This action would not set a precedent for future actions that may be implemented or planned within the District.
7. No significant cumulative effects were identified through the assessment. The EA analyzed cumulative effects and concluded that such impacts were not significant for this or other anticipated actions to be implemented or planned within the Canyon District or the State of Texas.
8. The proposed activities would not affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places, nor would they likely cause any loss or destruction of significant scientific, cultural, or historical resources.
9. The TWSP has consulted and would continue to consult with the United States Fish and Wildlife Service to evaluate activities to resolve predator damage to ensure the protection of threatened or endangered species and to comply with the Endangered Species Act.
10. The proposed action would comply with all applicable federal, state, and local laws.

### ***Rationale***

The rationale for this decision is based on several considerations. This decision takes into account public comments, social/political and economic concerns, public health and safety, and the best available science. The foremost considerations are that: 1) the TWSP would only conduct damage management at the request of landowners/managers, 2) management actions would be consistent with applicable laws, regulations, policies and orders, and 3) no cumulative effects to the environment were identified in the analysis. As a part of this Decision, the TWSP would continue to provide effective and practical technical assistance and direct management techniques that reduce damage and threats of damage.

  
\_\_\_\_\_  
Gary Litzauer, Acting Director-Western Region  
USDA/APHIS/WS  
Fort Collins, Colorado

9/17/14  
\_\_\_\_\_  
Date

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## APPENDIX A

### RESPONSES TO COMMENTS ON THE ENVIRONMENTAL ASSESSMENT: PREDATOR DAMAGE MANAGEMENT IN THE CANYON DISTRICT OF TEXAS

During the public involvement process for the EA, WS received 2,857 comment letters during the public involvement process. Of those letters received, 2,856 were form letters containing the exact same comments or slight variations of the comments. WS has reviewed the comments to identify additional issues, alternatives, and/or concerns that were not addressed in the EA. The comments received during the public involvement process are summarized below along with responses to the comments.

#### I. AGRIBUSINESS

**Comment 1** – Wildlife should be managed for the benefit of all people, not just ranchers and cattlemen. Ranchers should not get to decide the best option for managing wildlife. The size of our human population makes it imperative that we use our “*higher intelligence*” to protect our whole environment rather than attack parts of it for the economic benefit of only a few. There are examples all over the world showing that apex predators and humans/livestock can live together with minimal conflict.

**Response:** As stated in Section 1.1 of the EA, “[w]ildlife is an important public resource greatly valued by people. Wildlife can have either positive or negative values depending on the perspectives and circumstances of individual people. In general, people regard wildlife as providing economic, recreational, and aesthetic benefits. Knowing that wildlife exists in the natural environment provides a positive benefit to many people.” As defined in WS Directive 1.201, “WS vision is to improve the coexistence of people and wildlife while considering a wide range of public interests that can include wildlife conservation, biological diversity, and the welfare of animals as well as the management of wildlife for purposes of enjoyment, recreation and livelihood.”

In most cases, the TPWD is responsible for the management of native wildlife in the State and not the TWSP (see Section 1.5 of the EA). The Texas Legislature has authorized the State of Texas to cooperate through The Texas A&M University System with the WS program to control predatory animals and rodent pests (Texas Health and Safety Code, Title 10, Ch. 825). The TWSP would collaborate with the TPWD by sharing data regarding predator damage management, cooperating with the protection of native wildlife from predation, and assisting with the collection of scientific data and samples as appropriate for management decisions. The TWSP maintains a policy of conducting activities consistent with any management directions or plans that the TPWD has established on behalf of the State as applicable to the authorities of the TWSP. In addition, the TWSP would only provide assistance when the appropriate landowner or manager requests such assistance. Therefore, the TWSP recognizes the importance of managing wildlife for the benefit of all people, including those people that experience wildlife damage.

**Comment 2** - The killing of predators by the federal government for the benefit of private interest amounts to a government subsidy of business costs for agriculture. If these outdated rural businesses cannot make it without government help, it means they need to go and be replaced with more sound agricultural methods.

**Response:** As discussed in Section 1.5 of the EA, the Texas Legislature has authorized the State of Texas to cooperate through the Texas A&M University System with the WS program to control predatory animals and rodent pests (Texas Health and Safety Code, Title 10, Ch. 825). Changing the agricultural practices that people conduct is not within the authority of the TWSP or the WS program; therefore, is outside the scope of the EA.

**Comment 3** - Ranchers contribute to global warming, especially if they are ranching on public lands.

**Response:** Changing the agricultural practices that people conduct is not within the authority of the TWSP or the WS program. Similarly, the TWSP, including the WS program, does not manage public lands; therefore, the activities that other agencies allow to occur on public lands are outside of the authority of the TWSP and the WS program. Livestock grazing in Texas occurs at the discretion of the property owner or manager without involvement from the TWSP or any activities conducted by the TWSP. Therefore, damage management activities conducted by the TWSP would not automatically trigger livestock grazing. Livestock grazing clearly can and would proceed in the absence of damage management assistance provided by the TWSP and the WS program. Therefore, any contribution of grazing to changes in the global climate would occur under any of the alternatives analyzed in the EA and would be the considered part of the environmental status quo.

**Comment 4** - Stop killing predators just because ranchers do not want to spend a few more dollars for non-lethal methods. Farmers should just keep their livestock away from the wild animals.

**Response:** The National Agriculture Statistics Service (2005) reported that many Texas sheep and goat producers used non-lethal methods to reduce predator damage. Producers in Texas used fencing (32%), guard dogs (29%), night penning (24%), donkeys (24%), frequent checks (17%), lamb shed (16%), culling (11%), llamas (11%), bedding change (7%), herding (5%), carrion removal (5%), other nonlethal methods (4%), and frightening tactics (1%) to reduce predation. The National Agriculture Statistics Service (2011) also reported that Texas cattle producers used guard animals (50%), culling (31%), frequent checks (30%), and exclusion fencing (24%) to reduce predation.

Therefore, an entity requesting assistance may have already attempted to alleviate damage using non-lethal methods and the TWSP would not necessarily employ those same non-lethal methods for that request, since the prior use of those methods were ineffective at reducing damage or threats to an acceptable level to the requester. As stated throughout the EA, the WS program would give preference to non-lethal methods where practical and effective under the alternatives in accordance with WS Directive 2.101. However, few non-lethal methods available to alleviate damage or threats associated with predators, such as livestock management practices (*e.g.*, night-penning, herding, carcass removal) and physical exclusion (*e.g.*, predator-proof fencing), are practical for implementation by WS' personnel or personnel of the TWSP. The resource owner is responsible for the implementation of most non-lethal methods (Knowlton et al. 1999). As shown by reports from the National Agriculture Statistics Service (2005, 2011), in many cases, livestock producers are already employing non-lethal methods to alleviate or prevent predation.

**Comment 5** - People should have livestock on their own land that they pay taxes on, just like everyone else. Livestock owners are furnished public land for free or small fees and bribes to politicians.

**Response:** Private individuals own most of the land area in the Canyon District, as well as most of Texas. Gorte et al. (2012) indicated that federal land comprises 1.8% of the land area in Texas. Therefore, most livestock occur on private property in the District and the State. Changing the agricultural practices that people conduct is not within the authority of the TWSP or the WS program. Similarly, the TWSP, including the WS program, does not manage public lands; therefore, the activities that other agencies allow to occur on public lands are outside of the authority of the TWSP and the WS program. Livestock grazing in Texas occurs at the discretion of the property owner or manager without involvement from the TWSP or any activities conducted by the TWSP.

## II. ANIMAL RIGHTS/HUMANENESS

**Comment 1** – There should be zero tolerance for human cruelty towards all animals. The TWSP uses cruel and inhumane practices that Americans do not approve of. The methodology utilized must be humane and acceptable.

**Response:** The humaneness of methods and animal welfare concerns was an issue addressed in detail throughout the EA (see Section 2.2, Section 4.1, and Section 4.2), including standard operating procedures to address humaneness and animal welfare (see Section 3.4). The EA states “...research has not yet progressed to the development of objective, quantitative measurements of pain or stress for use in evaluating humaneness.” When discussing the use of welfare assessments, Sharp and Saunders (2008, 2011) stated “[Kirkwood et al. (1994)] warn that the process of allocating a score to reflect the severity of harm to welfare should be used with great caution due to a number of difficulties with this approach.” Sharp and Saunders (2008, 2011) also stated “[w]ith regard to animal suffering, [Kirkwood et al. (1994)] take the view that although all mammals and birds have the capacity to suffer the unpleasant sensations of pain or stress, there is insufficient information to grade this suffering. Although Sharp and Saunders (2008, 2011) attempt to address the use of a humaneness model, they also indicate such a model has several disadvantages. The disadvantages of welfare assessment identified by Sharp and Saunders (2008, 2011) include (1) subjective judgments would have to be made due to the lack of objective data relating to welfare, (2) a humaneness assessment would only provide a grade instead of providing an absolute measure, (3) grades assigned by individual assessors would be based purely on their own subjective opinion, and (4) a model cannot provide how the animal actually feels.

Many of the factors and considerations identified by Sharp and Saunders (2008, 2011) for use in humaneness models, have been addressed through the establishment of best management practices for trapping in the United States (e.g., see International Association of Fish and Wildlife Agencies 1997, Association of Fish and Wildlife Agencies 2006). WS recognizes the value and use of the best management practices for trapping and utilizes those guidelines as a basis for policy formulation (see WS Directive 2.450). As the EA states “[t]he goal of WS would be to use methods as humanely as possible to effectively resolve requests for assistance to reduce damage and threats to human safety. WS would continue to evaluate methods and activities to minimize the pain and suffering of methods addressed when attempting to resolve requests for assistance.”

**Comment 2** - All species deserve a right to live on this planet and we have no right to kill everything. Native species have the right to exist and humans should not have the ability or opportunity to randomly harm and maim simply because they exist. There is no justification for killing animals and there are better ways to protect livestock than assuming such animals have no right to be here, much less to deserve life.

**Response:** The TWSP understands the philosophy that some people have that society should extend the rights of people to animals. As stated throughout the EA, the TWSP would only provide assistance after receiving a request for such assistance and would only employ those methods that the requesters agree with. Therefore, those people requesting assistance from the TWSP may prefer and request that the TWSP use lethal methods to remove those animals causing damage or posing a threat of damage. In addition, the standard WS Decision Model (Slate et al. 1992; see WS Directive 2.201) would be the site-specific procedure for individual actions that the TWSP could conduct in the State (see Chapter 3 of the EA for a description of the Decision Model and its application). Decisions made using the model would be in accordance with SOPs described in the EA and WS’ directives, as well as relevant laws and regulations. Using the Decision Model and based on site visits or reported information, the TWSP would consider several factors before selecting or recommending methods and techniques. However, the TWSP would give preference to non-lethal methods when formulating a management strategy using the WS

Decision Model pursuant to WS Directive 2.101. When the person requesting assistance determined the death of animal was necessary, the goal of the TWSP would be to use methods in the most humane way possible that minimizes the stress and pain to the animal.

### **III. TAX DOLLARS SHOULD NOT BE USED/ WS PROGRAM SHOULD BE ELIMINATED**

**Comment 1** – The budget of the WS program should be reduced. Tax dollars should not be used to kill wildlife. Taxpayers should not foot the bill for pest control for agriculture. It would help our economy to defund the WS program. The WS program should be eliminated.

**Response:** The TWSP considered this issue during the development of the EA but the TWSP did not analyze the issue in detail for the reasons provided in Section 2.3 of the EA. Damage management activities are an appropriate sphere of activity for government programs, since managing wildlife is a government responsibility. Eliminating the WS program would be similar to the alternative analyzed in detail in the EA where there would be no involvement by WS program with any aspect of managing predator damage within the Canyon District (Alternative 3). Therefore, adding an analysis of an additional alternative whereby WS or another entity pursued the termination of the authority of WS would not add to the existing analyses in the EA. Under Alternative 3, the WS program would not be involved with any aspect of managing predator damage; however, other members of the TWSP or another entity could conduct damage management activities in the absence of the WS program.

### **IV. SUPPORT FOR DAMAGE MANAGEMENT**

**Comment 1** – Full support for efforts to cull the coyote population and other predator species. Predators kill livestock and are not endangered species.

**Response:** The need for action to manage damage and threats associated with predators in the Canyon District arises from requests for assistance received by the TWSP, such as the need to address predation on livestock as addressed by the commenter. Chapter 4 of the EA analyzed the environmental consequences of each alternative in comparison to determine the extent of actual or potential impacts on the major issues identified in the EA. Predators play a vital role in a healthy ecosystem; therefore, a common issue when addressing damage caused by predators is the potential impacts of management actions on the populations of target species. As the commenter states, none of the predators addressed in the EA are endangered and the analyses in Chapter 4 indicates that activities to alleviate damage would be of low magnitude when compared to population trend data, population estimates, and/or harvest data of those species.

### **V. NON-LETHAL METHODS/THE WS PROGRAM IS NOT USING CURRENT METHODS**

**Comment 1** - The conflict between wildlife and livestock is a real issue, but non-lethal solutions must be employed. The WS program and cattle owners need to seek solutions that use non-lethal methods. Lethal methods are vicious and this inhumane approach is the wrong way to address conflicts between wildlife and livestock.

**Response:** As shown by reports from the National Agriculture Statistics Service (2005, 2011), in many cases, livestock producers are employing non-lethal methods to alleviate or prevent predation. Therefore, an entity requesting assistance may have already attempted to alleviate damage using non-lethal methods and the TWSP would not necessarily employ those same non-lethal methods for that request, since the prior use of those methods were ineffective at reducing damage or threats to an acceptable level to the requester. As stated throughout the EA, the WS program would give preference to non-lethal methods where practical and effective under the alternatives in accordance with WS Directive 2.101. However,

few non-lethal methods available to alleviate damage or threats associated with predators, such as livestock management practices (*e.g.*, night-penning, herding, carcass removal) and physical exclusion (*e.g.*, predator-proof fencing), are practical for implementation by WS' personnel. The resource owner is responsible for the implementation of most non-lethal methods (Knowlton et al. 1999).

**Comment 2** - Please come up to date on managing wildlife. Things have changed a lot since the old methods were started and we need to do as much as possible to protect wildlife opposed to wide spread killing of wildlife. The WS program uses non-selective lethal wildlife control methods abandoned by the more enlightened agencies years ago.

**Response:** Appendix B in the EA discusses the methods available for use under each of the alternatives and Chapter 4 of the EA further discusses their use. The National Wildlife Research Center (NWRC) functions as the research unit of WS by providing scientific information and the development of methods for wildlife damage management, which are effective and environmentally responsible. Research biologists with the NWRC work closely with wildlife managers, researchers, and others to develop and evaluate methods and techniques for managing wildlife damage. Therefore, WS has a dedicated unit for the research and development of new methods and incorporates those methods into activities when deemed practical and effective using the WS' Decision Model. It is the policy of WS to incorporate the Decision Model into agency decision-making when evaluating and responding to requests for assistance (see WS Directive 2.201).

**Comment 3** - Ranchers should use donkeys, mules, or llamas as guard animals for goats, sheep, new calves, and other small vulnerable livestock in large pastures.

**Response:** The EA discusses the availability of guard animals. The National Agriculture Statistics Service (2011) reported that 36.9% of livestock producers in the United States were using guard animals, which was the primary non-lethal method employed. The National Agriculture Statistics Service (2011) also reported that 50% of Texas cattle producers used guard animals. The TWSP often recommends the use of guard animals, but does not have an operational program. Therefore, the livestock producer would be responsible for implementing the use of guard animals.

## **VI. DECLINING WILDLIFE POPULATIONS/IMPERILED SPECIES**

**Comment 1** – Wildlife have declined in my area of Texas. Coyotes, bobcats, and mountain lions frequented my land but they have now disappeared. Poisoned animals are often eaten by other animals, which are in turn poisoned causing population declines. Activities of the TWSP threaten many imperiled species in Texas and species with declining populations.

**Response:** When addressing damage caused by wildlife, a common issue is the potential impacts of management actions on the populations of target species. The EA analyzed in detail the effects of damage management activities on target predator populations. Section 4.1 of the EA analyzed the environmental consequences of each alternative in comparison to determine the extent of actual or potential impacts on this issue. Evaluation of activities relative to target species, including coyotes, bobcats, and mountain lions, indicated that program activities would likely have no cumulative adverse effects on predator populations when targeting those species responsible for damage at the levels addressed in the EA. Actions of the TWSP would be occurring simultaneously, over time, with other natural processes and human generated changes that are currently taking place. All those factors play a role in the dynamics of predator populations. Section 4.2 of the EA discusses the cumulative effects further.

Another issue often raised is the potential impacts to populations of wildlife that could be taken as non-targets during damage management activities. While efforts would be made to minimize the risks of lethally taking non-target wildlife, the potential does exist for the unintentional take of non-targets during damage management activities. Section 4.1 and Section 4.2 of the EA analyze the potential effects on the populations of non-target wildlife species, including T&E species, from the implementation of the alternatives.

## VII. HUMAN POPULATION/GREED

**Comment 1** - Politicians and politics have become so far removed from the people that the importance of wildlife and our land has no value. Money, making money, and spending money has become the lust of the land. The power of the “*dollar*” is very frustrating.

**Response:** The decisions made by politicians and the level of importance that people may place on money are outside the scope of the EA.

**Comment 2** - If anything needs to become more extinct it is humanity. People are encroaching on wildlife.

**Response:** The TWSP, including the WS program, does not have the statutory authority to regulate human population growth or development. Therefore, managing the behavior of people is outside the scope of the EA.

## VIII. BIODIVERSITY/OPPOSE ERADICATION

**Comment 1** - Consider the wellbeing of our ecosystems, which depend so heavily on the health of keystone predator populations. Let wildlife balance itself and quit disrupting the natural order. Predators are rare. Our biodiversity has more value alive than dead. Scientists have long recognized the critical roles that predators play in natural ecosystems.

**Response:** The TWSP considered this issue during the development of the EA. However, a detailed analysis did not occur for the reasons provided in Section 2.3 of the EA.

**Comment 2** - I am strongly opposed to eradication of large predators and oppose programs designed to kill them. The TWSP should use options other than extermination. People share this planet with these animals and we are not the owners of this earth. People are meant to be caretakers of wildlife. We must share the environment. The indiscriminate killing of wildlife has gone on for far too long. The government should have never been in the business of exterminating wildlife for the livestock industry or anyone else. We should be learning to co-exist, not use “*vermin*” extermination programs.

**Response:** As stated in the EA, the TWSP would only provide assistance under the appropriate alternatives after receiving a request to manage damage or threats. Therefore, if the TWSP provided direct operational assistance under the alternatives, the TWSP would provide assistance on a small percentage of the land area in the Canyon District. In addition, the TWSP would only target those predators identified as causing damage or posing a threat. The TWSP would not attempt to eradicate or suppress predator populations across broad geographical areas. The goal of the TWSP would not be to manage predator populations but to manage damage or threats associated with specific individuals of a species.

**Comment 3** - We need more predators, not fewer. Populations of deer, feral pig, squirrel, and Norwegian rats are all burgeoning, because we do not have enough predators keeping them in check. The whitetail

deer population is out of control and we desperately need the return of our top predators, including the mountain lion. Predators kill rodents, which are huge disease vectors.

**Response:** As described in Section 2.3 of the EA, the TWSP would not attempt to eradicate any species of native wildlife. The TWSP operates in accordance with federal and state laws and regulations enacted to ensure species viability. The TWSP would use available methods to target individual animals or groups of animals identified as causing damage or posing a threat of damage. Any reduction of a local population or group is frequently temporary because immigration from adjacent areas or reproduction replaces the animals removed. For example, studies suggest coyote territories would not remain vacant for very long after removing coyotes from an area. Gese (1998) noted that adjacent coyote packs adjusted territorial boundaries following social disruption in a neighboring pack, thus allowing for complete occupancy of the area despite removal of breeding coyotes. Blejwas et al. (2002) noted that a replacement pair of coyotes occupied a territory in approximately 43 days following the removal of the territorial pair. Williams et al. (2003) noted that temporal genetic variation in coyote populations experiencing high turnover (due to removals) indicated that “...*localized removal effort does not negatively impact effective population size...*”. The TWSP also identified the potential for the removal of predators to cause increases in the populations of other wildlife species as an issue. The TWSP did not analyze this issue in detail for the reasons provided in Section 2.3 of the EA.

**Comment 4 -** It is bleak future without wild lands and wild animals to teach us about ourselves and show us some universal truths and beauty, and to see creation itself and get a break from cities and stress. The actions of the TWSP often contradict and undermine the efforts of other government agencies assigned to protect predator species. Tourist dollars bring in more money and jobs to the economy than small ranchers do.

**Response:** The TWSP considered the impacts of predator removal on the public’s aesthetic enjoyment of predators during the development of the EA. However, a detailed analysis did not occur for the reasons provided in Section 2.3 of the EA.

## **IX. SUPPORT FOR ALTERNATIVE 3**

**Comment 1 -** Alternative 3 should be selected because of opposition to the involvement of the WS program in lethal predator management. I am a strong advocate for USDA-Natural Resources Conservation Service agents and the excellent advice that they provide to ranchers and rural landowners.

**Response:** Chapter 3 of the EA contains a discussion of the alternatives that the TWSP developed through the scoping process to address the identified issues discussed in Chapter 2. The TWSP developed the alternatives for consideration using the WS Decision model based on the issues identified. The EA discusses the issues associated with managing predator damage in the Canyon District to meet the need for action and evaluates different alternatives to meet that need while addressing those issues.

Alternative 3 would preclude any and all activities by the federal WS program to reduce threats to human health and safety, and alleviate damage to agricultural resources, property, and natural resources. The WS program would not provide assistance with any aspect of managing predator damage in the Canyon District under Alternative 3. The TWSP would consist of the Texas A&M AgriLife Extension Service and the Texas Wildlife Damage Management Association. The WS program would refer all requests for assistance to the TWSP, other governmental agencies, and/or private entities. The TWSP, consisting of the Texas A&M AgriLife Extension Service and the Texas Wildlife Damage Management Association, could continue to provide assistance as described in Alternative 1 or Alternative 2.

As stated in Chapter 1 of the EA, the primary statutory authorities for the WS program are the Act of March 2, 1931 (46 Stat. 1468; 7 USC 426-426b) as amended, and the Act of December 22, 1987 (101 Stat. 1329-331, 7 USC 426c). The WS program is the lead federal authority in managing damage to agricultural resources, natural resources, property, and threats to human safety associated with wildlife.

## **X. WS LACKS REGULATORY FRAMEWORK AND ACCOUNTABLE TO NO ONE**

**Comment 1** – The WS program lacks a regulatory framework and behaves like a rogue agency -- out of control and accountable to no one. The WS program must not be trusted to carry out predator management.

**Response:** The primary statutory authority for the WS program is the Act of March 2, 1931 (46 Stat. 1468; 7 USC 426-426b) as amended, and the Act of December 22, 1987 (101 Stat. 1329-331, 7 USC 426c). The WS program is the lead federal authority in managing damage to agricultural resources, natural resources, property, and threats to human safety associated with wildlife. WS' directives define program objectives and guide WS' activities when managing wildlife damage. The TWSP would comply with applicable federal, state, and local laws and regulations in accordance with WS Directive 2.210 (see Section 1.6 of the EA).

## **XI. JEOPARDIZE VULNERABLE POPULATIONS OF MOUNTAIN LIONS IN THE STATE**

**Comment 1** - Under proposed Alternative 1 and Alternative 2, the continued killing of predators in Texas by the TWSP would jeopardize vulnerable populations of mountain lions in the state – an unacceptable risk.

**Response:** Mountain lions have an extensive distribution across western North America including portions of Texas (Young 2009). Mountain lions can inhabit many habitat types in Texas from desert to mountain environments, indicating a wide range of adaptability. Schmidly (2004) stated mountain lions were once distributed across Texas but are now known only in desert mountain ranges in the Trans-Pecos, parts of the Edwards Plateau, and in the Rio Grande Plains. In Texas, the mountain lion is not managed as a big game species and harvest is unrestricted. Under State law, no restrictions on the take of mountain lions currently exist; therefore, mountain lions can be addressed by any entity to alleviate damage or threats of damage. The TWSP does not expect to take any mountain lions for the protection of livestock in the Canyon District. Any mountain lion take would likely be a transient animal taken for the protection of human safety or an incidental capture in equipment set for coyotes. Based on the analyses in Section 4.1 of the EA and further analyses conducted in this Decision, the number of mountain lions lethally removed by the TWSP is unlikely to reach a magnitude where adverse effects would occur to the mountain lion population.

## **XII. NEED TO PREPARE AN ENVIRONMENTAL IMPACT STATEMENT**

**Comment 1** – An Environmental Impact Statement should be prepared

**Response:** This issue was addressed in Chapter 2 of the EA. The underlying intent for preparing an EA is to determine if a proposed action might have a significant impact on the human environment. The EA development process is issue driven, meaning issues that were raised during the interdisciplinary process and through public involvement that were substantive, were used to drive the analysis and determine the significance of the environmental impacts of the proposed action and the alternatives. Therefore, the level of site specificity must be appropriate to the issues listed.

The analysis in the EA was driven by the issues raised during the scoping process during the development of the EA. In addition to the analysis contained in the EA, WS' personnel use the WS Decision Model (Slate et al. 1992) described in Chapter 3 of the EA as a site specific tool to develop the most appropriate strategy at each location (see WS Directive 2.201). The WS Decision Model is an analytical thought process used by WS' personnel for evaluating and responding to wildlife damage management requests. If a determination were made through the EA that the alternatives developed to meet the need for action could result in a significant impact on the quality of the human environment, then an Environmental Impact Statement would be prepared.

### **XIII. LITERATURE CITED**

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