

DECISION

ENVIRONMENTAL ASSESSMENT: MAMMAL DAMAGE MANAGEMENT IN MISSISSIPPI

PURPOSE

The United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Wildlife Services (WS) program, in cooperation with the Tennessee Valley Authority (TVA), has prepared an Environmental Assessment (EA) to analyze the potential environmental and social impacts to the quality of the human environment from resolving damage, including conflicts and threats, to agricultural resources, property, natural resources, and human safety associated with mammals (USDA 2012). The EA documents the need for damage management in the State and assesses potential impacts on the human environment of three alternatives to address that need. The proposed action in the EA would continue an integrated methods approach to address the need to manage damage and threats associated with mammals.

Damage and threats of damage associated with the following mammal species were addressed in the EA: nine-banded armadillos (*Dasypus novemcinctus*), Virginia opossum (*Didelphis virginiana*), little brown bat (*Myotis lucifugus*), Southeastern myotis (*Myotis austroriparius*), Brazilian free-tailed bats (*Tadarida brasiliensis*), silver-haired bats (*Lasionycteris noctivagans*), Eastern pipistrels (*Pipistrellus subflavus*), big brown bats (*Eptesicus fuscus*), evening bats (*Nycticeius humeralis*), Rafinesque's big-eared bats (*Plecotus rafinesquei*), Eastern cottontail rabbits (*Sylvilagus floridanus*), swamp rabbits (*Sylvilagus aquaticus*), black bears (*Ursus americanus*), raccoons (*Procyon lotor*), river otters (*Lutra canadensis*), striped skunks (*Mephitis mephitis*), coyotes (*Canis latrans*), gray fox (*Urocyon cinereoargenteus*), red fox (*Vulpes vulpes*), bobcats (*Felis rufus*), woodchucks (*Marmota monax*), Southern flying squirrels (*Glaucomys volans*), gray squirrels (*Sciurus carolinensis*), fox squirrels (*Sciurus niger*), feral swine (*Sus scrofa*), white-tailed deer (*Odocoileus virginianus*), feral cats (*Felis domesticus*), and feral dogs (*Canis familiaris*).

The EA evaluated the issues and alternatives associated with WS' potential participation in managing damage and threats caused by mammals in the State, including properties owned or managed by the TVA. The EA was prepared by WS and the TVA to determine if the alternatives could have a significant impact on the quality of the human environment. Specifically, the EA was prepared 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 mammals, 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 WS to reduce and prevent damage associated with mammals from occurring to four major categories: agricultural resources, natural resources, property, and threats to human safety. WS would only conduct mammal damage management after receiving a request for assistance. Before initiating activities, a Memorandum of Understanding, cooperative service agreement, or other comparable document would be signed between WS and the entity requesting assistance, which would list all the methods the property owner or manager would allow to be used on property they own and/or manage. WS may also be requested to participate in disease surveillance and monitoring in the event of a disease outbreak or potential outbreak in a mammal population. The EA also addressed the need for action associated with mammal damage occurring on properties owned or managed by the TVA.

SCOPE OF ANALYSES IN THE EA

The EA evaluates the need for action to manage damage associated with mammals, the potential issues associated with mammal damage management, 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. The methods available for use or recommendation under each of the alternatives evaluated were provided in Appendix B of the EA. The actions evaluated were the use of those methods available under the alternatives and the employment of those methods by WS to manage or prevent damage and threats associated with mammals. The 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).

Issues related to managing damage caused by mammals in Mississippi were initially developed by WS and the TVA in consultation with the Mississippi Department of Wildlife, Fisheries, and Parks (MDWFP). Issues were defined and preliminary alternatives were identified through the scoping process. As part of the scoping process, the EA was made available to the public for review and comment by a legal notice published daily in the *Clarion Ledger* newspaper from October 21, 2012 through October 23, 2012. A notice of availability and the EA were also made available for public review and comment on the APHIS website at http://www.aphis.usda.gov/wildlife_damage/nepa.shtml beginning on October 18, 2012. A letter of availability was also mailed directly to agencies, organizations, and individuals with probable interest in mammal damage management in the State. The public involvement process ended on November 30, 2012.

WS received one comment letter related to the public comment period. The comment letter received during the public involvement process was reviewed for substantive issues and alternatives, which were considered in developing the Decision for the EA. A summary of the comments received and responses to the comments are provided in Appendix A of this Decision. Based upon those comments, minor editorial changes were incorporated into the EA that are discussed in the responses to the comments in Appendix A. Those minor changes enhanced the understanding of the EA, but did not change the analysis provided in the EA.

RELATIONSHIP OF THE EA TO OTHER ENVIRONMENTAL DOCUMENTS

WS has developed a programmatic Final Environmental Impact Statement (FEIS) that addressed the need for wildlife damage management (USDA 1997). The FEIS contains a detailed discussion of the potential impacts to the human environment from methods and techniques employed by WS, including methods used to manage damage associated with mammals.

WS has 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 2005a). In addition, the WS program in Mississippi has previously developed an EA to evaluate managing damage associated with aquatic rodents in the State (USDA 2003). The TVA has also prepared a Natural Resources Plan (TVA 2011a), as well as, environmental impact statement (EIS) to assess the Natural Resources Plan (TVA 2011b). The MDWFP has also developed a black bear conservation and management plan (Young 2006).

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). The TVA is a federal corporation created by an Act of Congress in May 18, 1933 [48 Stat. 58-59, 16 USC Sec. 831, as amended] that provides electricity to 9 million people, businesses and industries, and manages 293,000 acres of public land and 11,000 miles of reservoir shoreline in the Tennessee Valley Region. The TVA also provides flood control, navigation, land management, and recreation for the Tennessee River system. Management of mammal species in the State is the responsibility of the MDWFP. As the agency with authority for the management of mammals, the MDWFP was consulted during the development of the EA and 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 WS' actions comply with the NEPA, with the Council on Environmental Quality guidelines (40 CFR 1500), and with APHIS' NEPA implementing regulations (7 CFR 372). All activities, including disposal requirements, would be conducted consistent with: 1) the Endangered Species Act of 1973, 2) the Federal Insecticide, Fungicide, and Rodenticide Act, 3) applicable Executive Orders, and 6) applicable Federal, State, and local laws, regulations and policies, including WS' Directives.

DECISIONS TO BE MADE

Based on the scope of the EA, the decisions to be made are: 1) should WS, in cooperation with the TVA, conduct mammal damage management to alleviate damage to agriculture, property, natural resources, and threats to human safety, 2) should WS conduct disease surveillance and monitoring in mammal populations when requested by the MDWFP and other agencies, 3) should WS, in cooperation with the TVA, implement an integrated wildlife damage management strategy, including technical assistance and direct operational assistance, to meet the need for mammal damage management in Mississippi, 4) if not, should WS attempt to implement one of the alternatives to an integrated damage management strategy as described in the EA, and 5) would the proposed action or the other alternatives result in adverse impacts to the environment requiring the preparation of an EIS.

AFFECTED ENVIRONMENT

Mammal damage or threats of damage can occur statewide in Mississippi wherever those mammal species occur. However, mammal damage management would only be conducted by WS when requested by a landowner or manager and only on properties where a cooperative service agreement or other comparable document was signed between WS and a cooperating entity. Upon receiving a request for assistance, activities could be conducted on federal, State, tribal, municipal, and private properties in Mississippi. 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 mammals cause damage to structures, dikes, ditches, ponds, and levees; public and private properties in rural/urban/suburban areas where mammals 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 mammals are a threat to human safety and to property; areas where mammals negatively affect wildlife, including T&E species; and public property where mammals are negatively affecting historic structures, cultural landscapes, and natural resources.

In addition, activities could occur at facilities owned or managed by the TVA when those mammal species addressed in the EA cause damage or pose threats of damage, including the 48 TVA power generation facilities, 261 TVA electrical substations, or along any of the 10,200 circuit miles of

transmission lines and right-of-way easements owned by the TVA in Mississippi. Mammal damage management activities could also be conducted on recreational, natural, or cultural lands owned or managed by the TVA, including 21 reservoirs with more than 7,500 miles of shoreline, and 175,000 acres of shore-land and reservoir property and various other land rights along and over most of the Tennessee River and its tributaries.

ISSUES ASSOCIATED WITH MAMMAL DAMAGE MANAGEMENT ACTIVITIES

Issues related to mammal damage management in Mississippi were defined and preliminary alternatives were identified by WS and the TVA and through consultation with the MDWFP. The EA was also made available to the public for review and comment through notices published in local media and through direct notification of interested parties.

Chapter 2 of the EA describes in detail the issues considered and evaluated in the EA (USDA 2012). The following issues were identified 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 Mammal 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 - Effects on the Aesthetic Values of Mammals
- Issue 5 - Humaneness and Animal Welfare Concerns of Methods
- Issue 6 - Effects of Mammal Damage Management Activities on the Regulated Harvest of Mammals

ISSUES CONSIDERED BUT NOT ANALYZED IN DETAIL WITH RATIONALE

In addition to those issues analyzed in detail, several issues were identified during the development of the EA but were not considered in detail. The rationale for the decision not to analyze those issues in detail is discussed in the EA. Those issues not analyzed in detail were:

- Appropriateness of Preparing an EA (Instead of an EIS) For Such a Large Area
- WS' Impact on Biodiversity
- A Loss Threshold Should Be Established Before Allowing Lethal Methods
- Mammal Damage Management Should Not Occur at Taxpayer Expense
- Cost Effectiveness of Management Methods
- Effectiveness of Mammal Damage Management Methods
- Mammal Damage Should Be Managed By Private Nuisance Wildlife Control Agents
- Effects from the Use of Lead Ammunition in Firearms
- A Site Specific Analysis Should be Made for Every Location Where Mammal Damage Management Would Occur

DESCRIPTION OF THE ALTERNATIVES

The following three alternatives were developed to respond to the issues identified in Chapter 2 of the EA (USDA 2012). A detailed discussion of the effects of the alternatives on the issues is described in the EA under Chapter 4; below is a summary of the alternatives.

Alternative 1 - Continue the Current Adaptive Integrated Mammal Damage Management Program (No Action/Proposed Action)

The proposed action would continue the current program of employing an integrated damage management approach using available methods, as appropriate, to reduce damage associated with mammals in the State. An integrated methods strategy would be recommended and used, encompassing 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. Non-lethal methods would be given preference in the formulation of each damage management strategy, and would be recommended or implemented when practical and effective before recommending or implementing lethal methods. However, non-lethal methods would not always be applied as a first response to each damage problem. The most appropriate response could 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 mammals in the State. Using the WS Decision model discussed in the EA, WS could employ methods singularly or in combination in an integrated approach to alleviate damage caused by mammals.

Alternative 2 – Mammal Damage Management by WS through Technical Assistance Only

Under the technical assistance only alternative, WS would address every request for assistance with technical assistance only. Technical assistance would provide those persons seeking assistance with information and recommendations on methods and techniques that those cooperators could implement without WS' direct involvement in the action. Technical assistance could be employed through personal or telephone consultations and through site visits. Under this alternative, the immediate burden of resolving threats or damage associated with mammals would be placed on those persons experiencing damage. Those persons could employ those methods recommended by WS, could employ other methods, could seek further assistance from other entities, or could take no further action.

Similar to Alternative 1, those methods described in Appendix B would be available to those persons experiencing damage or threats associated with mammals in the State except for the use of GonaconTM, immobilizing drugs, and euthanasia chemicals. GonaconTM would only be available to the MDWFP¹, while immobilizing drugs and euthanasia drugs would only be available to the MDWFP or appropriately licensed veterinarians. All other methods described in Appendix B of the EA would be available to those persons experiencing damage.

Alternative 3 – No Mammal Damage Management Conducted by WS

Under the no involvement alternative, WS would not be involved with any aspect of managing damage caused by mammals in Mississippi. All requests for assistance received by WS would be referred to the MDWFP and/or other entities. Most of the methods described in Appendix B of the EA would be available under this alternative. The only methods that would not be available to manage damage caused by mammals under this alternative would be GonaconTM, immobilizing drugs, and euthanasia chemicals. GonaconTM is not registered for use in Mississippi and if registered would only be available for use by the MDWFP under this alternative. Immobilizing drugs and euthanasia chemicals would only be available for use by the MDWFP or appropriately licensed veterinarians.

ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL WITH RATIONALE

¹GonaconTM is not currently registered for use in the State.

Additional alternatives were also evaluated but were not considered in detail in the EA with rationale provided. The alternatives analyzed but not in detail included:

- Non-lethal Methods Implemented Before Lethal Methods
- Use of Non-lethal Methods Only by WS
- Use of Lethal Methods Only by WS
- Trap and Translocate Mammals Only
- Reducing Damage by Managing Mammal Populations through the Use of Reproductive Inhibitors
- Compensation for Mammal Damage
- Short Term Eradication and Long Term Population Suppression
- Bounties
- Trap-Neuter-Release Program for Feral and Free-ranging Cats and/or Dogs

STANDARD OPERATING PROCEDURES FOR MAMMAL DAMAGE MANAGEMENT

The current WS program uses many standard operating procedures. Standard operating procedures were discussed in Chapter 3 of the EA (USDA 2012). Those standard operating procedures would be incorporated into activities conducted by WS under the proposed action alternative (Alternative 1) and when applicable, under the technical assistance alternative (Alternative 2). If the no involvement by WS alternative (Alternative 3) were selected, the lack of assistance by WS would preclude the employment or recommendation of those standard operating procedures addressed in the EA.

ENVIRONMENTAL CONSEQUENCES FOR ISSUES ANALYZED IN DETAIL

The EA analyzed the environmental consequences of each alternative as that alternative related to the issues identified to provide information needed for making informed decisions in selecting the appropriate alternative to address the need for action. The following resource values in Mississippi 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 T&E 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.

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 analyses also take into consideration mandates, directives, and the procedures of WS, TVA, and the MDWFP. 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.

Issue 1 - Effects of Damage Management Activities on Target Mammal Populations

Under the proposed action, WS could incorporate non-lethal and lethal methods described in Appendix B of the EA in an integrated approach in which all or a combination of methods could be employed to resolve a request for assistance. WS 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 could recommend the use of non-lethal and/or lethal methods under Alternative 2; however, WS would not provide direct operational assistance.

Non-lethal methods could be used to exclude, harass, and disperse target wildlife from areas where damage or threats were occurring. Non-lethal methods available under the alternatives could disperse or otherwise make an area unattractive to mammals that were causing damage, which could reduce the presence of those species at the site and potentially the immediate area around the site where non-lethal methods were employed. Non-lethal methods would be given preference when addressing requests for assistance under Alternative 1 and Alternative 2. However, non-lethal methods would not necessarily be employed to resolve every request for assistance if deemed inappropriate by WS' personnel 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. Most non-lethal methods would be used to exclude, harass, and disperse target wildlife from areas where damage or threats were occurring. When effective, non-lethal methods would disperse mammals from the area resulting in a reduction in the presence of those mammals at the site where those methods were employed. Non-lethal methods are generally regarded as having minimal effects on overall populations of wildlife since those species would be unharmed. Non-lethal methods would not be employed over large geographical areas or applied at such intensity that essential resources (*e.g.*, food sources, habitat) would be unavailable for extended durations or over a wide geographical scope that long-term adverse effects would 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, lethal methods would often be employed to reinforce non-lethal methods and to remove those animals that have been identified as causing damage or posing a threat to human safety. The use of lethal methods could result in local reductions of animals in the area where damage or threats were occurring. Under the proposed action alternative, WS could be requested to provide direct operational assistance where WS employs lethal methods to remove target species. The number individuals of target species removed from the population annually by WS using lethal methods would be dependent on the number of requests for assistance received, the number of individuals involved with the associated damage or threat, and the efficacy of methods employed. The levels of estimated annual lethal take of target species addressed in the EA under the proposed action alternative were based on activities that were conducted to address previous requests for assistance. In addition, the estimated annual lethal take levels were based on receiving future requests for assistance and the efforts of WS to address those requests for assistance.

Mammals that could be taken by WS under the proposed action could be taken by those persons experiencing damage or threats in the absence of WS' direct involvement under the other alternatives since the take of mammals can occur when a permit has been issued by the MDWFP, when required. In addition, mammals could be lethally taken to alleviate damage or reduce threats during the regulated hunting and/or trapping seasons in the State. Since the lack of WS' direct involvement does not preclude the lethal take of mammals by those persons experiencing damage or threats, WS' involvement in the taking of those animals under the proposed action would not be additive to the number of animals that could be taken by other entities in the absence of WS' involvement. The number of mammals taken annually would likely be similar across the alternatives, since the take of mammals could occur even if WS was not directly involved with providing assistance under Alternative 2 and Alternative 3. Those activities proposed, including the proposed take of mammals, under Alternative 1 would not be additive to the number of animals that could be taken by other entities under the other alternatives despite the lack of WS' involvement.

In addition, most non-lethal and lethal methods available for resolving damage or threats associated with mammals would be available under any of the alternatives. GonaconTM, immobilizing drugs, and

euthanasia chemicals would be the only methods that would not be available under all of the alternatives. Based on the evaluation in the EA (USDA 2012), the availability of GonaconTM, immobilizing drugs, and euthanasia chemicals under the proposed action alternative would not pose significant environmental risks when used by trained WS personnel and in accordance with their use guidelines.

Based on those quantitative and qualitative parameters addressed in the EA, the proposed levels of take for each mammal species addressed under the proposed action alternative (Alternative 1) would be considered of low magnitude when compared to population trend data, population estimates, and/or harvest data. The number of mammals lethally taken annually under the alternatives would likely be similar since the take of mammals could occur despite no involvement by WS. WS does not have the authority to regulate the number of mammals taken annually by other entities.

In addition, based on the levels of take that have occurred previously by WS and by other entities, the cumulative take of levels addressed would also be of low magnitude when compared to those quantitative and qualitative parameters addressed in the EA. The permitting of take by the MDWFP would ensure that cumulative take levels would occur within allowable levels to maintain species' populations and meet population objectives for each species.

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 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.

The non-targets taken previously by WS are representative of non-targets that could be lethally taken by WS under the proposed action alternative. Although additional species of non-targets could be lethally taken by WS, take of individuals from any species is not likely to increase substantively above the number of non-targets taken annually by WS during previous damage management activities. In addition, many of the species lethally taken or live-captured from FY 2006 through FY 2011 are also considered target species in the EA and the level of take analyzed for each species under Issue 1 includes non-target take that could occur by WS.

Under the no involvement by WS alternative, WS would not be directly involved with any aspect of managing damage associated with mammals; therefore, no direct impacts to non-targets would occur from WS. Under the technical assistance only alternative, WS could provide information on the proper use of methods and provide demonstration on the use of methods but would not be directly involved with using methods to alleviate mammal damage or threats. Similar to the no WS involvement alternative, under the technical assistance alternative, if methods were applied as intended and with regard for non-target hazards by other entities, those methods would not result in the decline of non-target species' populations. If requestors were provided technical assistance but did not implement any of the recommended actions and took no further action, the potential impacts to non-targets would be lower compared to the 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 not implemented as recommended or used inappropriately would likely increase risks to non-targets. When employing direct operational assistance under the proposed action alternative, WS could employ methods and use techniques that would avoid non-target take as described in Chapter 3 of the EA under the standard operating procedures.

The ability to reduce damage and threats caused by mammals would be variable and would be based upon the skills and abilities of the person implementing damage management actions under Alternative 2 and

Alternative 3. If those methods available were applied as intended, risks to non-targets would be minimal to non-existent. If methods available were applied incorrectly or applied without knowledge of wildlife behavior, risks to non-target wildlife would be higher under any of the alternatives. If frustration from the lack of available assistance under Alternative 2 and Alternative 3 caused those persons experiencing mammal damage to use methods that were not legally available for use, risks to non-targets would be higher under those alternatives. People have resorted to the use of illegal methods to resolve wildlife damage that have resulted in the lethal take of non-target wildlife. Under the proposed action alternative, those persons could request direct operational assistance from WS to reduce damage and threats occurring, which would increase the likelihood that non-target species would be unaffected by damage management activities.

WS reviewed those T&E species listed in the State during the development of the EA (see Appendix C in the EA). WS determined that activities conducted pursuant to the proposed action would not likely adversely affect those species listed in the State by the United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Services nor their critical habitats. In addition, WS has determined that the proposed damage management program would not adversely affect any of the species listed by the Mississippi Museum of Natural Science in the State. The USFWS and the Mississippi Museum of Natural Science have concurred with WS' determination. The concurrence of the USFWS was based on WS following several recommendations that were addressed in the EA. WS would abide by those recommendations to ensure activities would not adversely affect T&E species in the State.

Issue 3 - Effects of Mammal Damage Management Activities 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 across the alternatives. However, the expertise of WS' employees in using those methods available likely would reduce threats to human safety since WS' employees would be trained and knowledgeable in the use of those methods. If methods were used incorrectly or without regard for human safety, risks to human safety would increase under any of the alternatives that those methods could be employed. The EA determined that the availability of Gonacon™, immobilizing drugs, and euthanasia chemicals under the proposed action alternative would not increase risks to human safety from the use of those methods under the proposed action alternative (USDA 2012). Although risks do occur from the use of Gonacon™, immobilizing drugs, and euthanasia chemicals, when those methods were used 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. No adverse effects to human safety occurred from WS' use of methods to alleviate mammal damage in the State from FY 2006 through FY 2011. The risks to human safety from the use of non-lethal and lethal methods, when used appropriately and by trained personnel, would be considered low.

Issue 4 - Effects of Mammal Damage Management Activities on the Socio-cultural Elements of the Human Environment

Mammals often provide aesthetic enjoyment to many people in the State through observations, photographing, and knowing they exist as part of the natural environment. Methods available that could be employed under each of the alternatives would result in the dispersal, exclusion, or removal of individuals or small groups of mammals to resolve damage and threats. Therefore, the use of methods often results in the removal of mammals from the area where damage was occurring or the dispersal of mammals from an area. Since methods available for use to manage damage would be similar across the alternatives, the use of those methods would have similar potential impacts on the aesthetics of mammals. However, the dispersal and/or lethal take of mammals under the alternatives, even under the proposed action alternative, would not reach a magnitude that would prevent the ability to view mammals outside

of the area where damage was occurring. The effects on the aesthetic values of mammals would therefore be similar across the alternatives and would be minimal.

Issue 5 - Humaneness and Animal Welfare Concerns of Methods

The issue of humaneness was also analyzed 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, GonaconTM, immobilizing drugs, and euthanasia chemicals would be the only methods that would not be available to all entities under the alternatives. The ability of WS to provide direct operational assistance under the proposed action alternative would ensure methods were employed by WS as humanely as possible. Under the other alternatives, methods could be used by other entities inhumanely if used inappropriately or without consideration of mammal behavior. However, the efficacy of methods employed by a cooperator would be based on the skill and knowledge of the requestor in resolving the threat to safety or damage situation despite WS' demonstration. A lack of understanding of the behavior of mammals or improperly identifying the damage caused by mammals along with inadequate knowledge and skill in using methodologies to resolve the damage or threat could lead to incidents with a greater probability of being perceived as inhumane under Alternative 2 and Alternative 3. Despite the lack of involvement by WS under Alternative 3 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 mammals.

Under Alternative 1, euthanasia of live-captured animals would follow those required by WS' directives (see WS Directive 2.505, WS Directive 2.430). Under Alternative 2, WS would recommend the use of euthanasia methods pursuant to WS Directive 2.505. However, the person requesting assistance would determine what methods to use to euthanize or kill a live-captured animal under Alternative 2. Under Alternative 3, euthanasia or killing of live-captured animals would also be determined by those persons employing methods to live-captured wildlife.

Issue 6 - Effects of Mammal Damage Management Activities on the Regulated Harvest of Mammals

Hunting and/or trapping seasons in the State exist for most of the mammal species addressed in the EA. Those species addressed in this EA that have established hunting and/or trapping seasons include Virginia opossum, raccoons, river otters, striped skunks, coyotes, gray fox, red fox, bobcats, gray squirrels, fox squirrels, and white-tailed deer. WS would have no impact on the ability to harvest those species during the annual hunting and/or trapping seasons under Alternative 2 and Alternative 3 since WS would not be directly involved with managing damage associated with those species. However, resource/property owners may remove mammals under permits issued by the MDWFP, when required, resulting in impacts similar to the proposed action alternative under Alternative 2 and Alternative 3. The recommendation of non-lethal methods could disperse or exclude mammals from areas under any of the alternatives, which could limit the ability of those persons interested to harvest mammals in the damage management area. However, the populations of mammals would be unaffected directly by WS under the technical assistance alternative (Alternative 2) and the no involvement alternative (Alternative 3). The MDWFP could continue to regulate mammal populations through adjustments in allowed take during the regulated harvest season and through permits to manage damage or threats of damage.

The magnitude of lethal take addressed in the proposed action would be low when compared to the mortality of those mammal species from all known sources. When WS' proposed take of mammals was included as part of the known mortality of mammals and compared to the known populations of those species, the impact on a species' population was below the level of removal required to lower population

levels. The MDWFP would determine the number of mammals taken annually through the issuance of permits, when required.

With oversight by the MDWFP, the number of mammals taken by WS would not limit the ability of those persons interested to harvest mammals during the regulated season. All take by WS would be reported to the MDWFP annually to ensure take by WS was incorporated into population management objectives established for mammal populations. Based on the limited take proposed by WS and the oversight by the MDWFP, WS' take annually would have no effect on the ability of those persons interested to harvest mammals during the regulated harvest season.

CUMULATIVE IMPACTS OF THE PROPOSED ACTION

No significant cumulative environmental impacts were identified from any of the three alternatives, including the proposed action. Under the proposed action, the lethal removal of mammals by WS would not have significant impacts on statewide mammal populations when known sources of mortality were considered. No risk to public safety was identified when activities were provided and expected by requesting individuals under Alternative 1 and Alternative 2 since only trained and experienced personnel 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 3. 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 mammals would not result in significant cumulative effects on the quality of the human environment.

DECISION AND RATIONALE

Based on the analyses in the EA of the alternatives developed to address those issues, including individual and cumulative impacts of those alternatives, the following decision has been reached:

Decision

I have carefully reviewed the EA prepared to meet the need for action. I find the proposed action alternative (Alternative 1) 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 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 EIS.

Based on the analyses in the EA, the need for action and the issues identified are best addressed by selecting Alternative 1 (proposed action/no action) and applying the associated standard operating procedures discussed in Chapter 3 of the EA. Alternative 1 successfully addresses (1) mammal damage management using a combination of the most effective methods and does not adversely impact the environment, property, human health and safety, target species, and/or non-target species, including T&E species; (2) it offers the greatest chance of maximizing effectiveness and benefits to resource owners and managers; (3) it presents the greatest chance of maximizing net benefits while minimizing adverse effects to public health and safety; and (4) it offers a balanced approach to the issues of humaneness and aesthetics when all facets of those issues are considered. Further analysis would be triggered if changes occur that broaden the scope of damage management activities in the State, 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 1) 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 1) 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 EIS should not be prepared. This determination is based on the following factors:

1. Mammal damage management, as conducted by WS in the State, is not regional or national in scope.
2. The proposed action would pose minimal risk to public health and safety. 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. There are no unique characteristics such as park lands, prime farm lands, wetlands, wild and scenic areas, or ecologically critical areas that would be significantly affected. WS' standard operating procedures and adherence to applicable laws and regulations would further ensure that WS' activities do not harm the environment.
4. The effects on the quality of the human environment are not highly controversial. Although there is some opposition to mammal damage management, this action is not highly controversial in terms of size, nature, or effect.
5. Based on the analysis documented 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.
7. No significant cumulative effects were identified through the assessment. The EA analyzed cumulative effects on target and non-target species populations and concluded that such impacts were not significant for this or other anticipated actions to be implemented or planned within the State of Mississippi.
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 determined that the proposed program would not adversely affect any federally listed T&E species currently listed in the State and the USFWS has concurred with WS' determination. In addition, WS has determined that the proposed activities would not adversely affect State-listed species.
10. The proposed action would comply with all applicable federal, State, and local laws.
11. No significant cumulative effects were identified by this assessment or other actions implemented or planned within the area.

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) mammal damage management would only be conducted by WS at the request of landowners/managers, 2) management actions would be consistent with applicable laws, regulations, policies and orders, and 3) no significant effects to the environment were identified in the analysis. As a part of this Decision, the WS program in Mississippi would continue to provide effective and practical technical assistance and direct management techniques that reduce damage and threats of damage.



Charles S. Brown, Director-Eastern Region
USDA/APHIS/WS
Raleigh, North Carolina

12/12/12

Date

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