

## DECISION

### ENVIRONMENTAL ASSESSMENT: MAMMAL DAMAGE MANAGEMENT IN ALABAMA

#### 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), have prepared an Environmental Assessment (EA) to evaluate alternative approaches to managing damage caused by several mammal species (USDA 2014). The EA addressed damage and threats of damage associated with the big brown bat (*Eptesicus fuscus*), black bear (*Ursus americanus*), bobcat (*Lynx rufus*), Brazilian free-tailed bat (*Tadarida brasiliensis*), cotton mouse (*Peromyscus gossypinus*), coyote (*Canis latrans*), deer mouse (*Peromyscus maniculatus*), eastern chipmunk (*Tamias striatus*), eastern cottontail (*Sylvilagus floridanus*), eastern harvest mouse (*Reithrodontomys humulis*), eastern mole (*Scalopus aquaticus*), evening bat (*Nycticeius humeralis*), feral cat (*Felis domesticus*), feral dog (*Canis familiaris*), feral swine (*Sus scrofa*), fox squirrel (*Sciurus niger*), gray fox (*Urocyon cinereoargenteus*), gray squirrel (*Sciurus carolinensis*), hispid cotton rat (*Sigmodon hispidus*), house mouse (*Mus musculus*), little brown myotis (*Myotis lucifugus*), meadow vole (*Microtus pennsylvanicus*), mink (*Neovison vison*), nine-banded armadillo (*Dasyus novemcinctus*), Norway rat (*Rattus norvegicus*), pine vole (*Microtus pinetorum*), prairie vole (*Microtus ochrogaster*), raccoon (*Procyon lotor*), Rafinesque's big-eared bat (*Corynorhinus rafinesquii*), red fox (*Vulpes vulpes*), rice rat (*Oryzomys palustris*), river otter (*Lontra canadensis*), roof rat (*Rattus rattus*), silver-haired bat (*Lasionycteris noctivagans*), southern flying squirrel (*Glaucomys volans*), striped skunk (*Mephitis mephitis*), tri-colored bat (*Perimyotis subflavus*), Virginia opossum (*Didelphis virginiana*), white-footed mouse (*Peromyscus leucopus*), white-tailed deer (*Odocoileus virginianus*), and woodchuck (*Marmota monax*).

The EA documents the need for damage management in Alabama and assesses potential impacts on the human environment of three alternatives to address that need. The proposed action alternative in the EA evaluates an adaptive methods approach to address the need to manage damage and threats associated with mammals, including those mammal species that cause damage or pose threats on property owned or managed by the TVA. 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. WS and the TVA prepared the EA to determine if the alternatives could have a significant impact on the quality of the human environment. Specifically, WS and the TVA 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 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 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, WS and the entity requesting assistance would sign a Memorandum of Understanding, Work Initiation Document, or another comparable document, which would list all the methods the property owner or manager would allow WS to use on property they own and/or manage. Other entities could also request WS 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 managing damage, 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 alternative approaches. Appendix B of the EA discusses the methods available for use or recommendation under each of the alternatives evaluated in detail. 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).

WS and the TVA, in consultation with the Alabama Department of Conservation and Natural Resources (ADCNR), initially developed issues related to managing damage caused by mammals in Alabama. WS, the TVA, and the ADCNR defined the issues and identified preliminary alternatives through the scoping process. As part of the scoping process, WS and the TVA made the EA available to the public for review and comment by a legal notice published daily in the *Montgomery Advertiser* newspaper from March 19, 2014 through March 21, 2014. WS and the TVA also posted a notice of availability on the APHIS website and made the EA available for public review and comment through the website notice beginning on March 12, 2014. WS also sent a notice of availability directly to agencies, organizations, and individuals with probable interest in mammal damage management in the State. The public involvement process ended on April 25, 2014. WS did not receive comments related to the public comment period.

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

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 (including Alabama) and gray fox and coyote rabies in Texas (USDA 2009). In addition, the WS program in Alabama has developed an EA to evaluate managing damage associated with aquatic rodents in the State (USDA 2002). The TVA has also prepared a Natural Resources Plan (TVA 2011a), as well as, an environmental impact statement (EIS) to assess the Natural Resources Plan (TVA 2011b).

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

## **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

ADCNR. Therefore, WS and the TVA consulted with the ADCNR during the development of the EA. The ADCNR provided input on the EA to ensure an interdisciplinary approach according to the National Environmental Policy Act and mandates, policies, and regulations of each agency.

The EA and this Decision ensure the actions of WS comply with the National Environmental Policy Act, with the Council on Environmental Quality guidelines (40 CFR 1500), and with the APHIS' National Environmental Policy Act implementing regulations (7 CFR 372). WS would conduct all activities, including disposal requirements, consistent with applicable federal, state, and local laws, regulations, and policies in accordance with WS Directive 2.210.

## **DECISIONS TO BE MADE**

Based on the scope of the EA, WS' decisions would be:

- Should WS, in cooperation with the TVA, conduct mammal damage management to alleviate damage when requested
- Should WS conduct disease surveillance and monitoring in mammal populations when requested
- Should WS, in cooperation with the TVA, implement an integrated methods approach, including technical assistance and direct operational assistance, to meet the need for action
- If not, should WS and/or the TVA attempt to implement one of the alternatives to an integrated methods strategy
- Would the proposed action or the other alternatives result in effects to the environment requiring the preparation of an Environmental Impact Statement

## **AFFECTED ENVIRONMENT**

Mammal damage or threats of damage could occur statewide in Alabama wherever those mammal species addressed in the EA occur. However, WS would only conduct mammal damage management when requested by a landowner or manager and only on properties where WS and a cooperating entity sign a Memorandum of Understanding, Work Initiation Document, or another comparable document. Upon receiving a request for assistance, WS could conduct activities on federal, state, tribal, municipal, and private properties in Alabama. 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, dams, 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 were a threat to human safety and to property; areas where mammals negatively affect wildlife, including threatened or endangered species; and public property where mammals were negatively affecting historic structures, cultural landscapes, and natural resources. In addition, mammal damage management could occur at facilities owned or managed by the TVA when mammal species addressed in this assessment damage or pose threats of damage to property, to natural resources, to human safety, or to the reliability of electric system transmission. Chapter 4 also contains additional information on the affected environment.

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

WS and the TVA, through consultation with the ADCNR, defined the issues related to managing damage caused by mammals in Alabama and identified the preliminary alternatives. WS and the TVA 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 TVA 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 potential impacts on those major issues:

- Issue 1 - Effects of Mammal Damage Management Activities on Target Mammal Populations
- Issue 2 - Effects of Mammal Damage Management Activities on Non-target Wildlife Species Populations, Including Threatened and Endangered Species
- Issue 3 - Effects of Mammal Damage Management Activities on Human Health and Safety
- Issue 4 - Effects of Mammal Damage Management Activities on the Aesthetic Value 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**

WS and the TVA identified several additional issues during the development of the EA. WS and the TVA considered those issues but did not analyze 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 TVA developed the following three alternatives to respond to the issues identified in Chapter 2 of the EA and to meet the need for action addressed in Chapter 1 of the EA. Chapter 4 of the EA provides a detailed discussion of the effects associated with the alternatives on the issues. 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. WS would recommend and use 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 in the formulation of each damage management strategy. However, WS would not always apply non-lethal methods as a first response to each 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 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 Alternative 2, 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 provided through personal or telephone consultations and through site visits. Under this alternative, those people experiencing damage would be responsible for the burden of resolving threats or damage associated with mammals. Those persons could employ 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 the use of Gonacon™, immobilizing drugs, euthanasia chemicals, and shooting from aircraft would have limited availability. Under this alternative, Gonacon™ would only be available to the ADCNR<sup>1</sup>, while immobilizing drugs and euthanasia chemicals would only be available to the ADCNR or appropriately licensed veterinarians and people under their supervision. As was discussed in Section 1.6 of the EA, shooting from aircraft is prohibited unless authorized pursuant to the Airborne Hunting Act (16 USC 742j-1(b)(1)). All other methods described in Appendix B of the EA would be available to those people experiencing damage.

### **Alternative 3 – No Mammal Damage Management Conducted by WS**

Under the no involvement alternative, WS would not provide assistance with any aspect of managing damage caused by mammals in Alabama. WS would refer all requests for assistance to the ADCNR 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 have limited availability to manage damage caused by mammals under this alternative would be Gonacon™, immobilizing drugs, euthanasia chemicals, and shooting from an aircraft. Gonacon™ is currently not available for use in Alabama and if registered, Gonacon™ would only be available for use by the ADCNR under this alternative and people under their authority. Immobilizing drugs and euthanasia chemicals would only be available for use by the ADCNR or appropriately licensed veterinarians and people under their supervision. Similar to Alternative 2, shooting from an aircraft could occur only when authorized pursuant to the Airborne Hunting Act. All other methods described in Appendix B of the EA would be available to those people experiencing damage.

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

WS and the TVA considered additional alternatives during the development of the EA to address the issues but did not analyze those alternatives in detail. Section 3.2 of the EA discusses the alternatives WS and the TVA considered but did not analyze in detail.

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<sup>1</sup>Gonacon™ is not currently registered for use in the State.

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

The WS program uses many standard operating procedures that improve the safety, selectivity, and efficacy of activities to manage damage associated with mammals. Chapter 3 of the EA discusses the standard operating procedures. WS would incorporate those standard operating procedures into activities conducted by WS if the decision-maker selected the proposed action alternative (Alternative 1) and when applicable, under the technical assistance alternative (Alternative 2), if selected. If the decision-maker selected the no involvement by WS alternative (Alternative 3), 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**

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, the TVA, and the ADCNR. 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 analysis provided information needed to make informed decisions when selecting the appropriate alternative to address the need for action. The following resource values in Alabama 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 Mammal 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 WS could employ all or a combination of methods to resolve a request for assistance. WS could recommend and/or 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.

WS and other entities could use non-lethal methods that would be available to exclude, harass, disperse, or translocate target wildlife from areas where damage or threats were occurring. Non-lethal methods available 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 WS or another entity employed those non-lethal methods. In addition, live-capture methods (*e.g.*, cage traps, foothold traps) could be employed to capture animals of the target species. WS would give preference to non-lethal methods when addressing requests for assistance under Alternative 1 and Alternative 2. However, WS would not necessarily employ non-lethal methods to resolve every request for assistance, especially if WS' personnel, using the WS Decision Model, deemed certain non-lethal methods to be inappropriate to resolve a specific request for assistance. For example, in situations where the requesting entity had already attempted to resolve the damage or threats of damage using non-lethal methods, WS could recommend or use non-lethal methods.

Many people regard non-lethal methods as having minimal effects on overall populations of wildlife since individual animals would be unharmed. WS would not employ non-lethal methods over large geographical areas or apply non-lethal methods 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.

WS and other entities often employ lethal methods to reinforce non-lethal methods and to remove those animals that WS and other entities have 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, people could request direct operational assistance from WS where WS employs lethal methods to remove target species. The number of individuals of each target species that WS could remove from a species' population annually using lethal methods would be dependent on several factors. Those factors would include the number of requests for assistance WS receives, the number of individuals involved with the associated damage or threat, the efficacy of methods WS employs, and the number of individual animals the ADCNR authorizes WS to remove, when required. WS based the levels of estimated annual lethal removal of target species that could occur under the proposed action alternative on activities that WS conducted to address previous requests for assistance. In addition, WS based the estimated annual lethal removal levels on additional efforts of WS to address requests for assistance.

Those people experiencing damage or threats could remove mammals themselves under any of the alternatives when the ADCNR authorizes the removal. Therefore, other entities could remove those animals WS lethally removes annually to alleviate damage in the absence of involvement by WS. In some cases, a landowner or their designee can lethally remove individual animals of certain species at any time they cause damage without the need to have specific authorization from the ADCNR. In addition, a resource owner could seek assistance from private businesses to remove mammals causing damage or remove animals during the regulated hunting and/or trapping seasons in the State. Since the lack of WS' direct involvement does not preclude the lethal removal of mammals by those people experiencing damage or by other entities, WS' involvement in the removal of those animals under the proposed action would not be additive to the number of animals that other entities could lethally remove in the absence of WS' involvement. The number of mammals lethally removed annually would likely be similar across the alternatives, since the lethal removal 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 lethal removal of mammals under Alternative 1, would not be additive to the number of animals that could be removed 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. Gonacon<sup>TM</sup>, immobilizing drugs, euthanasia chemicals, and shooting from an aircraft would be the only methods that would have limited availability to other entities under all of the alternatives. Based on the evaluation in the EA, the availability of Gonacon<sup>TM</sup>, immobilizing drugs, euthanasia chemicals, and shooting from an aircraft for WS to use under the proposed action alternative would not pose significant environmental risks when used by trained personnel of WS and in accordance with their use guidelines.

Based on those quantitative and qualitative parameters addressed in the EA, the proposed levels of removal for each mammal species addressed under the proposed action alternative (Alternative 1) would be of low magnitude when compared to population trend data, population estimates, and/or harvest data. The number of mammals lethally removed annually under the alternatives would likely be similar since

the removal of mammals could occur despite no involvement by WS. WS does not have the authority to regulate the number of mammals removed annually by other entities.

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

## **Issue 2 - Effects of Mammal Damage Management Activities on Non-target Wildlife Species Populations, Including Threatened and Endangered Species**

Another issue often raised is the potential impacts to populations of wildlife that WS could lethally remove unintentionally as non-targets during damage management activities. While WS would incorporate techniques to minimize the risks of lethally removing non-target wildlife, the potential does exist for the unintentional removal of non-targets during damage management activities.

The species and number of individual animals that WS removed unintentionally during previous activities to manage mammal damage are representative of non-targets that WS could lethally remove under the proposed action alternative. Although additional species of non-targets could be lethally removed by WS, removal of individuals from any species would not likely increase substantively above the number of non-targets removed annually by WS during previous damage management activities. In addition, many of the species that WS could lethally remove or live-capture as non-targets could also be species that WS removes intentionally when individual animals of those species cause damage or pose a threat of damage. Therefore, the analyses in the EA evaluate cumulative removal for each of those species under Issue 1 in Chapter 4 of the EA and the annual removal level for each species includes individual animals that WS could remove unintentionally during damage management activities targeting other species.

For example, the EA evaluates an annual lethal removal of up to 500 raccoons by WS. WS could lethally remove raccoons intentionally during activities targeting raccoons causing damage. In addition, WS could remove raccoons unintentionally during other damage management activities despite efforts by WS to avoid non-target removal of raccoons. To evaluate the cumulative removal of raccoons that could occur by WS annually, the annual lethal removal of 500 raccoons by WS that the EA evaluates includes those raccoons that WS could remove intentionally as target animals or unintentionally as non-targets.

Under the no involvement by WS alternative, WS would not provide assistance 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 provide direct operational assistance with using methods to alleviate mammal damage or threats. Similar to the no WS involvement alternative, under the technical assistance alternative, if people receiving recommendations from WS used methods as intended and with regard for non-target hazards, those methods would not result in the decline of non-target species' populations. If WS provided requesters with technical assistance but those persons did not implement any of the recommended actions and took no further action, the potential impacts to non-targets would be lower than the potential impacts associated with 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. If those people receiving technical assistance from WS implement recommended methods or techniques inappropriately or implement other methods that WS did not recommend, the risks to non-targets would likely increase. When providing 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 of people to reduce damage and threats caused by mammals would be variable under Alternative 2 and Alternative 3, since the skills and abilities of the person implementing damage management actions or the availability of other entities capable of providing assistance could determine the level of success in resolving damage or the threat of damage. If people or other entities apply those methods available as intended, risks to non-targets would be minimal to non-existent. If people or other entities apply methods available incorrectly or apply those methods 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 people 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 removal 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 threatened or endangered 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 nor their critical habitats. In addition, WS determined that the proposed damage management program would not adversely affect any of the species listed by the ADCNR in the State. The United States Fish and Wildlife Service and the ADCNR have concurred with WS' determination.

### **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 people use methods incorrectly or without regard for human safety, risks to human safety would increase under any of the alternatives when employing available methods. The EA determined that the availability of Gonacon™, immobilizing drugs, euthanasia chemicals, and shooting from aircraft would not increase risks to human safety from the use of those methods under the proposed action alternative. Although risks do occur from the use of Gonacon™, immobilizing drugs, euthanasia chemicals, and aircraft, when using those methods in consideration of human safety, the use of those methods would not pose additional risks 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 2009 through FY 2013. 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 Mammal Damage Management Activities on the Aesthetic Value of Mammals**

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 for use under each of the alternatives could 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 removal 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 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, Gonacon™, immobilizing drugs, euthanasia chemicals, and shooting from an aircraft would be the only methods that would have limited availability to all entities under the alternatives. The ability of WS to provide direct operational assistance under the proposed action alternative would ensure WS employs methods as humanely as possible. Under the other alternatives, other entities could use methods inhumanely if used inappropriately or without consideration of mammal behavior. However, the skill and knowledge of the person implementing methods to resolve damage would determine the efficacy and humaneness of methods. 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 other people perceiving the action 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.

#### **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 the EA that have established hunting and/or trapping seasons include woodchuck, gray squirrel, fox squirrel, eastern cottontail, raccoon, river otter, mink, striped skunk, coyote, gray fox, red fox, bobcat, opossum, feral swine, and white-tailed deer. WS would have no impact on the ability to harvest those target species during the annual hunting and/or trapping seasons under Alternative 2 and Alternative 3 since WS would not provide direct operational assistance with managing damage associated with those species. However, resource/property owners may remove mammals under permits issued by the ADCNR, 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 ADCNR could continue to regulate mammal populations through adjustments in allowed harvest during the regulated hunting and trapping season and through permits to manage damage or threats of damage.

The magnitude of lethal removal addressed in the proposed action would be low when compared to the mortality of those mammal species from all known sources. When WS' proposed removal of mammals was included as part of the known mortality of mammals and compared to the best population information available for those species, the impact on a species' population was below the level of removal required to lower population levels. The ADCNR would determine the number of mammals removed annually through the issuance of permits, when required, and by adjusting allowed harvest during the hunting and trapping seasons.

With oversight by the ADCNR, the number of mammals removed by WS would not limit the ability of those persons interested to harvest mammals during the regulated season. WS would report removal activities to the ADCNR annually to provide an opportunity for the ADCNR to incorporate any removal by WS into population management objectives established for mammal populations. Based on the limited removal proposed by WS and the oversight by the ADCNR, WS' annual removal of mammals to alleviate damage would have no effect on the ability of those people interested to harvest mammals during the regulated harvest season.

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

The EA did not identify significant cumulative environmental impacts associated with 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 considering known sources of mortality. The unintentional removal of non-targets would not reach a magnitude where significant cumulative effects would occur to a species' population. The scoping and analysis conducted for the EA did not identify significant risks to public safety under Alternative 1 and Alternative 2 since only trained and experienced personnel would conduct and/or recommend damage management activities. There could be a slight increased risk to public safety when persons who reject assistance and recommendations conduct their own activities under Alternative 2, and when providing no assistance under Alternative 3. However, under all of the alternatives, those risks would not be to the point that the effects would be significant.

Activities conducted pursuant to the alternatives would not be expected to have any significant cumulative effects on the socio-cultural elements and economics of the human environment. WS would employ methods as humanely as possible by applying standard operating procedures to minimize pain and that allow WS to address wildlife in a timely manner to minimize distress under the proposed action alternative. The lethal removal of target mammal species by WS annually to alleviate damage would be a minor component to the known removal that occurs annually during the harvest seasons. With oversight of mammal removal, the ADCNR maintains the ability to regulate removal by WS to meet management objectives for mammals in the State. Therefore, the ADCNR could consider the cumulative removal of mammals, including removal by WS, as part of the objectives for mammal populations in the State. 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, I, the decision-maker have reached the following decision.

### **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 wildlife populations or 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, Alternative 1 (proposed action/no action) addresses the issues identified by 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 significantly impact the environment, property, human health and safety, target species, and/or non-target species, including threatened or endangered 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. Changes that broaden the scope of damage management activities in the State and that affect the natural or human environment would trigger the need for further analysis. In addition, the issuance of new environmental regulations could also trigger the need for further analysis. 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**

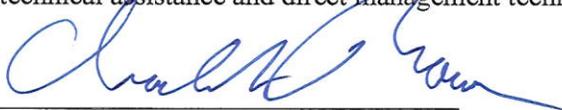
Based on the analyses provided in the EA, there are no indications that the proposed action (Alternative 1) would have a significant impact, individually or cumulatively, on the quality of the human environment. I agree with this conclusion and therefore, find that an EIS should not be prepared. I base this determination on the following factors:

1. Mammal damage management, as conducted by WS in the State, would not be 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 were no unique characteristics, such as parklands, prime farmlands, wetlands, wild and scenic areas, or ecologically critical areas, that the proposed activities would be significantly affect. WS' standard operating procedures and adherence to applicable laws and regulations would further ensure that WS' activities would 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. The assessment did not identify significant cumulative effects. 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 Alabama.
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 threatened or endangered species currently listed in the State and the United States Fish and Wildlife Service 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**

I base this decision 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 would only conduct mammal damage management 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 Alabama 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

5/21/14  
Date

### **LITERATURE CITED**

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