DECISION

ENVIRONMENTAL ASSESSMENT: FERAL SWINE DAMAGE MANAGEMENT BY THE OKLAHOMA WILDLIFE SERVICES PROGRAM

PURPOSE

The United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Wildlife Services (WS) program, in cooperation with the Oklahoma Department of Agriculture Food and Forestry (ODAFF), prepared an environmental assessment (EA) to evaluate alternative approaches to managing damage caused by feral swine (*Sus scrofa*)[1] in the State of Oklahoma (USDA 2014).

The EA documents the need for damage management in the State and assesses potential impacts to the human environment of three alternatives to address that need. WS and the ODAFF prepared the EA to determine if the alternatives could have a significant impact on the quality of the human environment. Specifically, WS and the ODAFF 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 feral swine, and 5) clearly communicate to the public the analysis of individual and cumulative impacts.

NEED FOR ACTION

Damage caused by feral swine occurs primarily from the consumption of resources and the destruction of habitat from their rooting and wallowing behavior. Feral swine can also pose threats to human safety and property from airplanes and vehicles striking feral swine. Estimates have placed the agricultural and environmental damage caused by feral swine from $800 million per year (Pimentel et al. 2005) to $1.5 billion per year (Pimentel 2007) in the United States. The feral swine population has been increasing and expanding in the State. Subsequently, the damage occurring in the State associated with feral swine has also increased (Stevens 2010).

In 2008, to address increasing feral swine populations within the State and the damages associated with feral swine, the Oklahoma legislature passed the Feral Swine Control Act (see Title 2, Chapter 1, Article 6, Section 6-602 of the Oklahoma Statutes). The purpose of the Feral Swine Control Act (see Section 6-602) is to "*...to provide aggressive measures to reduce the number of feral swine in Oklahoma*". The need for action arises from requests for assistance received by WS and the ODAFF to reduce and prevent damage occurring to agricultural resources, natural resources, property, and threats to human safety associated with feral swine. As part of disease surveillance and monitoring programs, WS and the ODAFF could also participate in disease sampling.

SCOPE OF ANALYSES IN THE EA

The EA evaluates the need for action to manage damage associated with feral swine, the potential issues associated with managing damage caused by feral swine, and the environmental consequences of conducting different alternatives to meet the need for action while addressing the identified issues. The EA evaluates meeting the need for action under three 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 WS and the ODAFF to manage or prevent damage associated with feral swine. The

[1] Feral swine are also known as "*wild pigs*", "*wild boars*", and "*feral hogs*".

standard WS Decision Model (Slate et al. 1992) would be the site-specific procedure for individual actions conducted by WS (see WS Directive 2.201).

Initially, WS and the ODAFF developed the issues related to managing damage associated with feral swine in consultation with the Oklahoma Department of Wildlife Conservation (ODWC). Through the scoping process, WS and the ODAFF defined the issues and identified the preliminary alternatives. As part of the scoping process, WS and the ODAFF made the EA available to the public for review and comment by a legal notice published daily in *The Daily Oklahoman* newspaper from June 16, 2014 through June 18, 2014. The WS program also published a notice of availability on the APHIS website beginning on June 6, 2014 announcing the EA was available for public review and comment. WS also sent a notice of availability directly to agencies, organizations, and individuals with probable interest in feral swine damage management in the State. The public involvement process ended on July 18, 2014.

WS and the ODAFF received four comment letters related to the public comment period. The comment letters were supportive of the efforts of WS and the ODAFF to manage the damage that feral swine cause in the State. Those commenters supported the implementation of Alternative 3. Commenters also expressed a desire to eradicate feral swine and emphasized the ODWC statewide population objective for feral swine is zero. One commenter supported the efforts of WS and the ODAFF in attempting to avoid the use of certain methods during the hunting season that could limit the ability of hunters to harvest other wildlife species, such as not conducting aerial operations during peak deer hunting periods. Several commenters expressed a desire for WS and the ODAFF to use only lethal methods, which was an alternative WS and the ODAFF considered but did not analyze in detail for the reasons discussed in Section 3.2 of the EA.

RELATIONSHIP OF THE EA TO OTHER ENVIRONMENTAL DOCUMENTS

The APHIS and cooperating agencies are in the process of preparing a programmatic EIS to address feral swine damage management in the United States, American Samoa, Mariana Islands, United States Virgin Islands, Guam, and Puerto Rico. When the EIS is completed, WS and the ODAFF would review this EA for consistency with the material in the EIS and Record of Decision and supplement this EA, if needed, pursuant to the requirements of the NEPA, and the NEPA implementing regulations of the USDA and the APHIS.

WS and the ODAFF have previously developed an EA that analyzed the need for action to manage damage associated with feral swine. Since the current EA re-evaluated activities conducted under the previous EA to address the new need for action associated with feral swine and the associated affected environment, the analysis in the EA and the outcome of this Decision will supersede the previous EA that addressed feral swine.

AUTHORITY AND COMPLIANCE

WS 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). Management of most native wildlife in the State is the responsibility of the ODWC. As the agency with authority for the management of wildlife, WS and the ODAFF consulted with the ODWC during the development of the EA. The ODWC provided input to ensure an interdisciplinary approach according to the National Environmental Policy Act (NEPA) and agency mandates, policies, and regulations.

The EA and this Decision ensures the actions of WS comply with the NEPA, with the Council on Environmental Quality guidelines (40 CFR 1500), and with the APHIS' NEPA implementing regulations

(7 CFR 372). WS 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 WS and the ODAFF to make are:

- Should WS and the ODAFF continue to conduct damage management to alleviate feral swine damage
- Should WS and the ODAFF conduct disease surveillance and monitoring in feral swine populations
- Should WS and the ODAFF continue to implement an integrated methods strategy
- If not, should WS and the ODAFF 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

In general, feral swine prefer moist bottomlands or riparian areas along streams and rivers, along with other areas associated with aquatic habitats (West et al. 2009, Stevens 2010, Hamrick et al. 2011), but are capable of utilizing a variety of habitats in the State. Historically, the distribution of feral swine in the State was likely limited to the floodplains of the major river systems within the State. The earliest records of feral swine in Oklahoma occurred before 1970 from the south-central and southeastern part of the State (Stevens 2010). Prior to 1970, the feral swine distribution in the State was limited to 12 counties. In 2007, feral swine were found in 74 of the 77 counties within the State, with their general distribution continuing to resemble the historical range of swine along the major river systems throughout the State, especially in the northern and western portion of the State (Stevens 2010). Anecdotal evidence suggests that feral swine currently occur in all the counties of the State (Stevens 2010, Wild Hog Working Group 2012). Based on survey responses and density estimates, Stevens (2010) estimated the statewide feral swine population to be 500,000 feral swine or less.

However, WS and the ODAFF would only provide assistance when requested by a landowner or manager and only on properties where the cooperating entity signed a MOU, work initiation document, or another comparable document. Upon receiving a request for assistance, WS and the ODAFF could conduct activities to reduce feral swine damage or threats on federal, state, tribal, municipal, and private properties in Oklahoma. Areas where damage or threats of damage could occur include, but would not be limited to agricultural fields, orchards, farmyards, ranches, livestock operations, aquaculture facilities, industrial sites, natural areas, government properties and facilities, private properties, corporate properties, schools, parks, woodlots, recreation areas, communally-owned homeowner/property owner association properties, wildlife refuges, levees, dikes, and wildlife management areas. The area would also include airports and military airbases where feral swine were a threat to human safety and to property; areas where feral swine were negatively affecting wildlife, including T&E species; and public property where feral swine were negatively affecting historic structures, cultural landscapes, and natural resources.

ISSUES ASSOCIATED WITH FERAL SWINE DAMAGE MANAGEMENT ACTIVITIES

WS and the ODAFF defined the issues related to managing damage associated with feral swine in Oklahoma and identified preliminary alternatives. WS and the ODAFF 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. WS and the ODAFF 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 Feral Swine Populations
- Issue 2 - Effects on Non-target Wildlife Species Populations, Including T&E Species
- Issue 3 - Effects of Damage Management Methods on Human Health and Safety
- Issue 4 - Humaneness and Animal Welfare Concerns of Methods
- Issue 5 - Effectiveness of Feral Swine Damage Management Methods

ISSUES CONSIDERED BUT NOT ANALYZED IN DETAIL WITH RATIONALE

In addition to those issues analyzed in detail, WS and the ODAFF identified several issues during the development of the EA but WS and the ODAFF 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

WS and the ODAFF developed the following three 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 – No Feral Swine Damage Management Conducted by WS

Under the no involvement alternative, the WS program would have no involvement with any aspect of managing damage caused by feral swine in Oklahoma. The WS program would refer all requests for assistance to the ODAFF State Wildlife Services Division and/or other entities. The ODAFF State Wildlife Services Division and/or other entities could continue to provide assistance as described in Alternative 2 or Alternative 3. Most of the methods described in Appendix B of the EA would be available under this alternative. One exception would be the availability of snares, which are a method restricted to use by WS or State Wildlife Services only. Under this alternative, snares would not be available for use by any non-WS program. Immobilizing drugs and euthanasia chemicals would have limited availability to manage damage caused by feral swine under this alternative. 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 2 – Feral Swine Damage Management by WS through Technical Assistance Only

Under the technical assistance only alternative, the WS program would address every request for assistance with only technical assistance. 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. WS could provide technical assistance through personal or telephone consultations and through site visits. Under this alternative, those people experiencing damage would have the burden of resolving threats or damage associated with feral swine or seeking other entities to provide direct operational assistance. Those people could employ methods recommended by WS, could employ other methods, could seek further assistance from other entities, or could take no further action. The ODAFF State Wildlife Services Division and/or other entities could

continue to provide assistance as described in Alternative 3. WS could also refer people requesting assistance to the ODAFF State Wildlife Services Division and/or other entities.

Similar to Alternative 1, methods described in Appendix B would be available to those people experiencing damage or threats associated with feral swine in the State except snares, immobilizing drugs, and euthanasia chemicals. Snares would not be available for use by any entity under this alternative. 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 3 - Continuing the Current Integrated Approach to Managing Feral Swine Damage (Proposed Action/No Action)

The proposed action/no action alternative would allow the WS program to continue to provide direct operational assistance and technical assistance in cooperation with the ODAFF. Assistance would involve recommending and/or employing an integrated damage management approach using available methods, as appropriate, to reduce damage associated with feral swine in the State. Under this alternative, WS and the ODAFF 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. WS 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, WS 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 2.

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

ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL

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

STANDARD OPERATING PROCEDURES FOR FERAL SWINE DAMAGE MANAGEMENT

WS and the ODAFF use many standard operating procedures that improve the safety, selectivity, and efficacy of activities to manage damage associated with feral swine. Chapter 3 of the EA discusses the standard operating procedures. WS and the ODAFF would incorporate those standard operating procedures into activities conducted if the decision-maker selected the proposed action alternative (Alternative 3) and when applicable, under the technical assistance alternative (Alternative 2), if selected. If the decision-maker selected the no involvement by the WS program alternative (Alternative 1), the lack of assistance by the WS program would preclude the employment or recommendation of those standard operating procedures addressed in the EA.

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 proposed action/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 WS, the ODAFF, and the ODWC. The analyses in Chapter 4 of the EA indicated the potential impacts to the quality of the human environment would be similar across the alternatives.

The following resource values in Oklahoma 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 Feral Swine Populations

Under the proposed action, WS and the ODAFF could incorporate non-lethal and lethal methods described in Appendix B of the EA in an integrated approach in which WS and the ODAFF could employ all or a combination of methods to resolve a request for assistance. WS and the ODAFF could recommend and operationally employ both non-lethal and lethal methods, as governed by federal, state, and local laws and regulations under the proposed action. Similarly, WS and the ODAFF could recommend the use of non-lethal and/or lethal methods under Alternative 2; however, the federal WS program would not provide direct operational assistance.

WS and the ODAFF could use non-lethal methods available under the alternatives to exclude, harass, or disperse feral swine from areas where damage or threats were occurring, which could reduce the presence of feral swine at the site and potentially the immediate area around the site where the program employed non-lethal methods. In addition, WS and the ODAFF could use non-lethal methods to capture feral swine. WS and the ODAFF would give non-lethal methods preference when addressing requests for assistance under Alternative 2 and Alternative 3. However, WS and the ODAFF would not necessarily employ non-lethal methods to resolve every request for assistance if deemed inappropriate using the WS Decision Model, especially in situations where the requesting entity had already attempted to resolve the damage or threats of damage using non-lethal methods. When effective, non-lethal methods could disperse feral swine from the area resulting in a reduction in the presence of those swine at the site where WS and the ODAFF employed those methods. 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. WS and the ODAFF 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.

When employed under the alternatives, WS and the ODAFF could use lethal methods to remove those animals that WS and the ODAFF have identified as causing damage or posing a threat to human safety. The use of lethal methods could result in local reductions of feral swine in the area where damage or threats were occurring. Under the proposed action alternative, people could request direct operational assistance from WS and the ODAFF where WS and the ODAFF employ lethal methods to remove feral

swine. The number of individual feral swine WS and the ODAFF removes from the population annually using lethal methods would be dependent on the number of requests for assistance received, the number of feral swine involved with the associated damage or threat, and the efficacy of methods employed. WS and the ODAFF based the level of estimated annual lethal removal under the proposed action alternative on previous activities that WS and the ODAFF conducted to address requests for assistance. In addition, WS and the ODAFF based the estimated annual lethal removal level on additional efforts of WS and the ODAFF that could occur to address requests for assistance.

The feral swine that WS and the ODAFF remove under the proposed action other entities could remove in the absence of direct involvement by WS under the other alternatives. There is currently no closed season for feral swine in the State; therefore, any entity could lethally remove feral swine throughout the year. Therefore, direct involvement by WS and/or the ODAFF does not preclude the lethal removal of feral swine by those people experiencing damage or threats or those people seeking assistance with removal from another entity. The involvement by the ODAFF and/or the WS program in removing those swine under the proposed action would not be additive to the number of swine that could be removed by other entities in the absence of involvement by the WS program. The number of feral swine removed annually would likely be similar across the alternatives, since the removal of feral swine could occur even if the WS program was not directly involved with providing assistance under Alternative 1 and Alternative 2. Those activities proposed, including the proposed removal of feral swine by WS and the ODAFF under Alternative 3, would not be additive to the number of feral swine that could be removed by other entities under the other alternatives despite the lack of involvement by the WS program.

In addition, most non-lethal and lethal methods available for resolving damage or threats associated with feral swine would be available under any of the alternatives. Snares would not be available, or limited, for use under Alternative 1 and Alternative 2. Immobilizing drugs and euthanasia chemicals would have limited availability under all of the alternatives. Based on the evaluation in the EA, the availability of those methods under the proposed action alternative would not pose significant environmental risks when used by trained personnel and in accordance with their use guidelines.

Stevens (2010) estimated the statewide population of feral swine in Oklahoma to be 500,000 swine or less. When responding to requests for assistance, the activities of WS and the ODAFF could result in the lethal removal of up to 10,000 feral swine in the State. WS and the ODAFF based the anticipated annual removal of feral swine on previous requests for assistance and the likelihood that the statewide population of feral swine will continue to increase in Oklahoma. If WS and the ODAFF lethally removed 10,000 feral swine annually and the population remained at least stable in the State, the level of removal by WS and the ODAFF would represent 2.0% of a stable population estimated at 500,000 swine. The total number of feral swine harvested in the State to alleviate damage and during other hunting activities is not currently known.

Timmons et al. (2012) developed a model that determined an annual harvest of 66% of the population was needed to hold the feral swine population stable in Texas. In another example, the South Carolina Wild Hog Task Force (2012) estimated that 50 to 75% of the statewide feral swine population in South Carolina would have to be removed annually to stabilize or reduce the population in that State. Based on recent findings by Stevens (2010) and the Wild Hog Working Group (2012) and based on the Feral Swine Control Act passed in 2008, current cumulative harvest levels in the State have not been sufficient to reduce feral swine populations in the State.

Based on the findings of the South Carolina Wild Hog Task Force (2012) and Timmons et al. (2012), the cumulative harvest of feral swine would likely not reach a magnitude that would cause a decline in the statewide feral swine population. Although the actual cumulative harvest of feral swine is unknown in the State, the combined harvest is not likely to reach a level where statewide population declines would

occur based on the reproductive potential of swine. Activities conducted by WS and the ODAFF under the proposed action alternative would occur within the goals and strategies outlined for the statewide feral swine population by other agencies. Maintaining a local and/or statewide feral swine population at the lowest level possible, including extirpation, could be the goal of those agencies.

Any removal of feral swine by WS would also occur pursuant to Executive Order 13112, which requires federal agencies, to the extent practical and permitted by law, reduce invasion of exotic species and the associated damages. The National Invasive Species Council specifically lists feral swine as an invasive species pursuant to Executive Order 13112. In addition, Lowe et al. (2000) ranked feral swine as one of the 100 worst invasive species in the world.

Issue 2 - Effects on Non-target Wildlife 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 WS and the ODAFF 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 WS alternative, the WS program would not provide assistance with any aspect of managing damage associated with feral swine; therefore, no direct impacts to non-targets would occur from WS. Under the technical assistance only alternative, 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 feral swine damage or threats. However, the ODAFF could continue to provide assistance despite no involvement by the WS program. Similar to the no involvement by the WS program alternative, under the technical assistance alternative, 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 did not implement any of the recommended actions and took no further action, the potential impacts to non-targets would be lower than proposed action. 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 proposed action. Methods or techniques used inappropriately would likely increase risks to non-targets. When employing direct operational assistance under the proposed action alternative, the WS program and the ODAFF could employ methods and use techniques that would avoid non-target removal as described in Chapter 3 of the EA under the standard operating procedures.

WS reviewed those threatened and endangered species listed in the State during the development of the EA. The WS program has consulted and would continue to consult with the United States Fish and Wildlife Service to evaluate activities to resolve feral swine 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 available would be similar across the alternatives since those methods would be available under all the alternatives. However, the expertise of WS and the ODAFF in using those methods available likely would reduce threats to human safety since employees of WS and the ODAFF would be trained and knowledgeable in the use of those methods. If WS' employees or employees of the ODAFF used 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 snares, immobilizing drugs, and euthanasia chemicals under the proposed action alternative would not increase risks to human safety from the use of those methods.

Although risks do occur from the use of snares, immobilizing drugs, and euthanasia chemicals, when WS and the ODAFF use 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 2011 through FY 2013, no adverse effects to human safety by WS and the ODAFF 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 - 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 have limited availability under the alternatives, while snares would either be limited or not available under Alternative 1 and Alternative 2. Under the proposed action alternative, WS and the ODAFF would consider method humaneness when conducting damage management activities and WS and the ODAFF 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 feral swine behavior, those persons could employ those methods inhumanely. A lack of understanding of the behavior of feral swine or improperly identifying the damage caused by feral swine 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. Despite the lack of involvement by the WS program under Alternative 1 and WS' limited involvement under Alternative 2, 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 feral swine.

Issue 5 - Effectiveness of Feral Swine Damage Management Methods

The methods available to those people experiencing damage would be similar across the alternatives analyzed in detail. The only methods that would have limited availability to other entities under all the alternatives analyzed in detail would be the use of immobilizing drugs and euthanasia chemicals, while snares would not be available under Alternative 1 and Alternative 2. Since most methods available for resolving feral swine damage would be available to those people experiencing damage or threats under all the alternatives, the effectiveness of those methods when used as intended would be similar amongst the alternatives. A common issue raised is that the use of lethal methods would be ineffective because additional feral swine would likely return to the area, either after removal occurs or through an increase in reproduction, which gives the impression of creating a financial incentive to continue the use of only lethal methods. This assumes feral swine only return to an area where damage was occurring if an entity used lethal methods. However, the use of non-lethal methods is also often temporary, which could result in feral swine returning to an area where damage was occurring once those methods were no longer used or feral swine become habituated to those methods. The common factor when employing any method is that feral swine could return if suitable conditions continue to exist at the location where damage was occurring and feral swine densities were sufficient to occupy all available habitats.

Dispersing feral swine using non-lethal methods often requires repeated application to discourage them from an area, which increases costs, moves feral swine to other areas where they could cause damage, and would often be temporary if conditions attracting those feral swine to an area remain unchanged. Dispersing and the translocating of feral swine would move a problem from one area to another, which would require addressing damage caused by those swine at another location. The objective of WS and the ODAFF would be to respond to a request for assistance with the most effective methods and to provide

for the long-term solution to the problem using WS' Decision Model to adapt methods in an integrated approach to managing feral swine damage that is agreed upon by the cooperator.

As part of an integrated approach to managing feral swine damage, WS and the ODAFF would have the ability to adapt methods to damage situations to effectively reduce or prevent damage from occurring. Under the proposed integrated approach, WS and the ODAFF could employ all methods, individually or in combination, as deemed appropriate through WS' Decision Model to address requests for assistance. The objective of WS and the ODAFF when receiving a request for assistance under the proposed action would be to reduce damage and threats to human health and safety or to prevent damage from occurring using an integrated approach to managing feral swine damage. Therefore, under the proposed action, WS and the ODAFF would employ methods adaptively to achieve that objective.

CUMULATIVE IMPACTS OF THE PROPOSED ACTION

No significant cumulative environmental impacts were identified from any of the three alternatives, including the proposed action. Minimal risks to public safety were identified when activities would be provided and expected by requesting individuals under Alternative 2 and Alternative 3 since only trained and experienced personnel of WS and the ODAFF would conduct and/or recommend damage management activities. There would be a slight increased risk to public safety when persons who reject assistance and recommendations conduct their own activities under Alternative 2, and when no assistance was provided under Alternative 1. However, under all of the alternatives, those risks would not be to the point that the effects would be significant. The analysis in the EA indicates that an integrated approach to managing damage and threats caused by feral swine 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 3) 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 3 (proposed action/no action) and applying the associated standard operating procedures discussed in Chapter 3 of the EA. Alternative 3 would successfully address feral swine damage management 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 3 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 3 would present the greatest chance of maximizing net benefits while minimizing adverse effects to public health and

safety. Alternative 3 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/no action alternative (Alternative 3) 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 3) 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 feral swine, as conducted by WS and the ODAFF in Oklahoma, 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/no 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 feral swine, this action is not controversial in terms of size, nature, or effect. Based on consultations with the ODWC, 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 State.

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 State of Oklahoma.

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. WS has consulted and would continue to consult with the United States Fish and Wildlife Service to evaluate activities to resolve feral swine 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) WS and the ODAFF 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, WS and the ODAFF would continue to provide effective and practical technical assistance and direct management techniques that reduce damage and threats of damage.

Michael J Bodenchuk 8/19/14

Michael Bodenchuk, Acting Director-Western Region Date
USDA/APHIS/WS
Fort Collins, Colorado

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