

**DECISION AND FINDING OF NO SIGNIFICANT IMPACT
ENVIRONMENTAL ASSESSMENT: REDUCING BIRD DAMAGE IN THE STATE OF SOUTH
CAROLINA**

PURPOSE AND NEED FOR ACTION

The United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Wildlife Services (WS) program prepared an Environmental Assessment (EA) to analyze the potential impacts to the quality of the human environment from resolving damage and threats of damage associated with several species of birds (USDA 2017). The EA and this Decision ensure WS complies with the National Environmental Policy Act (NEPA), with the Council on Environmental Quality guidelines (see 40 CFR 1500), and with the APHIS' NEPA implementing regulations (see 7 CFR 372).

The EA addresses the need to manage damage and threats of damage associated with several bird species, including Canada geese (*Branta canadensis*), mallards (*Anas platyrhynchos*), feral waterfowl¹, wild turkeys (*Meleagris gallopavo*), great blue herons (*Ardea herodias*), cattle egrets (*Bubulcus ibis*), white ibis (*Eudocimus albus*), black vultures (*Coragyps atratus*), turkey vultures (*Cathartes aura*), ospreys (*Pandion haliaetus*), bald eagles (*Haliaeetus leucocephalus*), killdeer (*Charadrius vociferous*), laughing gulls (*Leucophaeus atricilla*), ring-billed gulls (*Larus delawarensis*), herring gulls (*Larus argentatus*), rock pigeons (*Columba livia*), mourning doves (*Zenaida macroura*), Eastern kingbird (*Tyrannus tyrannus*), American crows (*Corvus brachyrhynchos*), fish crows (*Corvus ossifragus*), horned larks (*Eremophila alpestris*), cliff swallows (*Petrochelidon pyrrhonota*), barn swallows (*Hirundo rustica*), American robins (*Turdus migratorius*), European starlings (*Sturnus vulgaris*), red-winged blackbirds (*Agelaius phoeniceus*), Eastern meadowlarks (*Sturnella magna*), common grackles (*Quiscalus quiscula*), brown-headed cowbirds (*Molothrus ater*), and house sparrows (*Passer domesticus*).

In addition to those species, WS could also receive requests for assistance to manage damage and threats of damage associated with several other bird species, but requests for assistance associated with those species would occur infrequently and/or requests would involve a small number of individual birds of a species. Damages and threats of damages associated with those species would occur primarily at airports where individuals of those species pose a threat of aircraft strikes. Appendix E in the EA contains a list of species that WS could address in low numbers and/or infrequently when those species cause damage or pose a threat of damage.

WS previously developed EAs that analyzed the need for action to manage damage associated with several bird species in South Carolina. Section 1.4 in the EA provides further discussion on the previous EAs developed by WS to manage damage caused by several bird species. Since the new EA re-evaluated activities conducted under the previous EAs to address the new need for action and the associated affected environment, the outcome of this Decision for the new EA will supersede the previous EAs.

The need for action identified in Section 1.2 of the new EA arises from requests for assistance that WS receives. The EA evaluates the need for action to manage damage associated with birds, 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. WS defined the issues associated with meeting the need for action and identified preliminary alternatives through consultation with the South Carolina Department of Natural Resources (SCDNR) and the United States Fish and

¹Free-ranging or feral domestic waterfowl refers to captive-reared, domestic, of some domestic genetic stock, or domesticated breeds of ducks, geese, and swans. Examples of domestic waterfowl include, but are not limited to, mute swans, Muscovy ducks, pekin ducks, Rouen ducks, Cayuga ducks, Swedish ducks, Chinese geese, Toulouse geese, Khaki Campbell ducks, embden geese, and pilgrim geese. Feral ducks may include a combination of mallards, Muscovy ducks, and mallard-Muscovy hybrids.

Wildlife Service (USFWS). The new EA analyzes three alternatives in detail to meet the need for action and to address the issues analyzed in detail.

A discussion of WS' authority and the authority of other agencies, as those authorities relate to conducting activities to alleviate bird damage, occurs in Section 1.5 of the EA. In addition, several laws or statutes authorize, regulate, or otherwise would affect WS' activities. WS would comply with all applicable federal, state, and local laws and regulations in accordance with WS Directive 2.210. Section 1.7 of the EA identified several decisions WS would make based on the scope of the EA.

AFFECTED ENVIRONMENT AND ISSUES

Bird damage or threats of damage could occur statewide in South Carolina wherever those species occur. Those bird species addressed in the EA are capable of utilizing a variety of habitats in the State. Some of the species of birds addressed in the EA occur throughout the year across the State where suitable habitat exists for foraging and shelter. In addition, some of the species are gregarious (*e.g.*, form large flocks) during the migration periods or during the nesting periods, which can increase damage and threats of damage.

Issues are concerns regarding potential effects that might occur from a proposed activity. Federal agencies must consider such issues during the NEPA decision-making process. Section 2.2 of the EA describes the issues considered and evaluated in detail by WS as part of the decision-making process. In addition to those issues analyzed in detail, WS identified several issues during the development of the EA but WS did not consider those issues in detail. Section 2.3 of the EA discusses the rationale for the decision not to analyze those issues in detail. To identify additional issues and alternatives, WS also made the EA available to the public for review and comment through notices published in local media and through direct notification of interested parties. WS made the EA available to the public for review and comment by a legal notice published in *The State Newspaper* from June 20, 2017 through June 22, 2017. WS also made the EA available to the public for review and comment on the APHIS website on June 13, 2017 and on the regulations.gov website beginning on June 8, 2017. WS also sent a notice of availability directly to agencies, organizations, and individuals with probable interest in managing bird damage in the State. The public involvement process ended on July 28, 2017.

During the public comment period, WS received one comment related to the draft EA. WS has reviewed the comment to identify additional issues, alternatives, and/or concerns that WS did not address in the EA. The commenter acknowledged that birds can cause damage and that many non-lethal methods can be effective at reducing damage in some situations. The EA considered an alternative that required WS to implement only non-lethal methods and an alternative where WS would have implemented non-lethal methods before using lethal methods; however, WS did not consider those alternatives for the reasons provided in Section 3.2 of the EA. In addition, Alternative 1 would be similar to those alternatives because WS' personnel would consider the use of non-lethal methods prior to using lethal methods when implementing non-lethal methods was practical and effective. Based on further review of the draft EA, WS incorporated minor editorial changes into the final EA. Those minor changes enhanced the understanding of the EA, but did not change the analysis provided in the EA.

ALTERNATIVES

The EA evaluated three alternatives in detail to respond to the need for action discussed in Chapter 1 and the issues identified in Chapter 2 of the EA. Section 3.1 of the EA provides a description of the alternatives evaluated in detail. A detailed discussion of the effects of the alternatives on the issues occurs in Chapter 4 of the EA. WS considered additional alternatives but did not evaluate those alternatives in detail with the rationale provided in Section 3.2 of the EA. WS would incorporate those

standard operating procedures discussed in Section 3.3 and Section 3.4 of the EA into activities if the decision-maker selected the proposed action alternative (Alternative 1) and when applicable, WS would incorporate those standard operating procedures 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 by WS.

ENVIRONMENTAL CONSEQUENCES

Section 4.1 of the EA analyzes the environmental consequences of each alternative as those alternatives relate to the issues by analyzing the environmental consequences of each alternative in comparison to determine the extent of actual or potential impacts on the issues. Section 4.1 of the EA provides information needed to make informed decisions when selecting the appropriate alternative to address the need for action. The proposed action/no action alternative (Alternative 1) served as the baseline for the analysis and the comparison of expected impacts among the alternatives.

The following resource values in South Carolina 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 designated for threatened or endangered species), 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. The discussion below provides a summary of the environmental consequences of the alternatives discussed in the EA for each of the issues analyzed in detail.

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

Under Alternative 1, WS would incorporate non-lethal and lethal methods into an integrated methods approach in which WS' personnel could employ all or a combination of methods to resolve a request for assistance. Appendix B of the EA describes the methods that would be available for WS' personnel to use when addressing requests for assistance to manage bird damage. Non-lethal methods can capture, disperse, exclude, or otherwise make an area unattractive to birds that are causing damage; thereby, potentially reducing the presence of those birds at the site and potentially the immediate area around the site. The use of non-lethal methods that could cause a flight response in target birds may disperse those birds to other areas. WS' personnel would not employ non-lethal methods over large geographical areas or apply those methods at such an intensity that essential resources (*e.g.*, food sources, habitat) would be unavailable for extended durations or over such a wide geographical scope that long-term adverse effects would occur to a species' population. Therefore, non-lethal methods generally have minimal effects on overall populations of bird species because non-lethal methods do not cause harm to individual birds within a species.

A common issue is whether damage management actions would adversely affect the populations of target bird species when employing lethal methods. Lethal methods can remove specific birds that personnel of WS have identified as causing damage or posing a threat to human safety. The number of birds removed from a population by WS using lethal methods would be dependent on the number of requests for assistance received. In addition, the number of birds removed would be dependent on the number of birds involved with the associated damage or threat, the efficacy of methods employed, and the number of individual birds the USFWS and/or the SCDNR authorizes WS to remove, when required. Based on those quantitative and qualitative parameters addressed in the EA, the anticipated number of birds that

WS' employees could lethally remove annually to address requests for assistance under Alternative 1 would be of low magnitude when compared to population trend data, population estimates, and/or harvest data.

The lack of WS' direct involvement does not preclude the lethal removal of birds by those persons experiencing damage or seeking assistance from other entities. If the WS program only provided technical assistance under Alternative 2 or provided no assistance under Alternative 3, those people experiencing damage or threats could remove birds themselves or seek assistance with removal from other entities under any of the alternatives when the USFWS and/or the SCDNR authorizes the removal, when authorization is required. In some cases, a landowner or their designee can lethally remove individual birds of certain species at any time they cause damage without the need to have specific authorization from the USFWS (*e.g.*, depredation orders, control orders, unprotected species). In addition, a resource owner could seek assistance from private businesses to remove birds causing damage or they could remove certain bird species (*e.g.*, waterfowl) during the regulated hunting seasons in the State. Therefore, WS' involvement in the lethal removal of those birds under Alternative 1 would not be additive to the number of birds that could be removed by other entities in the absence of WS' involvement. The number of birds lethally removed annually would likely be similar across the alternatives because the removal of birds could occur even if WS was not directly involved with providing assistance (Alternative 3) or only provided technical assistance (Alternative 2). WS does not have the authority to regulate the number of birds lethally removed annually by other entities.

The magnitude of lethal removal addressed under Alternative 1 of harvestable bird species (*e.g.*, waterfowl) would be low when compared to the mortality of those bird species from all known sources. Based on the limited removal proposed by WS and the oversight by the USFWS and/or the SCDNR, annual removal by WS would have no effect on the ability of those persons interested to harvest certain bird species during the regulated harvest season. The WS program would have no impact on the ability to harvest those species during the annual hunting seasons under Alternative 2 and Alternative 3 because the WS program would have limited or no involvement with managing damage associated with those species. However, resource/property owners and other entities could remove birds resulting in impacts similar to Alternative 1 if WS implemented Alternative 2 or Alternative 3. The USFWS and/or the SCDNR could continue to regulate bird populations through adjustments in allowed removal during the regulated harvest season and through permits to manage damage or threats of damage.

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

WS' personnel have experience with managing animal damage and receive training in the employment of methods. Under Alternative 1 and Alternative 2, WS' employees would use the WS Decision Model to select the most appropriate methods to address damage caused by targeted birds and to exclude non-target species. To reduce the likelihood of dispersing, capturing, or removing non-target animals, WS would employ selective methods for the target species, would employ the use of attractants that were as specific to target species as possible, and determine placement of methods to avoid exposure to non-target animals. Section 3.3 and Section 3.4 in the EA discuss the standard operating procedures that WS' personnel would follow to prevent and reduce any potential adverse effects on non-target animals when personnel conduct activities under Alternative 1 and when applicable, under Alternative 2. Despite the best efforts to minimize non-target animal exposure to methods during program activities, the potential for WS' personnel to disperse, live-capture, or lethally remove non-target animals exists when applying both non-lethal and lethal methods to manage damage or reduce threats to safety.

However, WS' personnel have not lethally removed non-target animals during prior activities targeting birds in the State. WS' take of non-target animals during activities to reduce damage or threats to human safety associated with birds in South Carolina would be expected to be extremely low to non-existent.

Although WS' employees could lethally remove non-target animals, removal of individuals from any species is not likely to increase substantially. WS would continue to monitor activities, including non-target animal removal, to ensure the annual removal of non-target animals would not result in adverse effects to a species' population. WS' personnel have not captured or adversely affected any threatened or endangered species during previous activities conducted in South Carolina.

The ability of people to reduce damage and threats caused by birds 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-target animals would be similar to Alternative 1. If people or other entities apply methods available incorrectly or apply those methods without knowledge of animal behavior, risks to non-target animals would be higher under any of the alternatives. If frustration from the lack of all available assistance under Alternative 2 and Alternative 3 caused those people experiencing bird damage to use methods that were not legally available for use, risks to non-target animals would be higher under those alternatives. People have resorted to the use of illegal methods to resolve animal damage that have resulted in the lethal removal of non-target animals.

WS determined that activities conducted pursuant to the proposed action would not likely adversely affect those threatened or endangered species listed in the State by the USFWS and the SCDNR, including any designated critical habitats. Based on the consultation process, the USFWS and the SCDNR concurred with WS' determination that the current program targeting bird species would not likely adversely affect the status of threatened or endangered species or their designated critical habitats in the State (T. McCoy, USFWS, pers. comm. 2017, E. Cope, SCDNR, pers. comm. 2017).

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

The threats to human safety from methods would be similar across the alternatives because many of the same methods would be available. If WS implemented Alternative 2 or Alternative 3, the only methods that would not be available under either of those alternatives would be mesurol, alpha chloralose, and DRC-1339. The avicide DRC-1339 would only be available to WS' personnel when managing damage associated with blackbirds, crows, pigeons, starlings, and gulls. Alpha chloralose would only be available to WS' personnel when managing damage associated with waterfowl and pigeons. Mesurol would only be available to WS' personnel when attempting to deter crows from feeding on the eggs of federally designated threatened or endangered species.

If people used methods incorrectly or without regard for human safety, risks to human safety would increase under any of the alternatives that people employed those methods. The expertise of WS' employees in using the methods available would likely reduce threats to human safety because WS' employees would receive training and be knowledgeable in the use of methods. In addition, WS personnel would use the WS Decision Model when assessing a request for assistance (see WS Directive 2.201). As part of the WS Decision Model, WS' personnel consider risks to human health and safety when evaluating the methods available to manage the damage or threat of damage associated with a request for assistance. WS' personnel must also adhere to WS' directives when conducting activities (see WS Directive 1.101) and many of the directives address safety or relate to the safe use of methods (*e.g.*, see WS Directive 2.401, WS Directive 2.405, WS Directive 2.430, WS Directive 2.450, WS Directive 2.601, WS Directive 2.615, WS Directive 2.625, WS Directive 2.630, WS Directive 2.635). If WS implements Alternative 1, WS' personnel would also incorporate those standard operating procedures discussed in Section 3.3 and Section 3.4 of the EA to minimize risks to human health and safety.

Although risks do occur from the use of those methods available, when people use those methods in consideration of human safety, the use of those methods would pose minimal risk to human health and safety. No adverse effects to human health or safety occurred from the use of methods by WS to alleviate bird damage in the State from FY 2011 through FY 2016. Based on the use patterns of methods available to address damage caused by birds and the experience/training that WS' personnel receive, the implementation of the alternatives would comply with Executive Order 12898 and Executive Order 13045.

Issue 4 - Effects on the Aesthetic Values of Birds

Birds may provide aesthetic enjoyment to some people in the State, such as through observations, photographing, and knowing they exist as part of the natural environment. Methods available that WS or other entities could employ under each of the alternatives could result in the dispersal, exclusion, or removal of individuals or small groups of birds to resolve damage and threats. Therefore, the use of methods often results in the removal of birds from the area where damage was occurring or the dispersal of birds from an area. Since methods available would be similar across the alternatives, the use of those methods would have similar potential impacts on the aesthetics of birds. However, even under Alternative 1, the dispersal and/or lethal removal of birds would not reach a magnitude that would prevent the ability to view those species outside of the area where damage was occurring. The effects on the aesthetic values of birds would therefore be similar across the alternatives and would be minimal.

Issue 5 - Humaneness and Animal Welfare Concerns of Methods

WS also identified method humaneness and animal welfare as an issue. Since many methods addressed in Appendix B of the EA would be available under all the alternatives, the issue of method humaneness and animal welfare would be similar for those methods across all the alternatives. Mesurol, alpha chloralose, and DRC-1339 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 Alternative 1 would ensure WS' personnel employed methods as humanely as possible (see WS Directive 1.301, WS Directive 2.505). Under the other alternatives, other entities could use methods inhumanely if used inappropriately or without consideration of bird 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 birds or improperly identifying the damage caused by birds 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, many of those methods perceived as inhumane by certain individuals and groups would still be available for others to use to resolve damage and threats caused by birds.

CUMULATIVE IMPACTS OF ALTERNATIVE 1

No significant cumulative environmental impacts are expected from any of the three alternatives, including the proposed action/no action alternative (Alternative 1). Under Alternative 1, the lethal removal of target bird species by WS to alleviate damage or threats of damage would be of a low magnitude at the levels addressed in the EA when compared to the total known removal of those species and the populations of those species (see Section 4.1 and Appendix E). With management authority over bird populations, the USFWS and/or the SCDNR could adjust take levels, including the take by WS, to achieve population objectives for bird species. The unintentional removal of non-target animals would likely be limited and would not reach a magnitude where adverse effects would occur to a species' population. The WS program in South Carolina did not lethally remove any non-target animals unintentionally during activities to alleviate bird damage between FY 2011 and FY 2016. Based on the

methods available to resolve bird damage and/or threats and the analysis in the EA, the WS program in South Carolina does not anticipate the number of non-target animals lethally removed to reach a magnitude where declines in those species' populations would occur.

The WS program in South Carolina has received no reports or documented any effects to human safety from damage management activities conducted from FY 2011 through FY 2016 nor anticipates any to occur. Because those people seeking assistance from WS could remove birds from areas where damage was occurring themselves in the absence of any involvement by WS, WS' involvement would have no effect on the aesthetic value of birds in the area where damage was occurring if those persons would have removed those birds themselves. Therefore, WS does not expect to have any cumulative adverse effects on the aesthetic value of birds if the dispersal or removal occurs at the request of a property owner and/or manager. WS would employ methods as humanely as possible by applying standard operating procedures to minimize pain. The analysis in the EA indicates that an integrated methods approach to managing damage and threats caused by birds would not result in significant cumulative adverse effects on the quality of the human environment.

DECISION AND RATIONALE

I have carefully reviewed the final EA prepared to meet the need for action. I find the proposed action/no 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 final EA adequately address the identified issues, which reasonably confirm that no significant impact, individually or cumulatively, to animal populations or the quality of the human environment are likely to occur from Alternative 1, nor does Alternative 1 constitute a major federal action. Therefore, the analysis in the final EA does not warrant the completion of an Environmental Impact Statement.

Based on the analyses in the final EA, selecting Alternative 1 would best address the issues identified in Chapter 2 of the final EA and applying the associated standard operating procedures discussed in Chapter 3 of the final EA. Alternative 1 successfully addresses managing damage 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 threatened or endangered species. Alternative 1 offers the greatest chance of maximizing effectiveness and benefits to resource owners and managers and implementation of Alternative 1 presents the greatest chance of maximizing net benefits while minimizing adverse impacts to public health and safety. Implementing Alternative 1 would offer a balanced approach to the issues of humaneness, animal welfare, and aesthetics when considering all facets of those issues. Changes that broaden the scope of damage management activities in the State, changes that affect the natural or human environment, or changes from the issuance of new environmental regulations would trigger further analysis. Therefore, it is my decision to implement Alternative 1 as described in the final EA.

Finding of No Significant Impact

Based on the analyses provided in the final EA, there are no indications that 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 Environmental Impact Statement should not be prepared. I base this determination on the following factors:

1. WS' activities to manage damage in the State under Alternative 1 would not be regional or national in scope.

2. Based on the analyses in the final EA, the methods available under Alternative 1 would not adversely affect human safety based on their use patterns.
3. Alternative 1 would not significantly affect unique characteristics, such as parklands, prime farmlands, wetlands, wild and scenic areas, or ecologically critical areas. Standard operating procedures discussed in Section 3.3 and Section 3.4 of the final EA and WS' adherence to applicable laws and regulations would further ensure that activities conducted under Alternative 1 would not harm the environment.
4. The effects on the quality of the human environment under Alternative 1 are not highly controversial. Although there is some opposition to managing damage and the methods, this action is not highly controversial in terms of size, nature, or effect.
5. Based on the analysis documented in the final EA and the accompanying administrative file, the effects of Alternative 1 on the human environment would not be significant. The effects associated with implementing Alternative 1 are not highly uncertain and do not involve unique or unknown risks.
6. Alternative 1 would not establish a precedent for any future action with significant effects.
7. The final EA did not identify significant cumulative effects associated with implementing Alternative 1. The final 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 South Carolina.
8. Alternative 1 would not affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places, nor would Alternative 1 likely cause any loss or destruction of significant scientific, cultural, or historical resources.
9. WS has determined that Alternative 1 would not adversely affect any federally listed threatened or endangered 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. WS' activities conducted under Alternative 1 would comply with all applicable federal, state, and local laws.

I based 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 activities at the request of landowners/managers, 2) management actions would be consistent with applicable laws, regulations, policies and orders, and 3) the analysis did not identify significant effects to the human environment. As a part of this Decision, the WS program in South Carolina would continue to provide effective and practical technical assistance and direct management techniques that reduce damage and threats of damage.

for _____
 Janet Bucknall, Director-Eastern Region
 USDA/APHIS/WS
 Raleigh, North Carolina

 Date

LITERATURE CITED

USDA. 2017. Environmental Assessment: Reducing bird damage in the State of South Carolina. USDA-APHIS-Wildlife Services, Columbia, South Carolina.